



# PARKVIEW TRAUMA 2022

ANNUAL REPORT



 **PARKVIEW**  
ADULT TRAUMA CENTER

 **PARKVIEW**  
PEDIATRIC TRAUMA CENTER

# INTRODUCTION

**A long-time leader in the care of injured patients, Parkview remains dedicated to providing the highest level of trauma care in our region. Our Level II Adult and Level II Pediatric Trauma Centers provide 24/7, specialized care to the victims of trauma-related incidents.**

From trauma readiness training to continuous performance improvement, Parkview remains committed to keeping our community safe and improving outcomes throughout our region. In 2022, the trauma centers were challenged with caring for patients during a “parallel pandemic” of COVID-19 and increased volume of traumatic injuries. During this time, the nation experienced a significant increase in penetrating trauma cases, including firearm and stabbing-related injuries, thought to be associated with the socioeconomic stressors inflicted by the COVID-19 pandemic.

Although unexpected, this challenge was met by a trauma team that was ready to adapt, learn and continue to lead the way in providing outstanding trauma care. See below for a few recent achievements and highlights.

## HIGHLIGHTS

### **Child Maltreatment Program**

In an effort to help increase reporting and decrease incidents of child maltreatment in our region, the Child Maltreatment Program was developed. This initiative includes a 24/7 hotline to aid co-workers in reporting maltreatment, a clinic that acts as a designated space for follow-up with patients who demonstrate maltreatment concerns, and a Child Maltreatment Navigator who is responsible for assessing and planning the physical, psychological and social needs of children at risk for neglect and/or maltreatment

### **Gunlock Safety Initiative**

With children spending more time at home due to the pandemic, the number of unintentional firearm-related deaths in those 17 and under has only risen — making it more critical than ever for families to store their firearms securely. Parkview Health and the Fort Wayne Police Department partnered together to form the Gunlock Safety Initiative, which offers free gunlocks to area families. This proactive step ensures every person in our community is able to secure and store their firearms safely and responsibly.

### **Improving truncal hemorrhage outcomes with REBOA**

Parkview trauma team members are trained in using a life-saving device to optimize care for those experiencing truncal hemorrhage due to trauma. REBOA, a minimally invasive technique, uses a balloon catheter to help maintain blood flow to critical organs until the hemorrhage can be controlled via surgery. Compared with traditional resuscitative methods, REBOA significantly improves survival rates and complication incidences — giving patients a better chance at a positive outcome.

### **Record increase in trauma patients**

Since 2020, there has been a record number of injured patients seeking care at Parkview Trauma Centers. 2021 was no different, with a 10% increase from 2020. This record number of injuries and violence led us to seek other injury prevention strategies related to child maltreatment, gun violence, suicide, domestic violence and other preventable injuries. Through it all, Parkview remains focused on all aspects of trauma care and stands ready to respond.

# TABLE OF CONTENTS

2	INTRODUCTION / HIGHLIGHTS
4	TRAUMA AND ACUTE CARE SURGERY TEAM
5	CLINICAL DEFINITIONS / RATING SCALES
6	REGISTRY
12	PREVENTION
16	PREHOSPITAL
18	PEDIATRICS
22	GERIATRICS
25	MASS CASUALTY AND DISASTER PREPAREDNESS
26	TRAUMA PERFORMANCE IMPROVEMENT AND PATIENT SAFETY
27	COMMUNITY HOSPITAL TRAUMA PROGRAM
28	OUTREACH AND EDUCATION
30	TRAUMA RESEARCH
BACK PAGE	TRAUMA CENTER LEADERSHIP

# TRAUMA AND ACUTE CARE SURGERY TEAM



**William Beck, MD**



**Raymond Cava, MD, FACS**



**Janette Holub, MD**



**Joseph Muller, MD, FACS**



**Steven Santanello, DO**



**Dustin Petersen, MD, FACS**



**Lindsay Riegler, MD, FACS**

## PPG — Trauma & Acute Care Surgery Advanced Practice Providers

**Beth Burns, MSN, FNP-C, CCRN, TCRN, EMT-B**  
**Elizabeth Daseler, MSN, FNP-C**  
**Taylor Hill, MSN, FNP-C**  
**Julianne Hunter, MSN, FNP-C**  
**Danielle Kammer, MSN, FNP-C**  
**Amanda Macias, MSN, FNP-C**  
**Amy Pond, PA-C**  
**Grant Tyler, MSN, FNP-C**  
**E. Nicole Underwood, MSN, FNP-C**  
**Samantha Vergara, MSN, FNP-C**  
**Megan Weber, MSN, FNP-C**

## PPG — Trauma & Acute Care Surgery RNs

**Ashley Brown, BSN, RN**  
**Megan Drabenstot, BSN, RN**  
**Jacqueline Rumschlag, BSN, RN**  
**Felicia Treesh, BSN, RN**

## CLINICAL DEFINITIONS

### What qualifies as a trauma?

Trauma resulting in injury may be characterized by abnormal energy transfer involving mechanical energy (moving objects), thermal, electrical, chemical and radiation; the catastrophic injuries arising from automobile crashes are the result of transfer of energy between the victim and a stationary object (the ground) or a moving object (another vehicle).

## RATING SCALES

### Injury Severity Score (ISS)

ISS is an anatomical scoring system designed to provide an overall score for trauma patients with multiple injuries. The ISS 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 contents, extremities and external). ISS takes values from 0 to 75 and correlates with mortality, morbidity and hospital length of stay.

### Glasgow Coma Scale (GCS)

The GCS is a standard measure to quantify level of consciousness in head injury patients. It is composed of three parameters: best eye response (4), best verbal response (5) and best motor response (6). The lowest GCS total is a 3 and the best score is a 15.



*Left to right:*

**David Goertzen, MD**, Ortho NorthEast; and **Alicia Floor, DNP, RN**, Nursing Manager, Parkview Regional Medical Center

# 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 database is used to collect, organize and analyze information on the trauma patient population. This is essential to providing a trauma service in a healthcare system. Parkview's trauma registry began in 1991. Trauma program nurses with clinical knowledge and experience in EMS, Emergency and Intensive Care handle the data. Trauma rounds are done daily to ensure accurate and timely data collection.

