PARKVIEW TRAUMA 2018

ANNUAL REPORT

PARKVIEW
ADULT TRAUMA CENTER

PARKVIEW
PEDIATRIC TRAUMA CENTER

INTRODUCTION

In 2018, Parkview Adult and Pediatric Trauma Centers achieved re-verification through the American College of Surgeons (ACS) Committee on Trauma. In 2000, Parkview was the first Indiana trauma center outside of Indianapolis to receive the ACS adult trauma center verification. Pediatric trauma verification followed in 2003, making Parkview the first in this region to receive pediatric trauma verification from the ACS.

With trauma and acute care surgery specialists on site around the clock at Parkview Regional Medical Center, Parkview Adult and Pediatric Trauma Centers work hand in hand with the following Parkview critical care services and others to optimize care:

- Trauma surgeons, orthopedic trauma surgeons, neurosurgeons, cardiovascular surgeons, pediatric surgeons, plastic surgeons, radiologists and anesthesiologists
- Emergency Department with board-certified emergency physicians and specially trained trauma nurses
- Parkview Samaritan medical transport (air and ground services) and Parkview EMS
- Parkview Women's & Children's Hospital and pediatric critical care physicians
- Parkview Mirro Center for Research and Innovation and Trauma Services conduct trauma research and participate in the Student Education & Research Fellowship (SERF) program

Our reach extends into rural communities since seven Parkview community hospitals have the ability to provide primary access and care to injured patients within northeast Indiana.

ACUTE CARE SURGERY PROGRAM

Parkview Regional Medical Center care is enhanced by the addition of an acute care surgery program, the first in this region. The trauma surgeons are board-certified in both general surgery and critical care medicine. Completing the team are trained trauma and acute care nurse practitioners and nurse clinicians who work together to improve patient outcomes and patient satisfaction, as well as expedite discharge planning.

PATIENT AND FAMILY SUPPORT

Traumatic injury presents patients and their families with a wide range of challenges. Providing support is an integral facet of our program — from child life specialists who work with young patients and anxious parents to chaplain availability 24/7. From trauma case coordinators to the treatment of post-traumatic stress, Parkview Trauma Centers provide necessary behavioral, emotional and physical health follow-up care.

PURSUING EXCELLENCE

Trauma care quality and performance improvement is a daily commitment for Parkview Trauma Centers. We incorporate both process and outcome measures in evaluating Performance Improvement and Patient Safety (PIPS). Through our extensive and well-established trauma registry, we monitor the care provided, develop action plans, and continually work to improve our processes to ensure the best possible care is provided to our patients. Parkview was among the initial, elite group of 65 hospitals nationwide to participate in the Trauma Quality Improvement Program (TQIP) of the American College of Surgeons.

OUTREACH AND EDUCATION

Parkview Trauma Centers are dedicated to providing ongoing trauma education programs to area physicians, advanced practice providers, nurses, prehospital providers and other allied health providers.

Beyond professional providers, our robust prevention programs enhance our commitment to reducing the number of lives impacted by life-threatening injuries.

As healthcare continues to evolve with new technologies and evidence-based protocols, Parkview Trauma Centers will continue to strive for the best possible outcomes for injured individuals, as well as collaborative, uniformly structured, high-quality trauma care across the region.

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MISSION STATEMENT

Our multidisciplinary team is dedicated to the treatment of victims of trauma, education of the community and prevention of injury. We strive for optimal outcomes by providing efficient, quality care, and are committed to supporting the caregivers in the crisis arena.

Parkview Adult and Pediatric Trauma Centers' Annual Report was published on February 1, 2019.

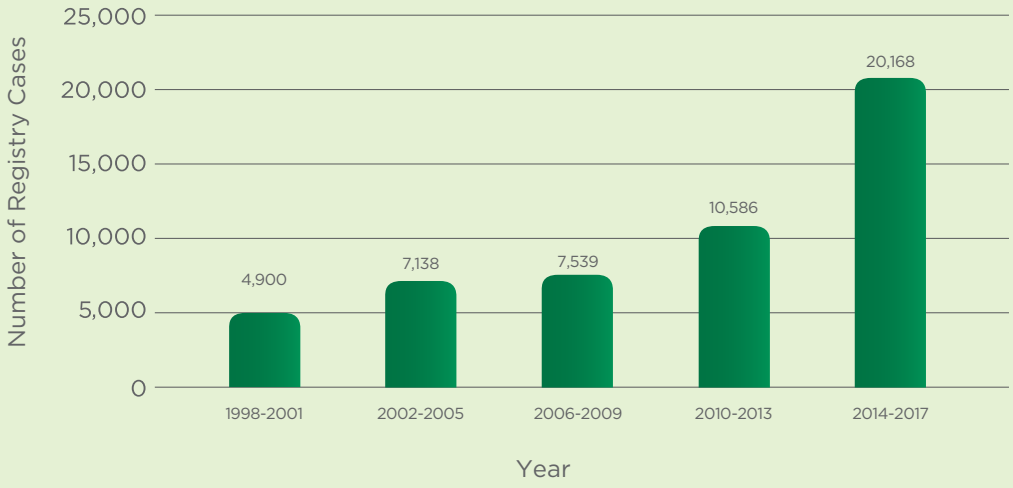
REGISTRY

A trauma registry is an electronic database with uniform data elements that describe the injury event, demographics, prehospital information, diagnosis, care, outcomes and cost of treatment. The registry database is used to collect, organize and analyze information on the trauma patient population and is essential to providing a trauma service.

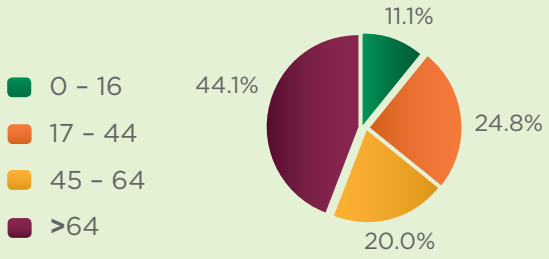
Left to right:
Becky Sickafoose, BSN, RN, CEN, CPEN, *Trauma Program Nurse, Trauma Services;* **Shanna Lemen, BSN, RN, CAISS,** *Trauma Program Nurse, Trauma Services*

The data has many uses, but is primarily used to monitor the continuum of care, from injury prevention through outcomes measurement. Currently, the Parkview trauma registry manages data for more than 59,000 patients. The Parkview trauma registry contributes clinical information to staff on a daily basis, quarterly to the Trauma Quality Improvement Program (TQIP) and Indiana State Department of Health, and yearly to the National Trauma Data Bank. Contribution to a larger database allows Parkview to identify trends in quality measurements, shape public policy and benchmark at the national, state and regional levels. ■

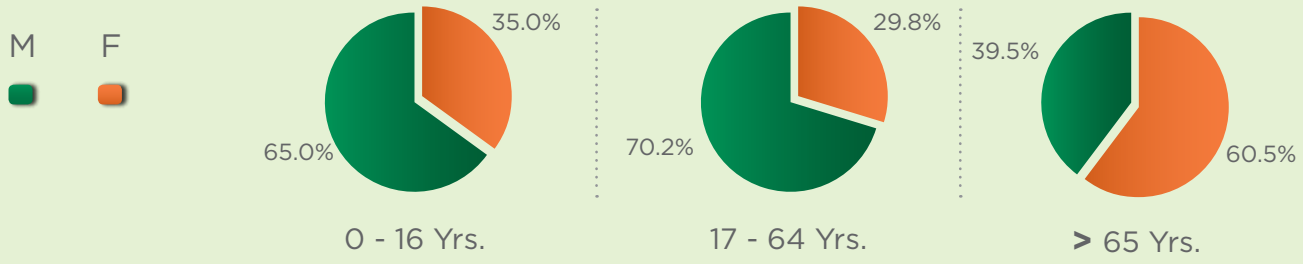
Trauma Registry Case Total 1998-2017



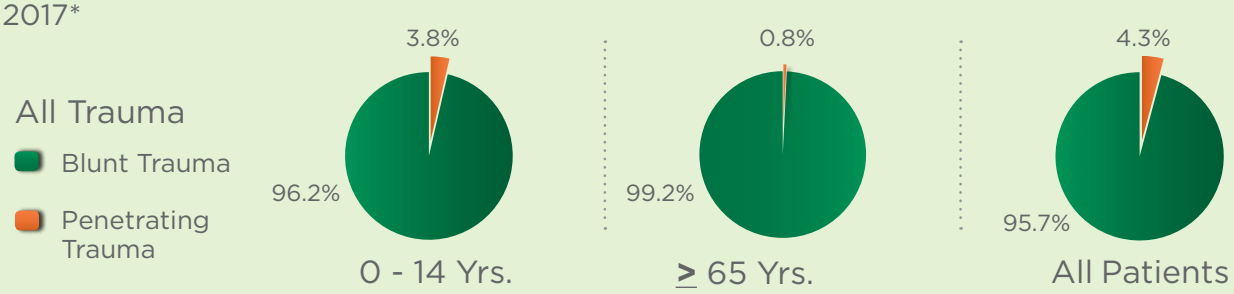
Age of All Injured Patients
2017



Age and Sex, All Injured Patients
2017



Trauma Type
2017*

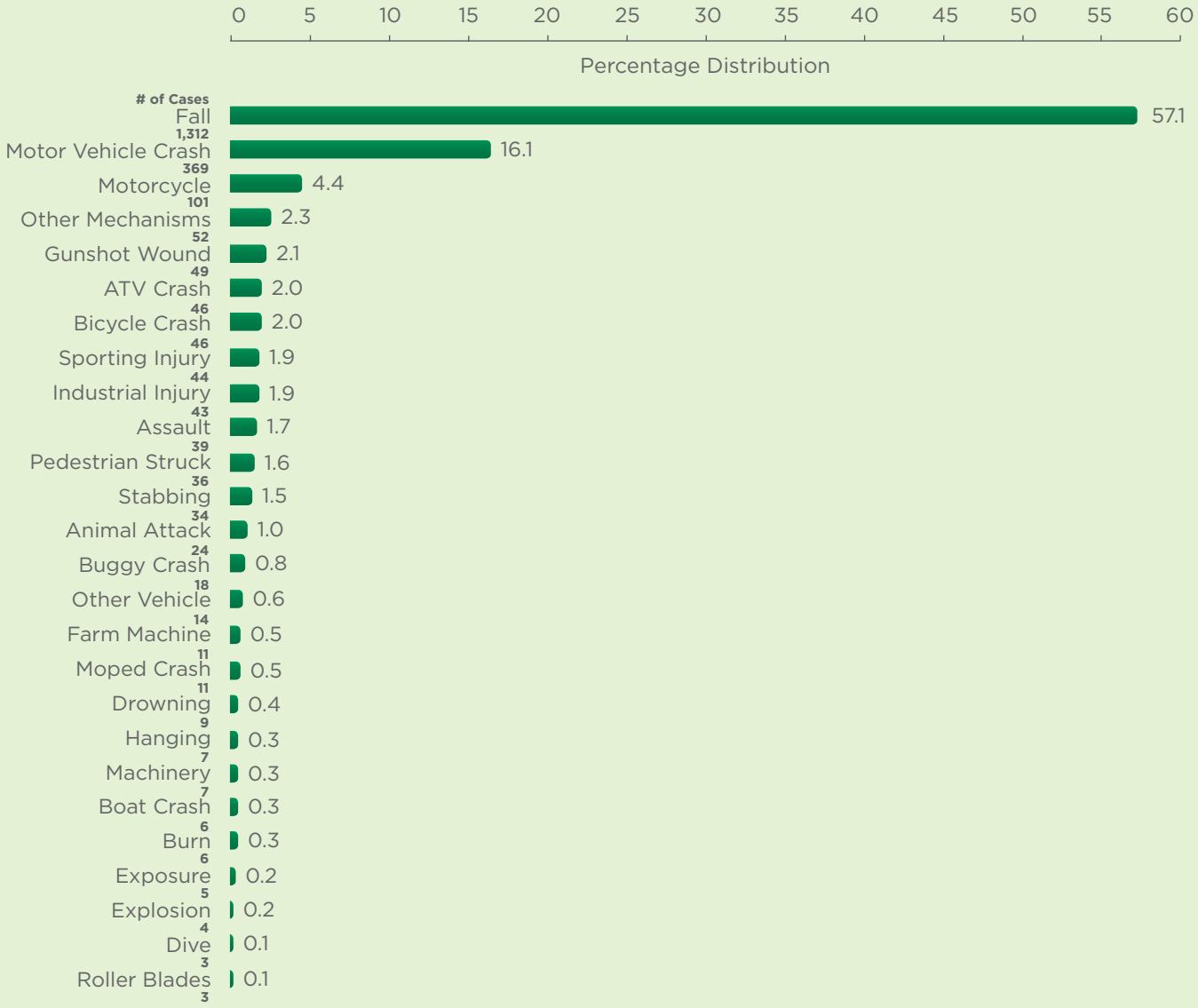


* Excluded 2 cases with Thermal Trauma.

REGISTRY *continued*

Mechanism of Injury, All Ages

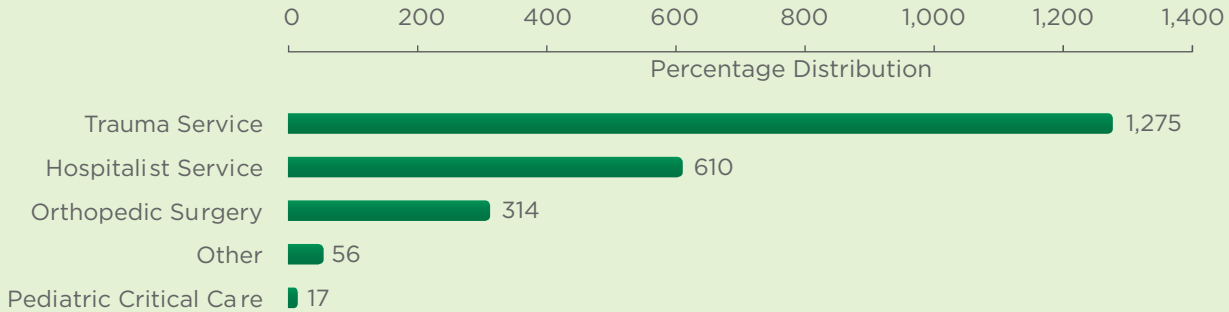
2017



Note: 8 cases with unknown mechanism of injury.

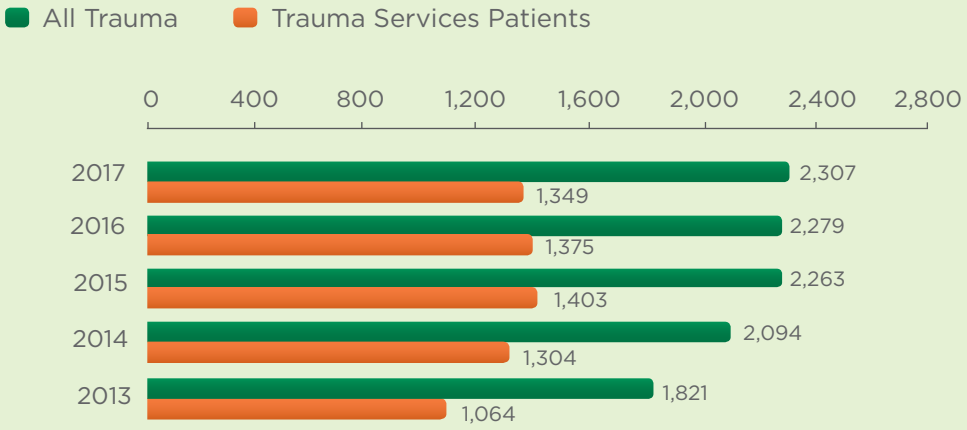
Admission Service, All Ages

2017, All Ages (n=2,307)



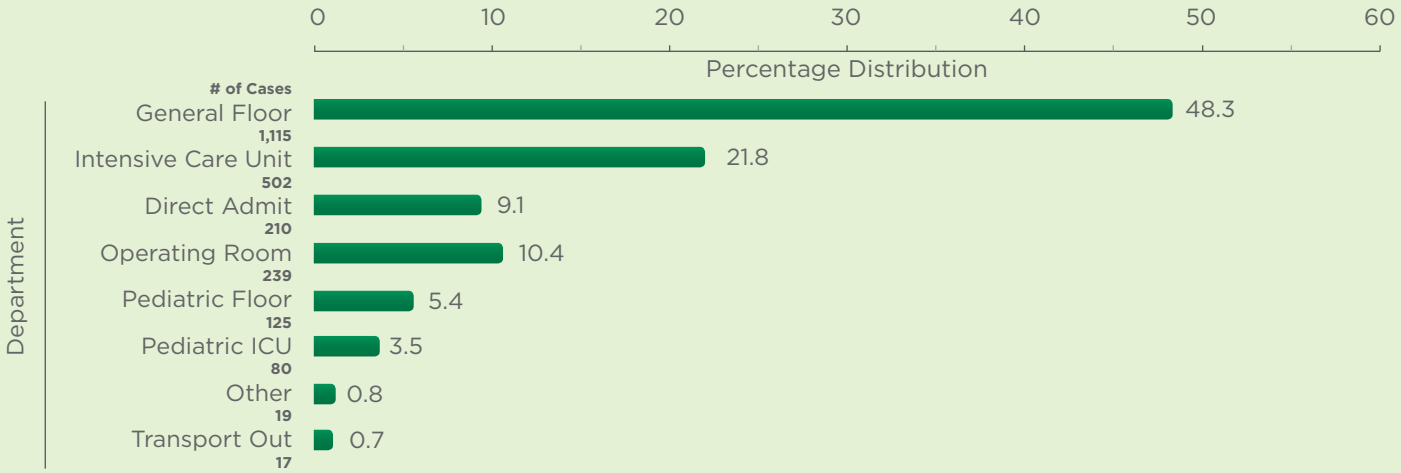
Note: Thirty-five cases were not admitted; these patients either expired or transferred out from the Emergency Department.

Trend of Trauma Admission by Service, All Ages
2013 – 2017*



* Excludes cases with isolated hip fractures from 2013 - 2014.

ER Disposition, All Ages
2017

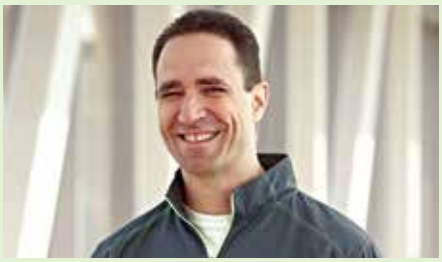


Parkview Physicians Group — Trauma & Acute Care Surgery

Raymond Cava, MD, FACS

Dawood Dalaly, DO

Janette Holub, MD



Joseph Muller, MD, FACS

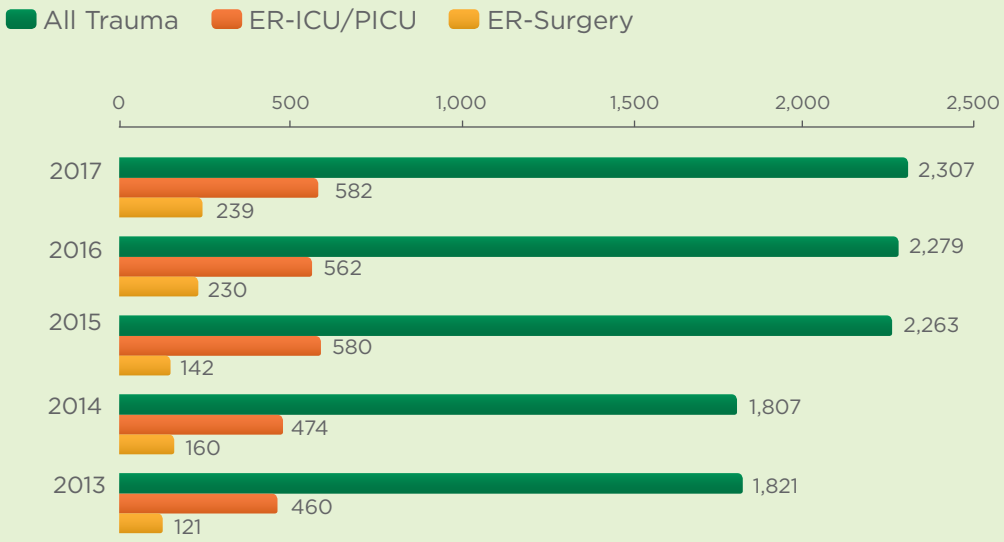
Dustin Petersen, MD, FACS

Lindsay Riegle, MD, FACS

Steven Santanello, DO

Volume Admitted from ER to ICU or Surgery, All Ages

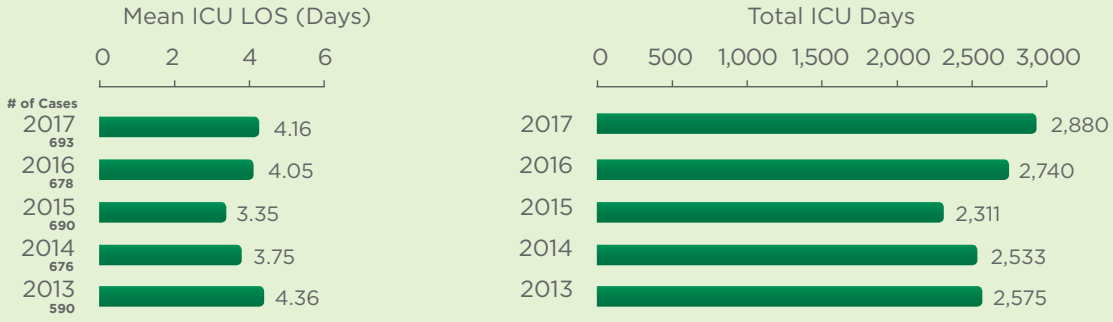
2013 – 2017*



* Excludes cases with isolated hip fractures from 2013 - 2014.