Data collection is the foundation of the trauma program. The data provides essential information for analysis and evaluation of patient care. The trauma registry concurrently collects data and obtains necessary information to identify opportunities for improvement. This provides a mechanism for overall patient care and system evaluation.

The data has many applications but is primarily utilized to monitor the continuum of care, from injury prevention through outcomes measurement. Currently, the Parkview trauma registry manages data for more than 82,600 patients. Data points and the way these

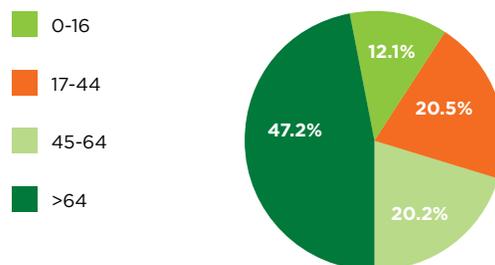
data are collected are regularly updated. Over 283 data points can be abstracted from a single patient's chart and entered into the database. Additionally, Parkview utilizes the Abbreviated Injury Scale (AIS) to classify and describe the severity of injuries of all trauma patients. AIS is an anatomical coding system that represents the threat to life associated with the injury and ensures coding uniformity. Using this system promotes considerable consistency and reliability of injury severity coding.

The Parkview trauma registry contributes clinical information daily to staff, quarterly to the Trauma Quality Improvement Program (TQIP) and Indiana Department of Health (IDOH), and yearly to the National Trauma Data Bank (NTDB). Contribution to larger databases allows Parkview to identify trends in quality measurement, shape public policy and benchmark at national, state and regional levels. Collectively, this facilitates Parkview's continued commitment of striving to improve performance standards.

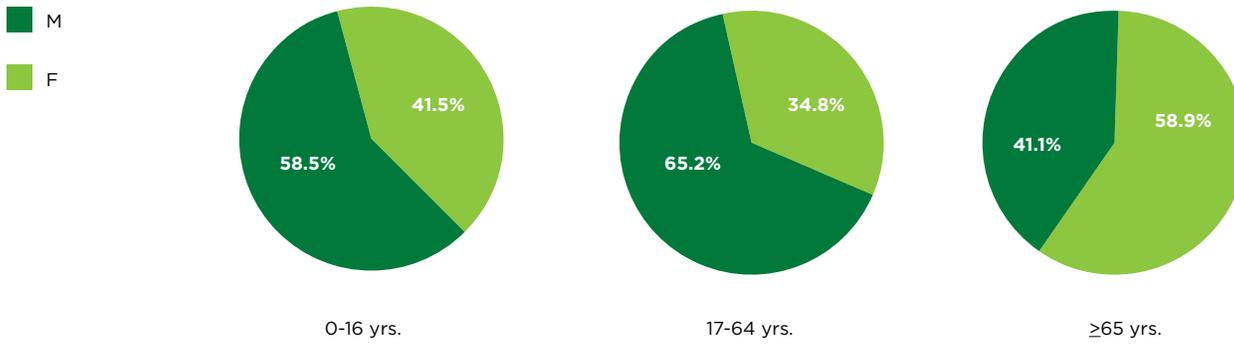


Left to right: **Becky Sickafoose, BSN, RN, CEN, CPEN, Trauma Program Nurse, Trauma Services;** and **Shanna Lemen, BSN, RN, CAISS, TCRN, Trauma Program Nurse, Trauma Services**