ICU Length of Stay (LOS), All Ages

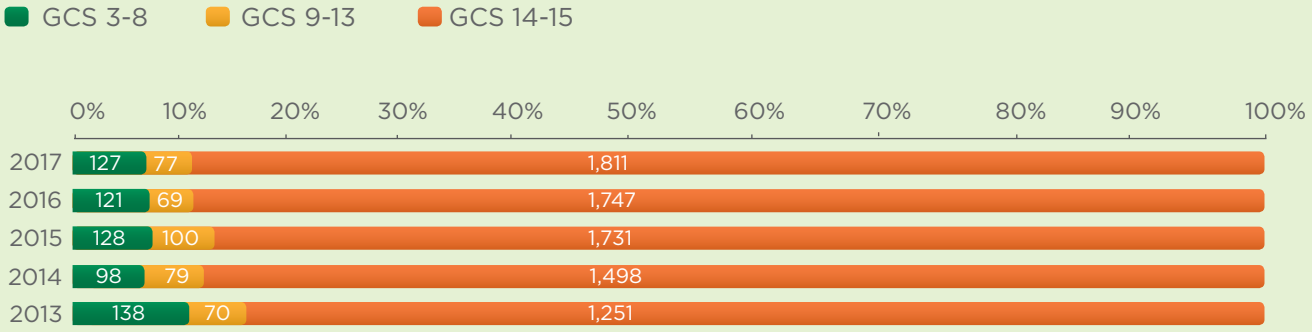
2013 – 2017*



* Excludes cases with isolated hip fractures from 2013 - 2014.

Volume (and %) of Patient Admission, All Ages Glascow Coma Score (GCS)

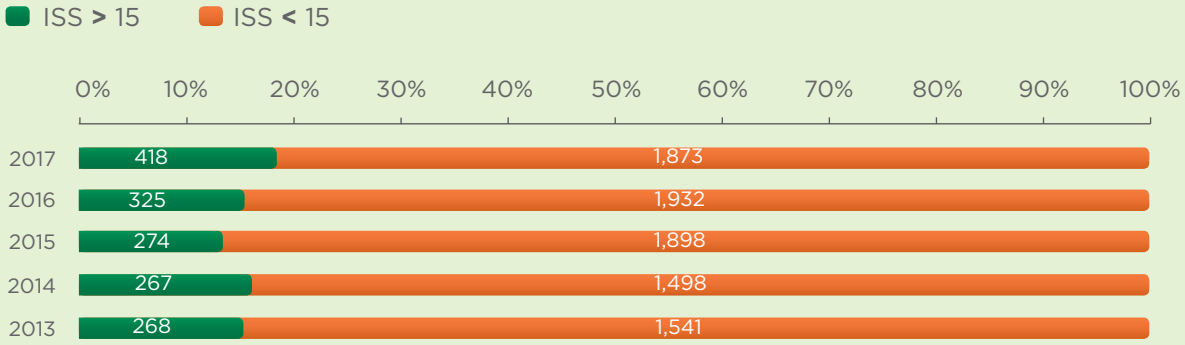
2013 – 2017*



GCS, 3-8 = Possible severe head injury; GCS, 9-13 = Possible moderate head injury;
GCS, 14-15 = Possible mild head injury
* Excludes cases for which GCS is unknown.
* Excludes cases with isolated hip fractures from 2013 - 2014.

Volume (and %) of Patients, All Ages Injury Severity Score (ISS)

2013 – 2017*



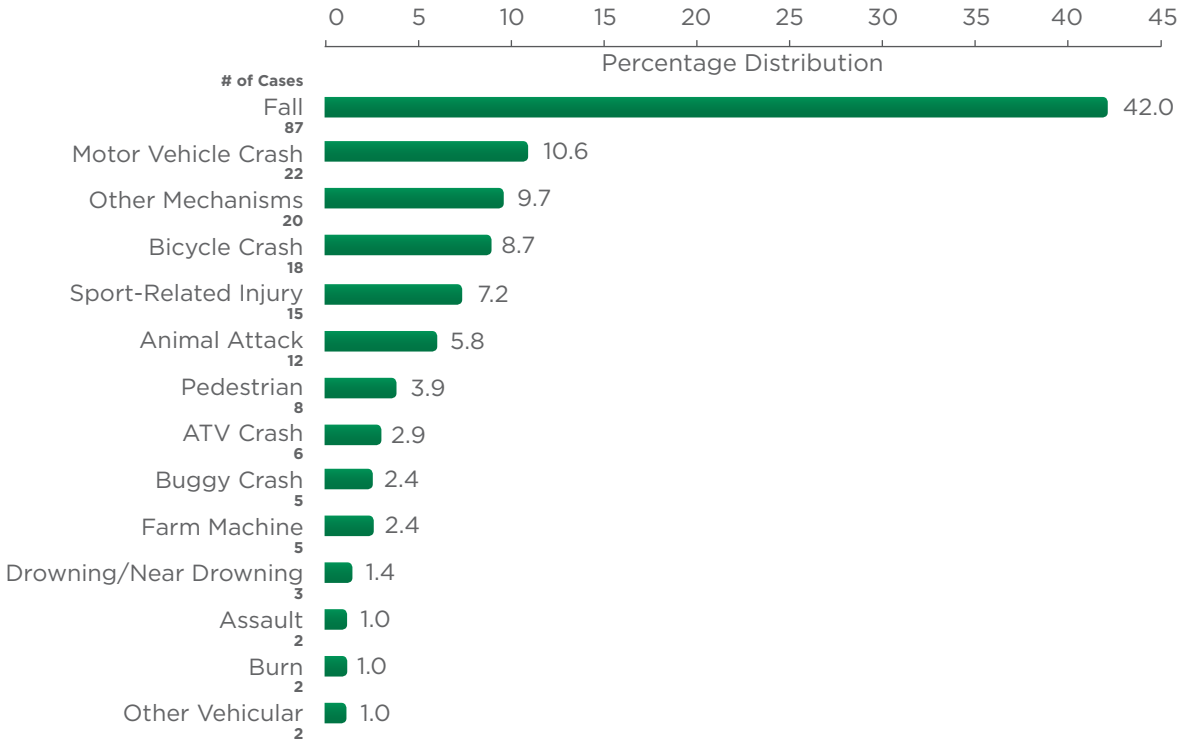
ISS > 15 can include life threatening, critical or fatal injuries.
* Excludes cases for which ISS is unknown.
* Excludes cases with isolated hip fractures from 2013 - 2014.

PEDIATRICS

As a verified Pediatric Trauma Center, Parkview's goal is to ensure quality of care through a multidisciplinary approach including the trauma team, pediatric coordinator, pediatric intensivist and ancillary services. Care of the pediatric patient and their family, from the time of the injury through discharge, is monitored and reviewed to improve processes that lead to positive outcomes. The Pediatric Trauma Center partners with Cincinnati Children's Hospital, a level 1 pediatric trauma center in Ohio, for guidance, performance improvement and benchmarking analysis. This partnership has allowed for improvements in the reduction of radiation risk among our pediatric patients, review of severely injured patients and consideration of different treatment modalities from a perspective outside of the health system. ■

Mechanism of Injury, Pediatric Patients (Ages 0 - 14)

2017

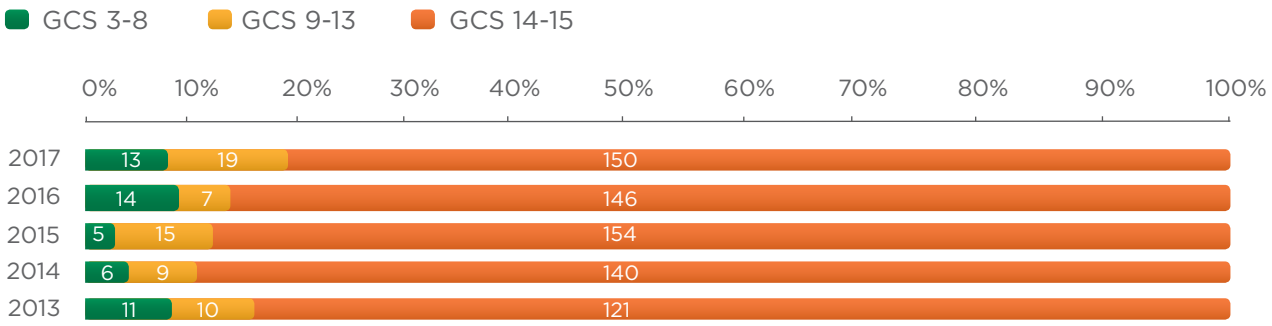


Note: 6 cases with unknown mechanism of injury.

PEDIATRICS *continued*

Volume (and %) of Pediatric Patients (Ages 0-14) Admission Glascow Coma Score (GCS)

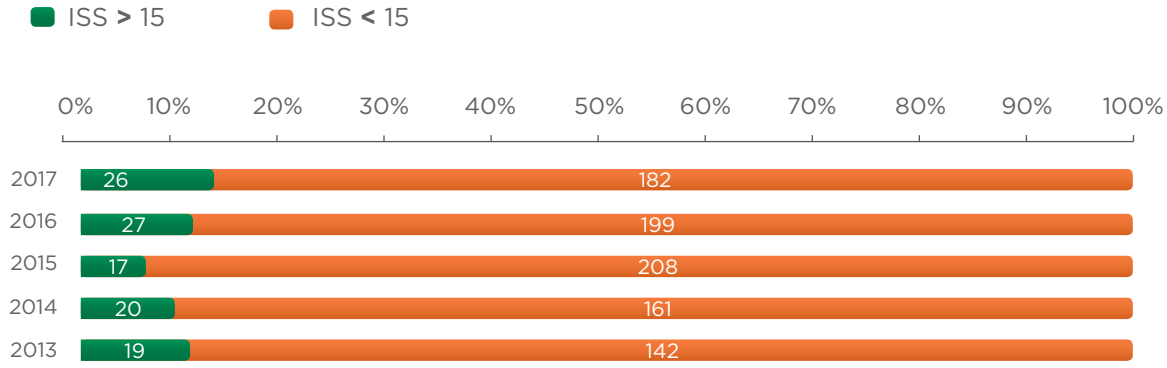
2013 – 2017*



GCS, 3-8 = Possible severe head injury; GCS, 9-13 = Possible moderate head injury;
GCS, 14-15 = Possible mild head injury
* Excludes cases for which GCS is unknown.

Volume (and %) of Pediatric Patients (Ages 0-14) Injury Severity Score (ISS)

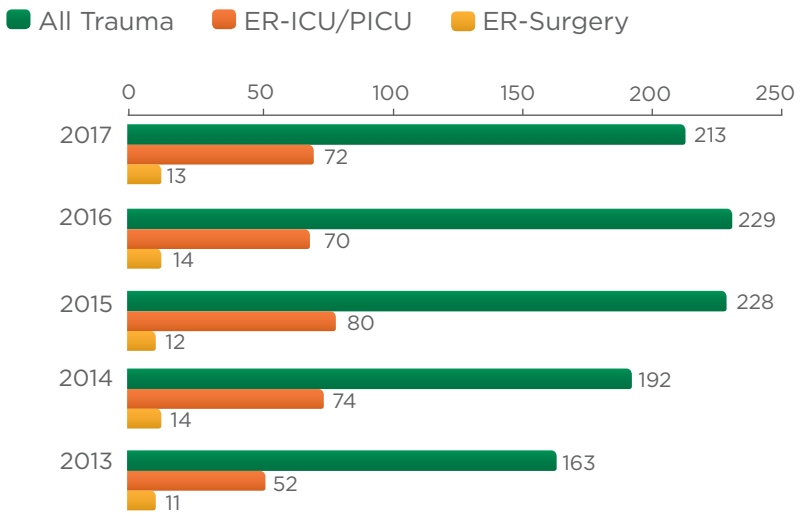
2013 – 2017*



ISS > 15 can include life threatening, critical or fatal injuries.
* Excludes cases for which ISS is unknown.

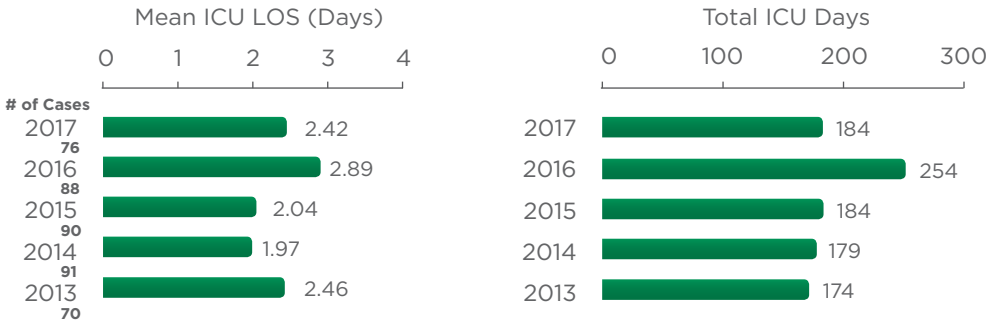
Volume of Pediatric Patients (Ages 0-14) Admitted from ER to ICU or Surgery

2013 – 2017



ICU Length of Stay (LOS), Pediatric Trauma (Ages 0 - 14)

2013 – 2017



GERIATRICS

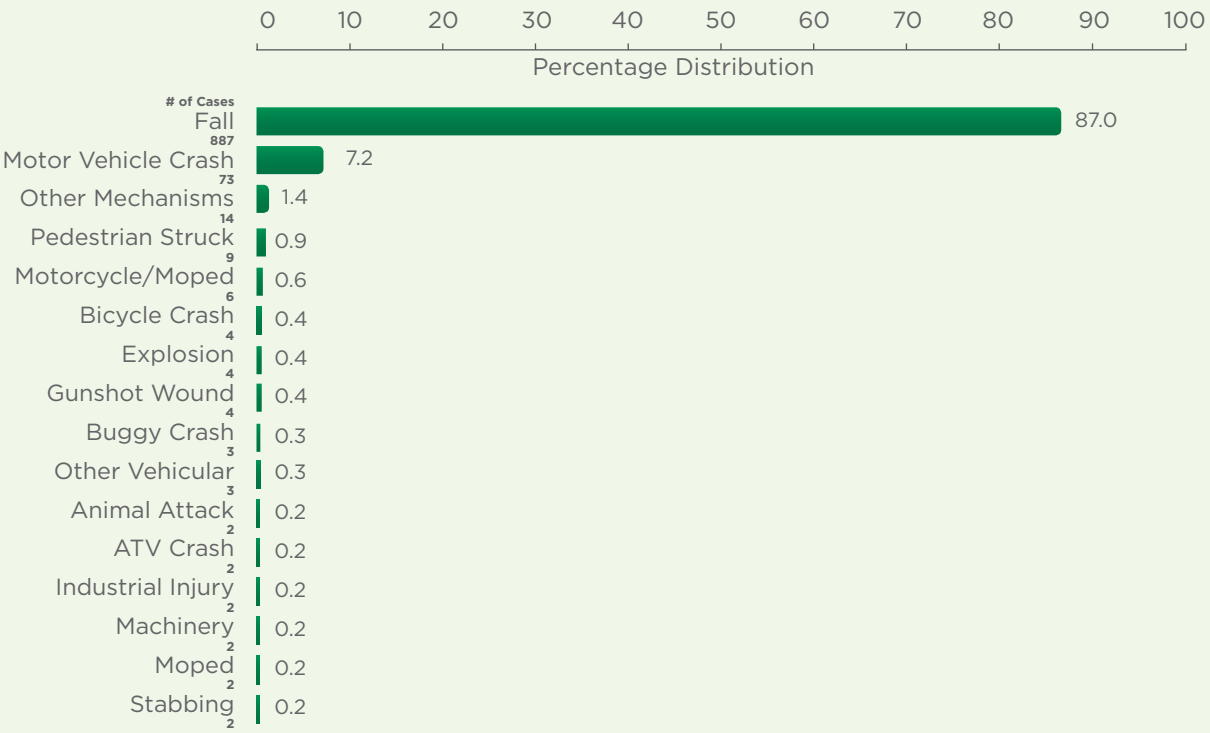
By 2050, there will be nearly 90 million adults over the age of 65 living in the United States. It is predicted that older patients will represent as much as 40% of traumatic injuries treated in emergency departments and trauma centers across the nation (Geriatric Trauma Statistics, 2018). In 2015, Parkview Trauma Centers began a Geriatric Hip Fracture Program and in 2017 developed the Geriatric Trauma Program to focus on the aging population. The American College of Surgeons (ACS) released recommended Geriatric Trauma Management Guidelines, which reflected much of Parkview's already established initiatives. Dedication to geriatric trauma was highlighted as a strength by the ACS site reviewers during the 2018 re-verification process at Parkview Trauma Centers on the Parkview Regional Medical Center campus. Our goal is to take a multidisciplinary approach to expanding older population initiatives and make a positive impact in our community, and throughout the region. ■

Geriatrc Trauma Statistics, (2018). Retrieved from www.conemaugh.org/services/trauma-services/geriatric-trauma-statistics

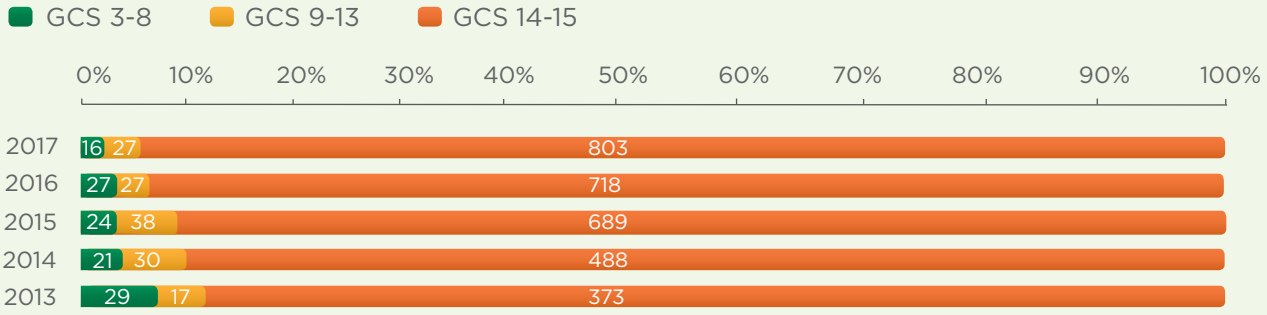
Marcy Rogers, MBA, RN, *Vice President, Surgical and Ancillary Services, Parkview Regional Medical Center*

Lisa Hollister, MSN, RN, *Director, Trauma & Acute Care Surgery*

Mechanism of Injury, Geriatric Patients (Ages ≥ 65)
2017



Volume (and %) of Geriatric Patients (Ages ≥ 65) Admission Glascow Coma Score (GCS)
2013 – 2017*

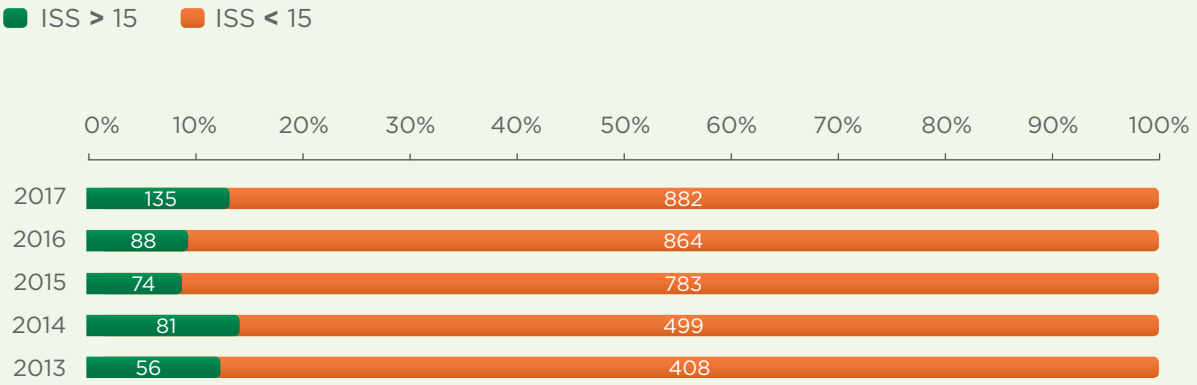


GCS, 3-8 = Possible severe head injury; GCS, 9-13 = Possible moderate head injury;
GCS, 14-15 = Possible mild head injury
* Excludes cases for which GCS is unknown.
* Excludes cases with isolated hip fractures from 2013 - 2014.