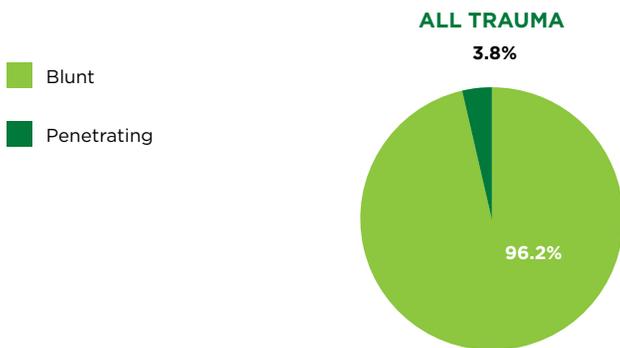
## Age of All Injured Patients, 2021



## Age and Sex, All Injured Patients, 2021



## Trauma Type, All Injured Patients, 2021\*



\* Excludes 13 cases with thermal trauma



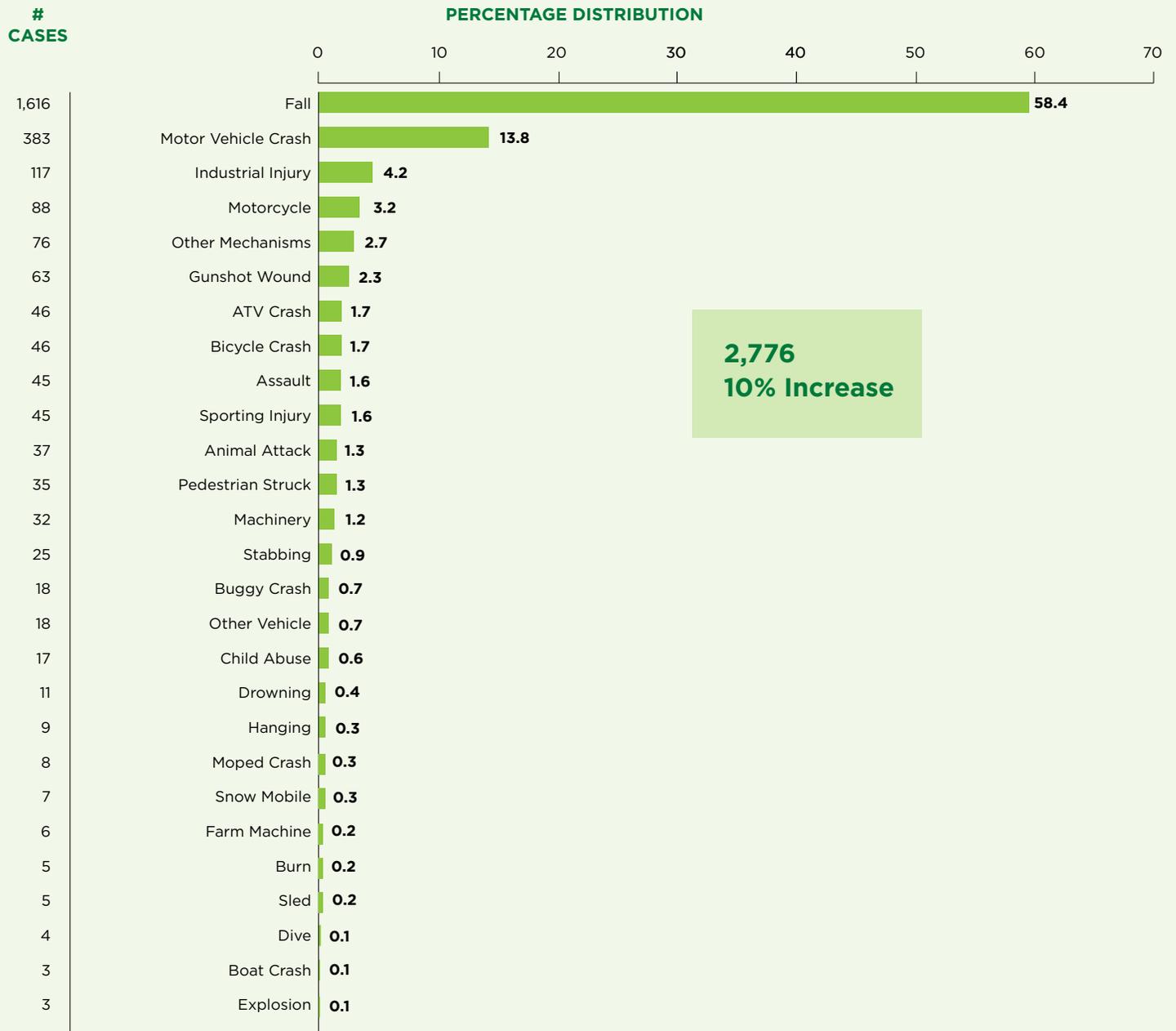
**Jessica Murphy**, Vice President, Surgical Services,  
Parkview Health



**Lisa Hollister, DNP, MSN, RN**, Director, Trauma,  
Acute Care Surgery and Injury Prevention

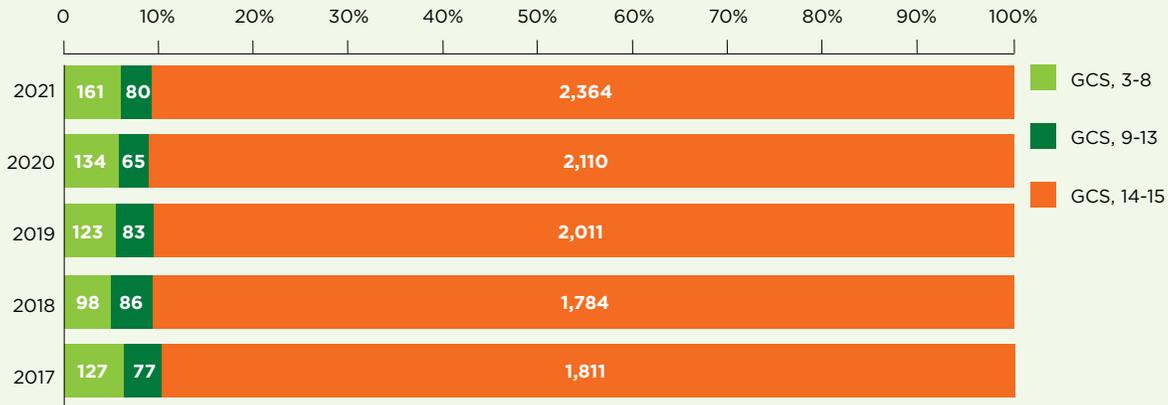
# REGISTRY *continued*

## Mechanism of Injury, All Ages, 2021



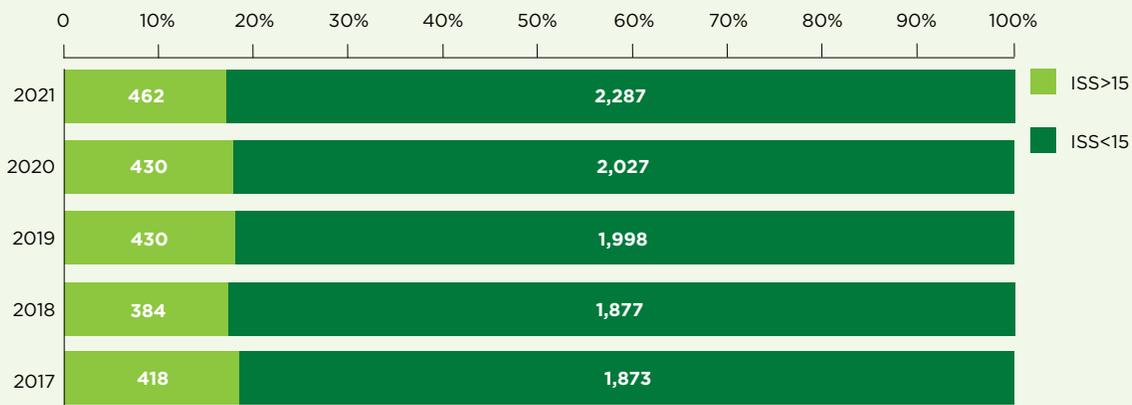
Note: 7 cases with unknown mechanism of injury