GERIATRICS *continued*

Volume (and %) of Geriatric Patients (Ages ≥ 65) Injury Severity Score (ISS)

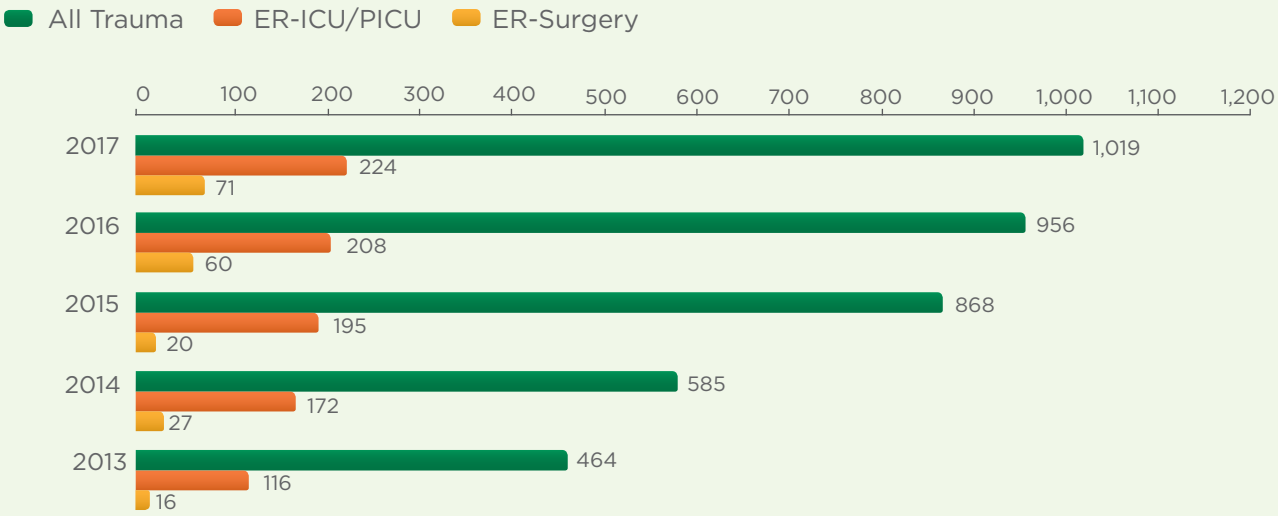
2013 – 2017*



ISS > 15 can include life threatening, critical or fatal injuries.
* Excludes cases for which ISS is unknown.
* Excludes cases with isolated hip fractures from 2013 - 2014.

Volume of Geriatric Patients (Ages ≥ 65) Admitted from ER to ICU or Surgery

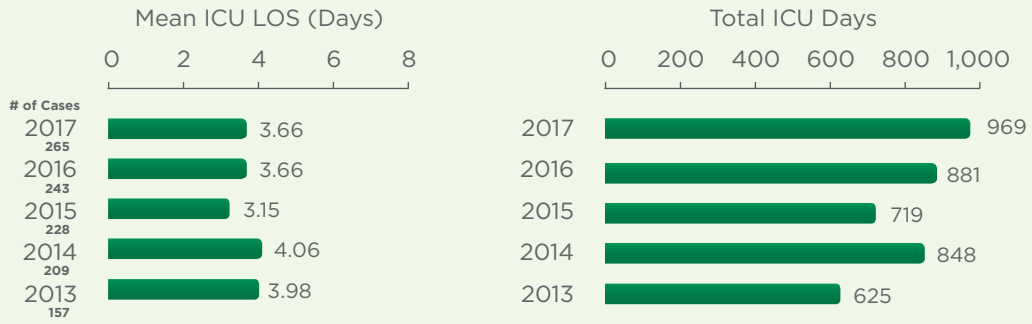
2013 – 2017*



* Excludes cases with isolated hip fractures from 2013 - 2014.

ICU Length of Stay (LOS), Geriatric Trauma (Ages ≥ 65)

2013 – 2017*



* Excludes cases with isolated hip fractures from 2013 - 2014.

MASS CASUALTY AND DISASTER PREPAREDNESS

A mass casualty incident (MCI) has a cascading impact on the hospital and the regional trauma system as a whole. It starts with the emergency department and escalates rapidly to involve physicians, nurses, police/safety and all staff. It impacts the operating room, the surgical-trauma intensive care unit and eventually all hospital departments. Receiving victims of a mass casualty incident by car and ambulance must be swift, while current hospital patients continue to receive care.

In the event of an incident of this scope, elective procedures may be cancelled or rescheduled and clinical staff may be shifted to assist in other areas. Daily routines for non-clinical areas could be impacted as priority is given to support the MCI and patient surge responses. Consideration is given to transferring patients from the impacted hospital to other hospitals in the Parkview Health system. As resources are stretched, alternate plans for resources and supplies may be initiated. Traffic flow in and around the hospital could be significantly impacted, forcing normal traffic patterns to be closed and/or diverted if the hospital is placed on restricted access. Family and friends of victims will need their own space, as well as support. News media will need to be managed, as information is coordinated and communicated in a timely manner. Elected officials will need to be briefed and may need to be escorted around the hospital.

To better prepare the hospitals to respond to such an incident, Parkview Public Safety's Emergency Preparedness Team in collaboration with Trauma Services is actively working on several important initiatives. Understanding that mass casualty preparedness and response is critical, several changes to the Emergency Operations Plan (EOP) have been made with a strong focus on MCI patient surge. A multi-disciplined Disaster Planning Committee (DPC) has been established to assist with planning and response efforts. Physicians, clinicians and non-clinicians have facilitated a process for patient throughput and triage that would occur during an MCI event. As part of the process to update the EOP, the DPC assists each department in developing Standard Operating Procedures (SOP) while outlining their response during MCI surge. Once the SOPs are complete, departments are trained and drilled on them. A timeline has been established to ensure that both clinical and non-clinical areas are drilling an MCI event weekly. The Parkview Disaster Planning Committee reviews the SOPs to ensure that they align and integrate with all departments for a coordinated response.

As updates to the EOP continue, training and drilling at the various departments continue on a weekly basis. This training expands to include multi-department drills, hospital-wide drills, and ultimately a Parkview Health system-wide drill. Training and drills identify areas for improvement in the plan. The objective is an all-hazards approach where departments are trained and drilled on all aspects of the EOP. Understanding the highest risks and vulnerabilities helps focus planning on the most critical aspects of the EOP.

The life cycle of an MCI event: Prevention, mitigation, preparedness, response and recovery is an ongoing process of plan updates, training, drilling and collaboration to ensure that Parkview Health system and Parkview Trauma Centers are ready for the unexpected. ■

STOP THE BLEED

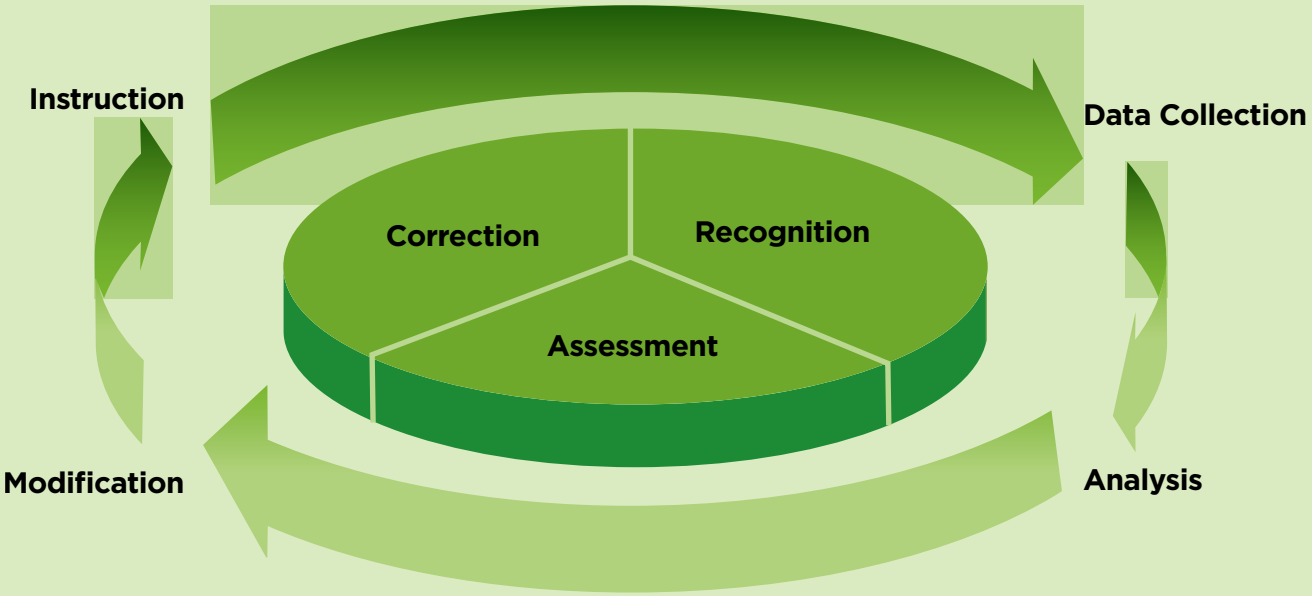
Part of Parkview's responsibility as a verified trauma center is to help plan, educate and train the community regarding mass casualty events. Although we sincerely hope that no one will ever have to experience these unspeakable events, the current reality is that anyone may be called upon to be a first responder, especially in school and community settings.

Parkview Trauma Centers is partnering to bring the Stop the Bleed campaign to Allen County high school-aged young adults through older adults. This is a national campaign aimed at educating the community to control life-threatening bleeding in natural or man-made mass casualty events. A group of high school students was brought together in 2018 through the Hugh O'Brian Youth Leadership Program (HOBY) to lead this initiative. These future leaders were asked to return to their local communities and use the skills they acquired to make a positive impact on their community. HOBY chose to connect Parkview Trauma Centers with local schools for training and fundraising that provide the schools with necessary supplies in the case of a mass casualty event.

The purpose of the campaign is to build national resilience by better preparing the public to save lives by raising awareness of basic actions to stop life-threatening bleeding following everyday emergencies and man-made and natural disasters. Education includes a video tutorial accompanied by medical professionals who demonstrate and then provide hands-on experience to participants in packing wounds and applying tourniquets to control bleeding until medical help arrives.

Lauren Quandt, MSN, RN-BC, CEN, *Injury Prevention and Pediatric Trauma Coordinator, Trauma Services*

TRAUMA PERFORMANCE IMPROVEMENT AND PATIENT SAFETY



American College of Surgeons: Committee on Trauma (2014). Resources for optimal care of the injured patient.

Parkview Regional Medical Center (PRMC) adult and pediatric trauma programs have adopted the Trauma Performance Improvement and Patient Safety (TPIPS) model. This consists of a continuous, extensive and concurrent process of monitoring, assessing and evaluating trauma care utilizing a multidisciplinary approach to improve the process of care and its outcomes.

TPIPS ensures care provided is safe, efficient and effective to every injured patient, while simultaneously reducing unnecessary variations and preventing adverse outcomes. The process is highly supported by a trauma registry that has been utilized by the trauma center for more than 20 years. The registry contains the concurrent data providing the necessary information to identify all opportunities for improvement. The continuous and concurrent data collection allows the TPIPS program to closely monitor and continually improve internal and external structures, processes and outcomes on a real-time basis, while also providing valuable data on trauma care in the region.

Risk-adjusted benchmarking is pertinent to improving performance and outcomes through comparative analysis across appropriately risk-adjusted populations. PRMC remains engaged and an active participant in many risk-adjusted benchmarking programs. TQIP (Trauma Quality Improvement Program) is a national, risk-adjusted benchmarking program geared towards improving trauma patient care and outcomes. PRMC is a proud participant in adult and pediatric TQIP.

Practice guidelines, protocols and algorithms are derived from evidence-based and peer-reviewed research. The highly developed TPIPS process at Parkview allows us to actively lead and develop trauma research initiatives. The adult and pediatric trauma centers at PRMC remain committed to and engaged in the continuous pursuit of improving the care of all injured patients through a well-defined and utilized TPIPS process. ■

Sarah Hoeppner, MSN, RN, CCRN, TCRN, *Adult Trauma Coordinator and Trauma Performance Improvement Specialist*

TRAUMA RESEARCH

The research personnel of the Parkview Adult and Pediatric Level II Trauma Center published two articles, analyzed data for two research projects and provided statistical assistance to two Student Education and Research Fellowship (SERF) program projects.

PUBLISHED ARTICLE I

Improved Survival for Rural Trauma Patients Transported by Helicopter to a Verified Trauma Center: A Propensity Score Analysis

Thein Hlaing Zhu, MBBS, FACE, FRCP; Lisa Hollister, RN, MSN; Dazar Opoku, MPH, and Samuel M. Galvagno, Jr., DO, PhD, MS, FCCM. (2018)
Academic Emergency Medicine 2018;25:44-53.
Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5813265/pdf/ACEM-25-44.pdf

Objectives: Recent studies using advanced statistical methods to control for confounders have demonstrated an association between helicopter transport (HT) vs. ground ambulance transport (GT) in terms of improved survival for adult trauma patients. The aim of this study was to apply a methodologically vigorous approach to determine if HT is associated with a survival benefit when trauma patients are transported to a verified trauma center in a rural setting.

Methods: The ascertainment of trauma patients age ≥ 15 years (n = 469 cases) by HT and (n = 580) by GT between 1999 and 2012 was restricted to the scene of injury in a rural area of 10 to 35 miles from the trauma center. The propensity score was determined using data including demographics, prehospital physiology, intubation, total prehospital time and injury severity. The propensity score matching was performed with different calipers to select a higher percentage of matches of HT compared to GT patients. The outcome of interest was survival to discharge from hospital. Identical logistic regression analysis was done taking into account each matched design to select an appropriate effect estimate and confidence interval (CI), controlling for initial vital signs in emergency department, the need for urgent surgery, intensive care unit admission and mechanical ventilation.

Results: Unadjusted mortality for HT compared to GT was 7.7% and 5.3% respectively ($p > 0.05$). The adjusted rates were 4.0% for HT and 7.6% for GT ($p < 0.05$). In a PS well-matched dataset, HT was associated with a 2.69-fold increase in odds of survival compared to GT patients [adjusted OR (AOR) = 2.69; 95% C.I. = 1.21 to 5.97].

Conclusions: In a rural setting, we demonstrated improved survival associated with HT compared to GT for scene transportation of adult trauma patients to a verified level II trauma center using an advanced methodologic approach, which included adjustment for transport distance. The implication of survival benefit to rural population is discussed. We recommend larger studies with multiple trauma systems be repeated using similar study methodology to substantiate our findings.

PUBLISHED ARTICLE II

Pelvic Hematoma and Hemodynamic Instability in the Absence of Fracture

Dustin J Petersen, MD, MPH. (2018)
J Trauma Acute Care Surg 2018;85(1):218-219.
Available at: https://journals.lww.com/jtrauma/Citation/2018/07000/Pelvic_hematoma_and_hemodynamic_instability_in_the.34.aspx

A short note on the article: An 86-year-old woman was evaluated for a large pelvic hematoma without pelvic fracture. Her pelvis was stable to manual compression. The patient developed signs of hemodynamic instability with mechanical urinary obstruction, right hydronephrosis and displacement of the bladder. The patient was treated at the operating theater for preperitoneal pelvic packing with six laparotomy sponges. The patient recovered. The use of preperitoneal pelvic packing for hemorrhage in the absence of pelvic fracture may represent a new and expanded criterion for this procedure in select cases.

STATISTICAL DATA ANALYSIS

Project 1: Motor Vehicle Trauma in Northeastern Indiana Admitted to Hospitals Affiliated with the Parkview Trauma System in 2013

ED Visits: The objective was to determine sex-specific and age-specific incidence rates (IR) per 100,000 residents by road user categories. There were 596 motor vehicle traffic accident cases (ICD-9 E-codes 810-819) visiting emergency departments (ED) by residents of the studied four counties (LaGrange, Noble, Whitley and Huntington) in 2013. It is a population-based study. The populations of the four counties were derived from the US Census Bureau population statistics for 2013.

Motor vehicle road users had the highest risk of occurrence at age 15-19 years in both sexes, the IR being at 736 (male at 679 and female at 795), as well as at age 20-24 years with the IR at 744 (male at 681 and female at 810). Females are at a higher risk of being affected than males in those age groups.

Motorcycle road users had the highest risk of occurence at age 20-24 years in both sexes, the IR being at 62 (male at 100 and female at 31). Males were three times more at risk than females. Pedal cyclists had the highest risk of injury < 15 years of age. **See Table on next page.**

Left to right:
Dazar Opoku, BSC, MPH, *Trauma Data Specialist, Trauma Services;* **Thein-Hlaing Zhu, MBBS, DPTM, FRCP, FACE,** *Trauma Epidemiologist, Trauma Services*

Incidence of Road User Category Motor Vehicle Traffic Accident Victims in ED Visits in Both Sexes at Parkview Trauma System in 2013

Road User Incidence Rate/100,000 Population							
Age Category	Motor Vehicle Users	Motorcycle Users	Occupant of Animal-Drawn Vehicle	Pedal Cyclist	Pedestrian	Other Vehicle	All Road Users
<15	112.53	2.89	5.77	17.31	5.77	17.31	161.58
15-19	735.68	43.28	0	8.66	25.97	51.93	865.5
20-24	743.57	61.96	10.33	0	0	30.98	846.84
25-34	541.99	50.29	5.59	0	16.76	50.29	664.92
35-44	275.96	52.07	0	10.41	5.21	36.45	380.11
45-54	187.21	50.23	9.13	0	4.57	27.4	278.52
55-64	186.2	46.55	0	10.34	10.34	25.86	279.3
65+	208.95	14.25	0	0	4.75	14.25	242.19
All ages	**300.73**	**34.77**	**3.86**	**7.08**	**8.37**	**28.97**	**383.8**

In Patients: The objective was to determine road user incidence rates/1,000 ED cases. There were 114 hospital inpatient cases arising from ED visits due to road trauma in 2013. Compared to ED visits of those age < 55 years, age ≥ 55 years had 2.1 times more risk of being admitted as inpatients for both the motor vehicle (325.0 vs. 152.5) and motorcycle road users (500.0 vs. 238.1) per 1,000 ED visits.

Project 2: Multimodel Pain Management Effectiveness in Geriatric Hip Fracture Patients

The hypothesis is, with multimodal therapy, the patients' pain scores will be decreased, and there will be fewer adverse events. There were 57 cases in the intervention (receiving IV acetaminophen) and 56 cases in the control group (receiving narcotics). Preliminary analysis using multiple linear regression did not show differences in changes in pain scores between the intervention and control groups. Further analysis would be done by adding modified or missing covariates into the model, viz. Charlson Comorbidity Index (CCI) and age-adjusted CCI, other comorbidity conditions not in the CCI, injury severity score (ISS), multiple fractures, concomitant injuries (head, chest or abdomen), type of hip fracture (pertrochanteric vs. transcervical), type of treatment (internal fixation vs. arthroplasty), hospital length of stay and complications. ■

PROVISION OF STATISTICAL DATA ANALYSIS ASSISTANCE TO STUDENT EDUCATION RESEARCH FELLOWSHIP (SERF) PROGRAM PROJECTS

Project 1: A Retrospective Analysis of Fall Patients and the Potential Contribution of Opioids

By Stephanie Adjei and Jake Muha, students

Descriptive and regression analyses were demonstrated by using SPSS software along with a discussion on scientific principles/concepts related to the formulation of a hypothesis/objective and its rationale. These were illustrated by using an article relevant to their project. The results were displayed as a poster presentation at the 31st Student Education Research Fellowship program reception held on Aug. 1, 2018 at the Parkview Mirro Center for Research and Innovation, Fort Wayne, Ind.