## Volume (and %) of All Patients Admission Glasgow Coma Score (GCS), 2017-2021\*



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

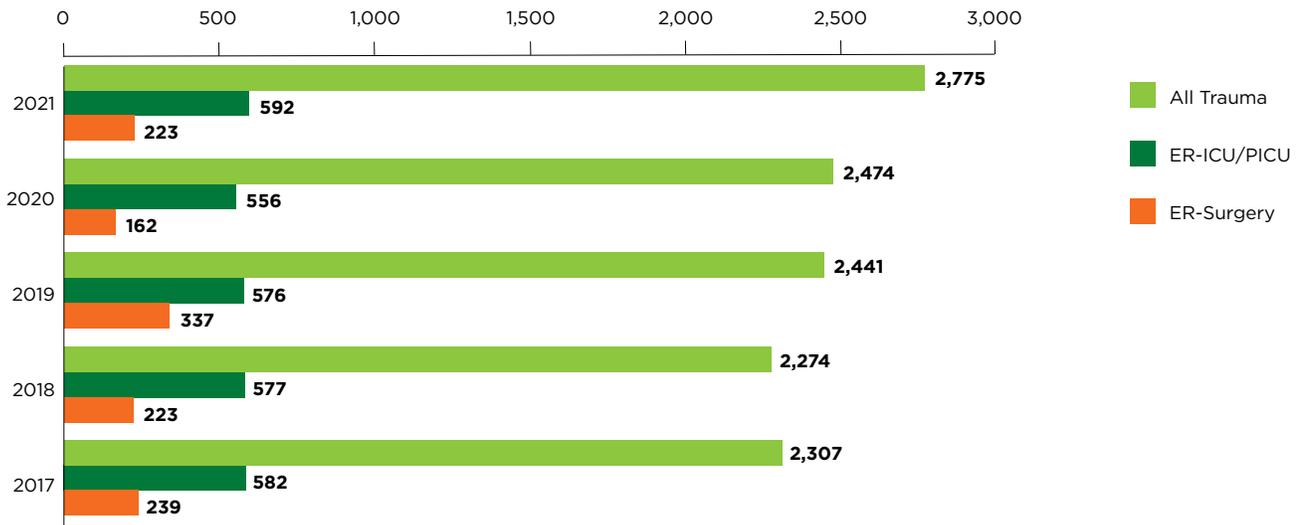
## Volume (and %) of All Ages Injury Severity Score (ISS), 2017-2021\*



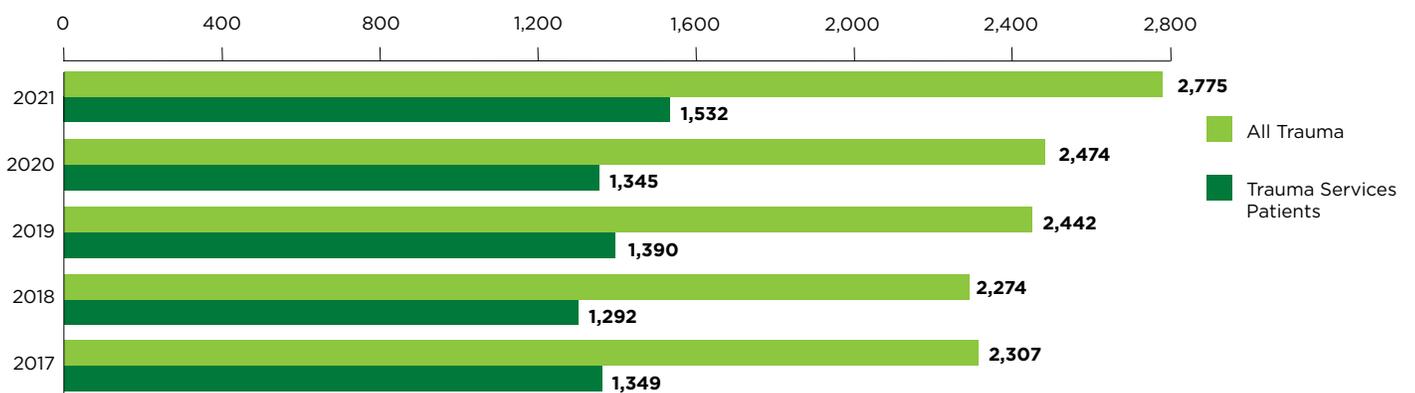
\* Excludes cases for which ISS is unknown  
 ISS > 15 can include life threatening, critical or fatal injuries

# REGISTRY *continued*

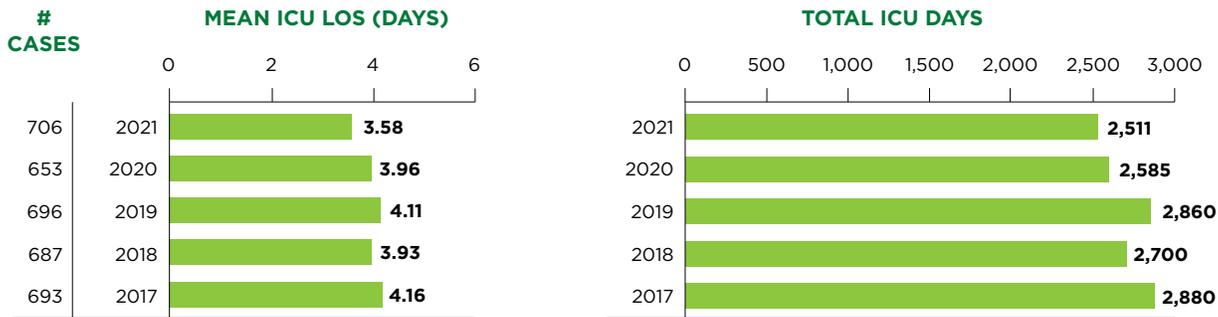
## Volume of All Ages Admitted from ER to ICU and OR, 2017-2021



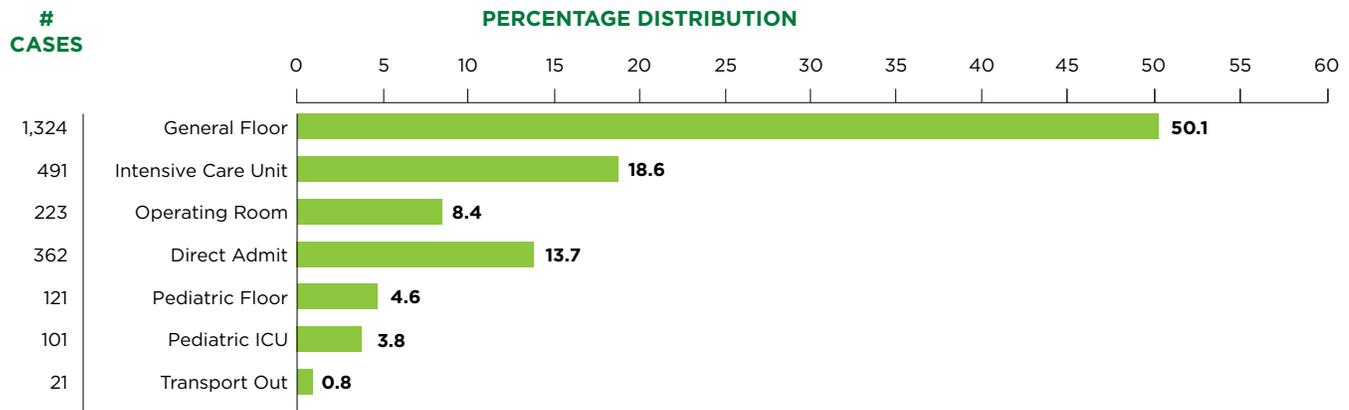
## Trend of Trauma Admission by Type, 2017-2021



## ICU Length of Stay (LOS), All Ages, 2017-2021



## ER Disposition, All Ages, 2021



# PREVENTION

**Parkview trauma prevention programs have been stable supporters of multiple communities in northeast Indiana, having reached nearly 200,000 people through social media, outreach, distribution of merchandise and events both hosted and attended by trauma prevention staff.**

## Stop the Bleed

Parkview Trauma Centers partners with the communities of Indiana and Ohio to provide Stop the Bleed training to accompany legislation that mandates the training of personnel and bleeding control equipment in every school. This education is provided at no charge. Many schools within Allen County have elected to train all of their staff in bleeding control techniques, and Parkview Trauma Centers coordinate and provide this training through EMS providers, nurses and advanced practice providers.

In addition to staff, elementary and high school students have the opportunity to engage in training that empowers them to take action in a life-threatening situation. Stop the Bleed is also offered free of cost to the community with open registration to multiple sessions throughout the year. Factory workers, construction workers and licensed safety personnel often take advantage of these sessions and the chance to interact with health professionals.

In 2022, the Healthcare Coalition provided \$50,000 to the trauma systems in northeast Indiana. This fund allowed Parkview Trauma Centers to create Stop the

Bleed kits and distribute them to schools that had received training. Ultimately, one complete Stop the Bleed kit was provided for nearly every 95 students in northeast Indiana.

## Don't Text & Drive

Parkview's Don't Text & Drive (DT&D) campaign has been raising awareness of the dangers of distracted driving for many years, long before national campaigns proliferated. Parkview Trauma Centers have been deeply involved in the program, which continues to mature year after year. The outreach program to the community helps save lives by raising public awareness. The Don't Text & Drive campaign was featured in events throughout Allen County and surrounding communities. Parkview continues to collaborate with Evans Toyota, Fort Wayne, to share the Don't Text & Drive and Share the Road campaigns.

## Share the Road

Parkview Trauma Centers implemented the growing Share the Road program to help protect and prevent road-related injuries within the community. With increased sharing of our roads, motorists and other travelers need to become more alert and aware of the variety of commuters. Parkview works closely with the City of Fort Wayne and surrounding communities to magnify the importance of sharing the road with pedestrians, bicyclists, motorcyclists and Amish buggy passengers.

Public outreach includes public service announcements and billboards designed with runners, motorcyclists, cyclists and Amish buggies in mind. Parkview Trauma Centers took the Share the Road campaign throughout Allen County and surrounding communities. The Share the Road vehicle was utilized as a chase car for several yearly cycle events organized by the city and various charities. If you see this vehicle on the road, watch for cyclists nearby!



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



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



**Sarah Hoepfner, MSN, RN, CCRN, TCRN,**  
*Supervisor, Trauma, Acute Care Surgery and Injury Prevention*

**SHARE**  
**← THE ROAD →**

 **PARKVIEW**  
TRAUMA CENTERS

# PREVENTION *continued*

## Bike Helmet Safety and Parkview Safety Store

The Parkview Safety Store, located at the Carew Medical Building, offers injury-prevention merchandise and safety supplies to enhance public safety. The store provides safety-certified bike helmets and helmet fittings to ensure the proper fit for each individual. More than 600 helmets were sold at the safety store in 2021, while nearly 250 helmets were provided at no cost to northeast Indiana citizens. Parkview Trauma Centers participates yearly in Bike to School Day for Fort Wayne Community Schools and oversees the Kickstart program, which includes a month of activities during bicycle safety month every May. Nurses from Parkview Trauma Centers provide safety education in conjunction with the Fort Wayne Police, and students are given free helmets to keep after the ride to school.

Apparel and other items supporting Parkview’s Don’t Text & Drive and Share the Road campaigns are available for purchase at the Parkview Safety Store.

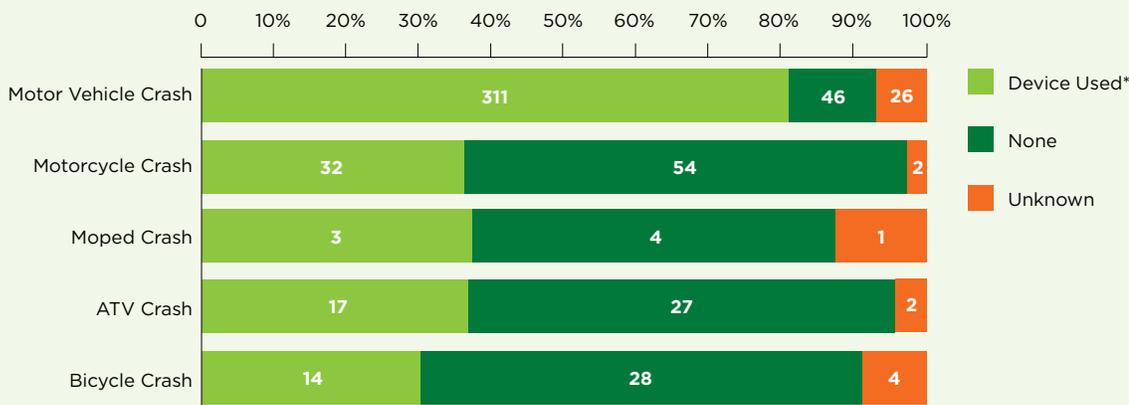
**Parkview Safety Store**  
**Open Tuesdays, 10 a.m. – 1 p.m. and 4 – 7 p.m.**  
**(260) 373-7201**  
**1818 Carew Street, Suite 140**  
**Fort Wayne, IN 46805**