Project 2: Prevalence of Opioid-Related Deaths with Previous Naloxone Encounters in Allen County, Indiana: A Chart Review

By Ian Gatchell and Kristin Lytal, students

Appropriate statistical tests, such as a simple test for two proportions and a test of proportion trends (Cochran-Armitage test), were recommended to show statistical differences between two or more proportions. The results were displayed as a poster, as well as a podium presentation held on Aug. 1, 2018, at the Parkview Mirro Center for Research and Innovation, Fort Wayne, Ind.

PREVENTION

Trauma prevention programs reveal the Parkview Adult and Pediatric Trauma Centers' continuing commitment to reducing the number of lives impacted by life-threatening injuries.

Don't Text & Drive

Parkview's Don't Text & Drive (DT&D) campaign raised awareness about the dangers of distracted driving years before national campaigns proliferated. Parkview Trauma Centers have been deeply involved in the program, which continues to mature year after year. The program is an outreach to the community to help save lives by raising public awareness. In 2018, the Don't Text & Drive Campaign has been featured at more than 75 events and activities throughout Allen County and the surrounding communities including schools, parades, employee health fairs, community safety days and local events. Parkview continues to collaborate with Evans Toyota and the Indiana State Police to share the message of the Don't Text & Drive campaign.

Don't Text & Drive Testimonials

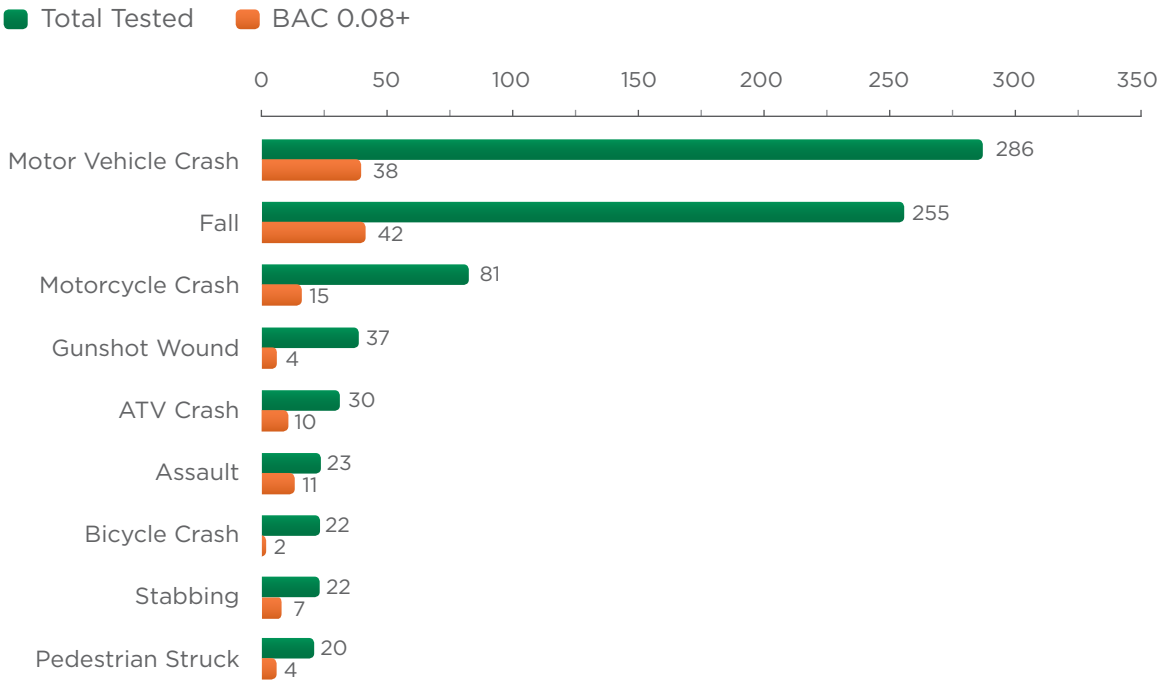
Parkview Trauma Centers periodically sponsor free seminars to help equip young drivers and their parents with the tools needed to become more focused, safer drivers. Safe driving content including Don't Text & Drive and distracted driving are also featured on Facebook. Powerful testimonials from people who have lost loved ones to distracted driving crashes have been shared with the public, prompting frank conversation. Laws governing distracted driving and current statistics are also shared, demonstrating the dangerous nature of distracted driving. A driving simulator, provided by Drive Alive, is often featured at community events to allow participants firsthand, virtual experience of how distracted driving accidents occur.

Share the Road

Parkview Trauma Centers implemented the Share the Road campaign to help protect and prevent traumatic injuries within our communities. With increased trails and traffic on the roads, motorists, cyclists, runners and buggy drivers need to be alert and aware of the variety of commuters. Parkview works closely with the City of Fort Wayne, Fort Wayne Trails, Fort Wayne Police Department, Fort Wayne Outfitters & Bike Depot, schools and numerous business and community organizations to spread the message. Public outreach includes public service announcements and billboards designed with runners, motorcyclists, cyclists and Amish buggies in mind. In 2018, Parkview Trauma Centers took the Share the Road campaign to more than 75 events throughout Allen County and the surrounding communities. The Share the Road vehicle, donated by Evans Toyota, is utilized as a chase car for cycling events organized by the city and various charities. ■

Blood Alcohol Concentration (BAC) Level in Selected Mechanisms for Injured Patients

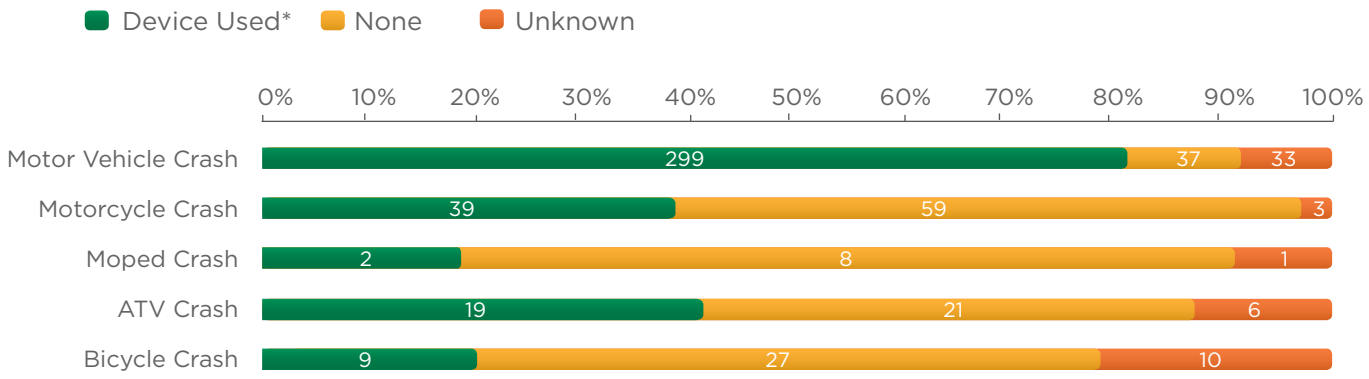
2017



Note: BAC equal to or greater than 0.08 level is considered legally intoxicated.

Protective Devices Used in Selected Crash Types, All Injuries

2017



*Multiple devices used in a single vehicle crash are counted as one.

PREVENTION *continued*

Trauma Prevention Education Programs

Program	Public Awareness[1]	Attendance at Presentation[2]	Program Display[3]	Total
Share the Road	23,703	214	3,787	27,704
Don't Text & Drive*	41,075	546	3,538	45,159
Other (Stop the Bleed, gun safety, falls, Don't Drink & Drive)	5,101	869	100,228	106,198
Total	69,879	1,629	107,553	**179,061**

1. Social media, outreach, distribution of merchandise
2. Attended an event facilitated by Parkview Trauma Services
3. Booths at local symposiums, presence at community events

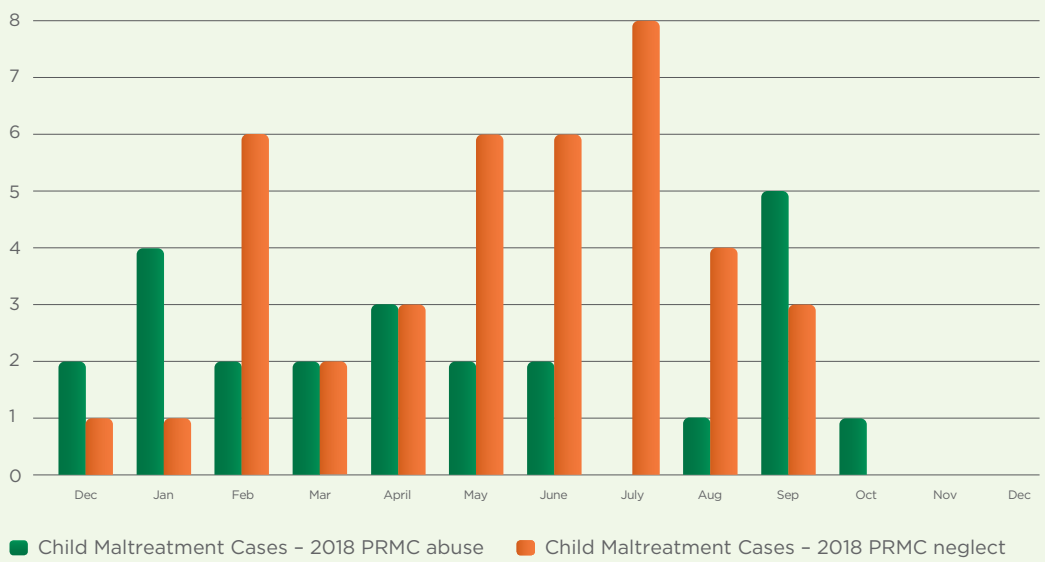
*Billboards for Don't Text & Drive have been strategically placed throughout Northeast Indiana.