## Bus Safety

Parkview partnered with local public school systems for a school bus safety initiative that included an awareness campaign for automobile drivers to stop when necessary for school bus stop signs. The awareness campaign included law enforcement initiatives, billboards, awareness video with television campaigns, yard signs and more.

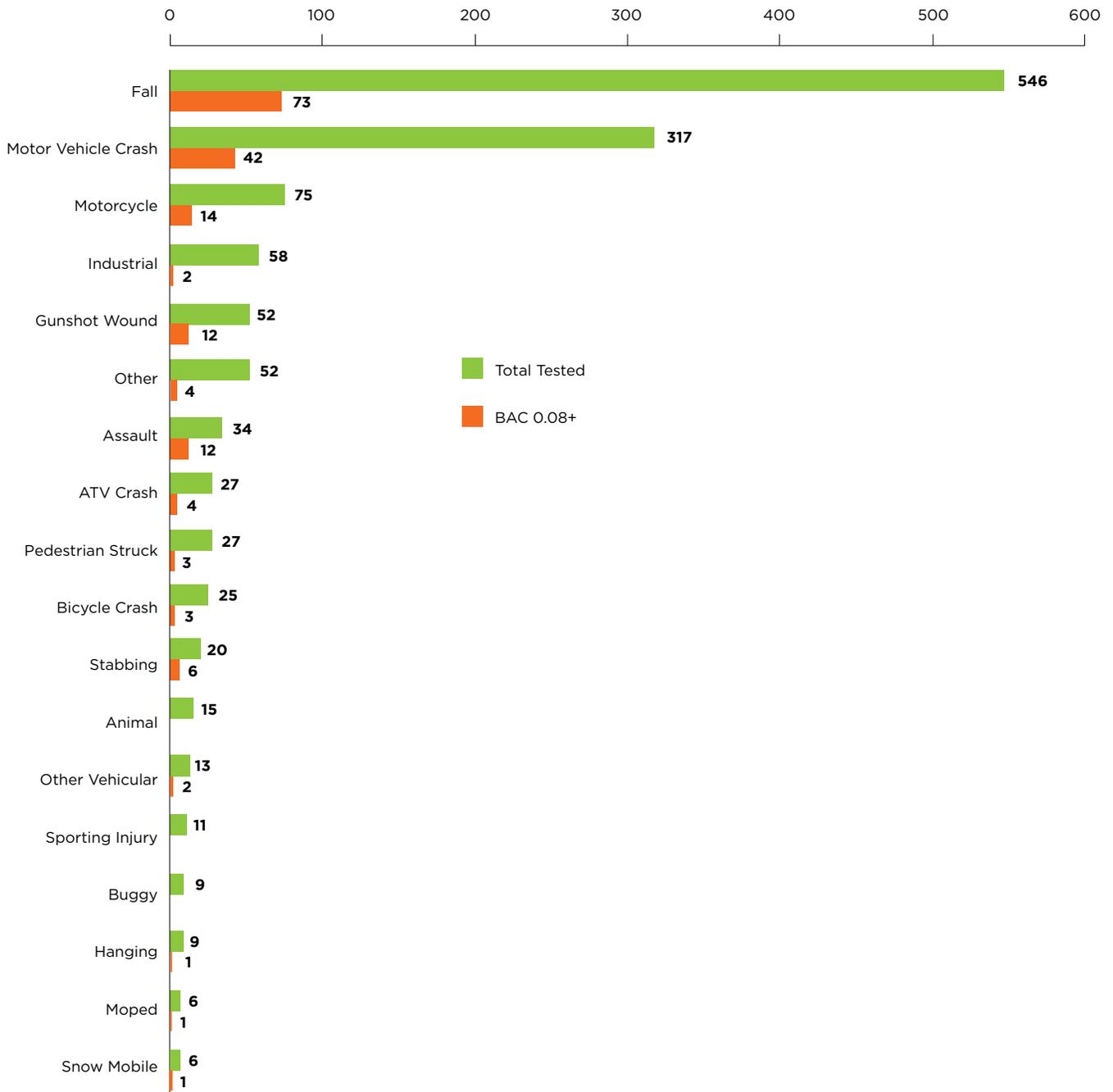


## Protective Devices Used in Selected Crash Types, All Injuries, 2021



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

## Blood Alcohol Concentration (BAC) Level in Selected Mechanisms for Injured Patients, 2021



# PREHOSPITAL

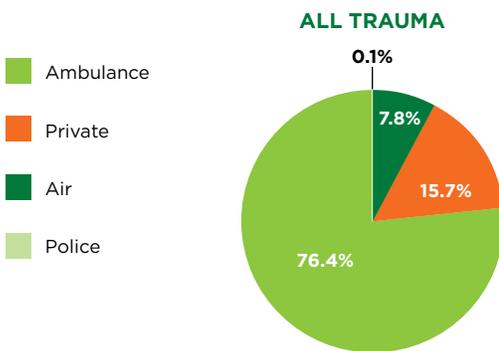
When an injury occurs requiring emergency medical care, the community often calls 9-1-1, and highly trained prehospital providers respond. Bystanders' reactions and rapid responses to the scene can greatly impact the chances of patient survival and overall outcome. Prehospital providers include emergency dispatchers, police, fire department, emergency medical responders (EMR), basic emergency medical technicians (EMT), advanced emergency medical technicians (AEMT) and emergency medical technician paramedics (EMTP). These providers possess various skill levels and can make the difference between life and death. Examples of skills the prehospital team provides include pre-arrival bystander instructions, scene safety and securement, first aid, basic life support, advanced life support and transportation.