CHILD MALTREATMENT

In 2018, a goal of pediatric trauma care has been the identification, treatment and prevention of child maltreatment across the health system. The child maltreatment team has been reorganized to include physicians, nurses, social workers, chaplaincy, leadership, community nursing and radiology. The entire team meets monthly to discuss the current statistics within Allen County and the neighboring communities. Reporting of child maltreatment is monitored and shared with the local community and state level.

The Parkview community nursing program notes trends in the patterns of injury and alters their education or teaching strategies accordingly. Trauma Services facilitates a free, yearly child maltreatment symposium, in coordination with the Isaac Campbell Kidd Fund, that is open to members of the community. By creating a system-based approach, the child maltreatment team and trauma services are able to share resources and collaborate in difficult situations to ensure the safety of the children Parkview cares for. As a result, Parkview has noted increased reporting and ability to respond to concerns for abuse and neglect with local authorities and child protective services.

Suspected Child Maltreatment Cases – 2018



COMMUNITY HOSPITAL TRAUMA PROGRAM

Parkview Trauma Centers at Parkview Regional Medical Center have developed an inclusive trauma system in coordination with all Parkview Community Hospitals. Parkview's community hospitals provide primary access for injured patients within northeast Indiana. The Parkview community hospitals span across the District 3 region including Allen, Huntington, LaGrange, Noble, Wabash and Whitley counties. Parkview's newest addition in 2016 is within Kosciusko County, District 2: Parkview Warsaw. The Parkview Community Trauma Program provides hospital-specific trauma data to each facility's clinical care committee and patient care committees. Trauma simulations and the Rural Trauma Team Development Course (RTTDC) are a part of trauma education provided to the Parkview community hospitals.

The American College of Surgeons (ACS) *Optimal Resources for the Injured Patient* describes a standardized approach which Parkview community hospitals embrace and apply to all injured patients. The multidisciplinary approach rapidly identifies injuries and triages patients in a timely manner. Utilizing community resources and keeping patients close to home is a priority. However, when a patient's injuries surpass the resources at the local community hospital, expedient transfer to a verified trauma center may be necessary. ■

Parkview community hospital facilities include:

Parkview Randallia Hospital

Parkview Huntington Hospital

Parkview Warsaw

Parkview LaGrange Hospital

Parkview Noble Hospital

Parkview Wabash Hospital

Parkview Whitley Hospital

Jennifer Konger, BSN, RN, *Manager, Community Hospital Trauma Program*

OUTREACH AND EDUCATION

Parkview provides educational opportunities featuring industry experts. Presentations are customized to the audience, with the objective of improving the care of injured victims. Since 1989, Parkview Trauma Centers have provided trauma-related education to area physicians, nurses, prehospital providers and other allied health providers.

The learning events have been held at organizations in 30 counties across northeast Indiana, northwest Ohio and south-central Michigan. Parkview Trauma Centers offer the trauma team-building Rural Trauma Team Development Course (RTTDC) to area community hospitals. The goal of this educational course is to equip clinical and emergency services personnel to provide quality trauma care in a rural setting.

Parkview Trauma Centers also offer the Advanced Trauma Care for Nurses (ATCN) course. This clinically rigorous course is offered annually in conjunction with the Advanced Trauma Life Support (ATLS) course for physicians.

Christopher Scheumann, BSN, RN, CCRN, CEN, CPEN, TCRN, CFRN, NREMT-P, *Trauma Outreach Coordinator, Trauma Services*

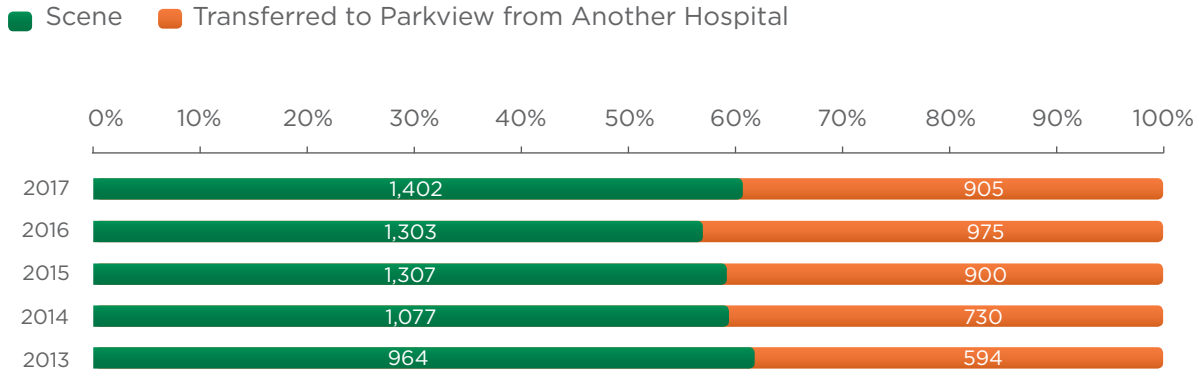
Other ongoing education programs include:

- Annual Prehospital Emergency Response Symposium
- Annual Trauma Symposium
- Annual Pediatric Trauma Symposium
- Annual Child Maltreatment Symposium
- Annual Geriatric Trauma Symposium
- Trauma Grand Rounds, live monthly education
- Monthly live trauma simulations, held in the trauma bay
- Prehospital skills workshops, offered monthly
- Trauma MD newsletters
- Trauma Outreach Online Education web page
- Monthly Trauma Case Study

Another source of feedback to providers outside of Parkview includes our follow-up outreach letters, which are sent to prehospital and community hospital personnel. The purpose of these letters is to assist in the continuum of care by identifying injuries, procedures, outcomes and opportunities for improvement. In 2017, over 900 letters were sent to providers. ■

Volume (and %) of All Patients from Scene or Transferred to Parkview Trauma Centers

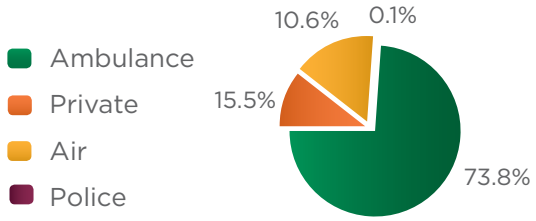
2013 – 2017*



* Excludes cases with isolated hip fractures from 2013 - 2014.

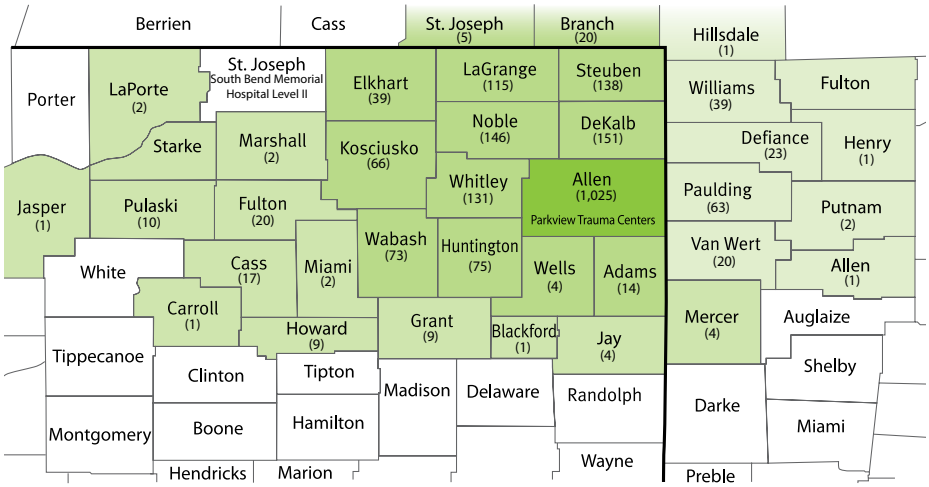
Mode of Transportation to Parkview Trauma Centers

2017



County of Injury Occurrence in Catchment Area

2017*



* Excludes 56 cases with unknown county and 17 cases out of state.

Parkview Health
10501 Corporate Drive
Fort Wayne, IN 46845

TRAUMA SERVICES TEAM

Raymond Cava, MD, FACS, Trauma Medical Director; Medical Director, Surgical Trauma ICU; Pediatric Trauma Medical Director and Pediatric ICU Co-medical Director, Parkview Regional Medical Center; Acute Care/Trauma Surgeon, PPG — Trauma & Acute Care Surgery

Marcy Rogers, MBA, RN, Vice President, Surgical and Ancillary Services, Parkview Regional Medical Center

Lisa Hollister, MSN, RN, Director, Trauma & Acute Care Surgery

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LeeAnn Booher, LPN, Nurse Extender

Ashley Brown, RN, Nurse Extender

Beth Burns, NP, Advanced Practice Provider

Melissa Crance, Trauma Administrative Assistant

Dawood Dalaly, DO, Trauma Surgeon, PPG

Elizabeth Daseler, NP, Advanced Practice Provider

Richard A. Falcone, Jr., MD, MPH, Pediatric Trauma Consultant, Parkview Pediatric Trauma Center; and Pediatric Trauma Medical Director, Cincinnati Children's Hospital Medical Center

Kellie Girardot, MSN, RN, Trauma Clinical Nurse Specialist

Megan Goetz, NP, Advanced Practice Provider

Taylor Hill, NP, Advanced Practice Provider

Thein Hlaing-Zhu, MBBS, DPTM, FRCP, FACE, Trauma Epidemiologist

Sarah Hoeppner, MSN, RN, CCRN, TCRN, Adult Trauma Coordinator and Trauma Performance Improvement Specialist

Janette Holub, MD, Trauma Surgeon, PPG

Danielle Kammer, RN, BSN, Nurse Extender

Jennifer Konger, RN, BSN, Manager, Community Hospital Trauma Program

Shanna Lemen, BSN, RN, CAISS, Trauma Program Nurse

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Dazar Opoku, BSC, MPH, Trauma Data Specialist

Dustin Petersen, MD, FACS, Trauma Surgeon, PPG

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Lauren Quandt, MSN, RN-BC, CEN, Injury Prevention and Pediatric Trauma Coordinator

Lindsay Riegle, MD, FACS, Trauma Surgeon, PPG

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Grant Tyler, NP, Advanced Practice Provider

Nicole Underwood, NP, Advanced Practice Provider

Samantha Vergara, RN, BSN, Nurse Extender

Emily Waldron, RN, Nurse Extender

Megan Weber, NP, Advanced Practice Provider

Jacqueline Yates-Feller, NREMT-P, PI, MBA, Community Hospital Trauma Coordinator

Brandy Young, NP, Advanced Practice Provider