In addition to emergency medical providers, community paramedic programs, also known as mobile integrated healthcare (MIH), serve the northeast Indiana community with various initiatives. MIH programs connect individuals accessing the EMS system to the most appropriate

healthcare providers and social services. This includes linking the frequent and lower acuity caller with an appropriate level of service, improving integration with behavioral health and referring individuals to community-based services and other activities. MIH programs assist trauma care services by providing initiatives such as fall, suicide and abuse prevention programs.

Prehospital providers are an integral part of the trauma team. The regional prehospital providers of northeast Indiana, northwest Ohio and southern Michigan are offered and receive trauma education in person and virtually by the Parkview Trauma Services education team. In addition, trauma education is offered and provided to bystanders who play a vital role in patient outcomes through early recognition of emergency treatment prior to formally trained emergency prehospital staff. Without this team of caring, compassionate and highly skilled people, individuals experiencing traumatic injuries would likely suffer worse outcomes.

## Mode of Transportation to Parkview Trauma Centers, 2021





# PEDIATRICS

As a pediatric trauma center, Parkview maintains dedicated resources for the care of injured children. Children experience trauma differently than adults, requiring a unique response from a team of specialists including neurosurgery, orthopedic surgery, emergency medicine and pediatric critical care physicians. Parkview Regional Medical Center, a verified pediatric trauma center by the American College of Surgeons since 2003 and the first pediatric trauma center in Indiana outside of Indianapolis, is dedicated to achieving the best outcomes through its commitment to data collection, injury prevention, outreach, performance improvement, professional trauma education and research.

## Child Maltreatment

Throughout 2021, the Parkview Pediatric Trauma Center has continued to focus on the identification, treatment and prevention of child maltreatment across our region. Our child maltreatment team includes physicians, nurses, social workers, chaplaincy, leadership, community nursing and radiology members. The team meets monthly to discuss current statistics within Allen County and the region. Multiple avenues of research and community engagement have been explored throughout the year, including a study with Purdue University regarding the effects of opioid use prenatally through the first three years of life, and a collaboration with the Allen County Department of Child Services and Parkview Physicians Group pediatricians to aid in the proper identification of and documentation for litigation of abuse and neglect against children.

Data is also shared with the Parkview community hospitals that refer patients to Parkview Regional Medical Center for assessment and treatment. Parkview community nursing continues to trend the patterns of injury and alters their education or teaching strategies accordingly. Community nursing is also available to help patients and families that may be facing an acute crisis, which could lead to abuse or neglect, by offering resources and meeting with families identified to be in distress.

Finally, the Bright Futures Clinic was opened in the office of Dr. GiaQuinta of Parkview Physicians Group — Pediatrics. The clinic created a designated space for

follow-up with patients who demonstrate maltreatment concerns. Physicians throughout the network can refer families to the clinic from multiple avenues including the ER as well as in-patient and out-patient offices. Children and families receive a comprehensive physical and social assessment and also meet with a social worker from SCAN to identify all appropriate community resources they could benefit from. Staff from the clinic follow-up with DCS and law enforcement regarding any concerns.

With the rise in identification, staff throughout the Parkview system were experiencing increasingly complex social and legal situations regarding the maltreatment of children. In response, a 24-hour helpline was created. The helpline allows staff from all specialties to obtain guidance in reporting maltreatment and appropriate referrals to either in-patient or community resources. A member of trauma services is responsible for staffing the helpline, which can be reached at (260) 266-HELP (4357).

By producing a system-based approach, the child maltreatment and trauma services teams share resources and collaborate in difficult situations to ensure the safety of the children under Parkview's care. As a result, Parkview has increased the reporting of potential child maltreatment by responding to concerns about abuse and neglect internally at all Parkview hospitals as well as through local authorities and child protective services.

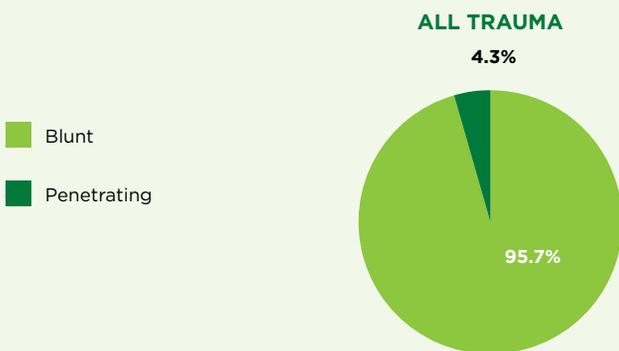
## Pediatric Trauma Education

The Parkview Pediatric Trauma Center continues to support both staff and community members throughout the state of Indiana by providing education related to pediatric trauma topics free of charge. Parkview hosts the annual Child Maltreatment Symposium, sponsored by the Isaac Campbell Kidd Fund, in an ongoing effort to protect Hoosier children from abuse and neglect. Health professionals, teachers, social workers and other community members have the opportunity to network with each other and learn about various topics, including but not limited to:

- Mandatory reporting
- Human trafficking
- COVID-19 and return to school
- Adverse childhood events
- Effects of the opioid epidemic on families
- A yearly review of abuse and neglect statistics for northeast Indiana
- Healthier Moms and Babies success stories
- Collaborative sessions with the Indiana Department of Child Services leadership
- Implementation of the Child Maltreatment Clinic

The Parkview Pediatric Trauma Center provides an

## Trauma Type, Pediatric Patients, 2021\*



\* Excludes 3 cases with thermal trauma

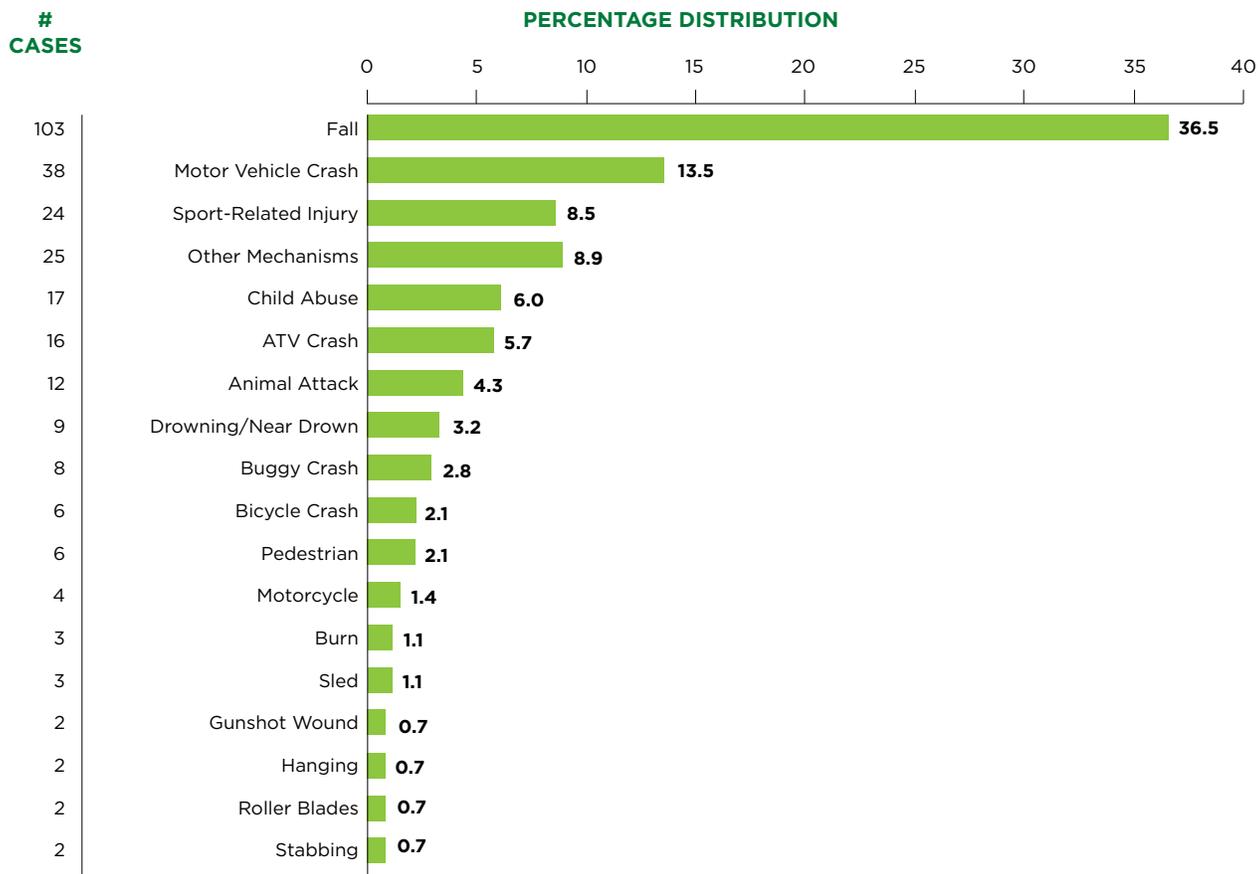
annual Pediatric Trauma Symposium where nurses, physicians, pharmacy, leadership, students and prehospital providers engage in a variety of pediatric-related topics that have been identified while caring for children throughout the system. Education has included:

- Orthopedic injuries related to improper restraint
- Management of pediatric blunt abdominal trauma
- Violent crimes against children
- Complex pediatric case studies
- Suicide awareness and prevention
- Process improvement for massive transfusion
- Analgesia and sedation
- Management of complex facial fractures

In addition to symposiums, the pediatric trauma center has established a pediatric trauma simulation program that allows staff from the emergency department, lab, radiology, surgery, chaplaincy, social work, trauma services, pediatric critical care, pediatric intensive care unit and anesthesia to simulate care for our highest-level pediatric trauma patients. An emphasis on closed loop communication, identification and treatment of life-threatening injuries, and massive transfusion has allowed staff to demonstrate teamwork and improve patient outcomes. The trauma team also works in collaboration with Cincinnati Children's Hospital and their medical director, Dr. Richard Falcone, to experience and learn pediatric trauma care from regional partners.

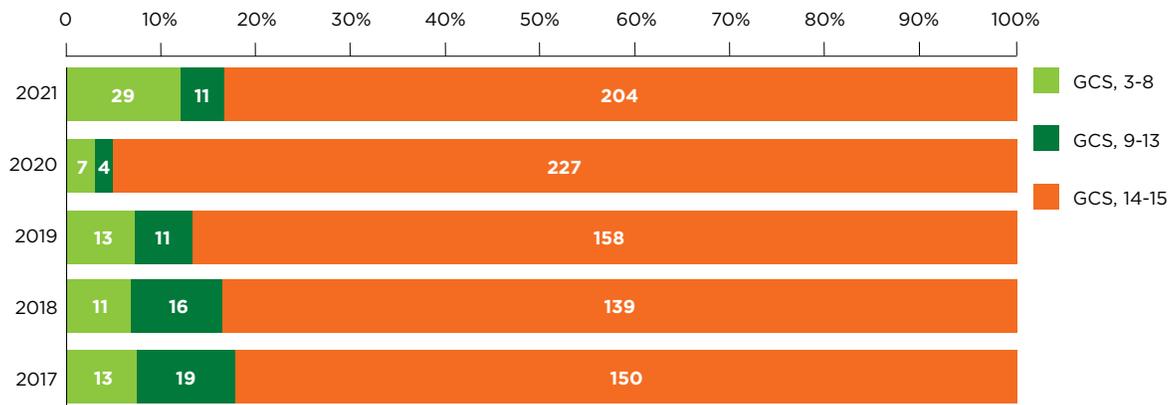
# PEDIATRICS *continued*

## Mechanism of Injury, Pediatric Patients (Ages 0-14), 2021



Note: 1 case with unknown mechanism of injury

## Volume (and %) of Pediatric Patients (Ages 0-14) Admission Glasgow Coma Score (GCS), 2017-2021\*



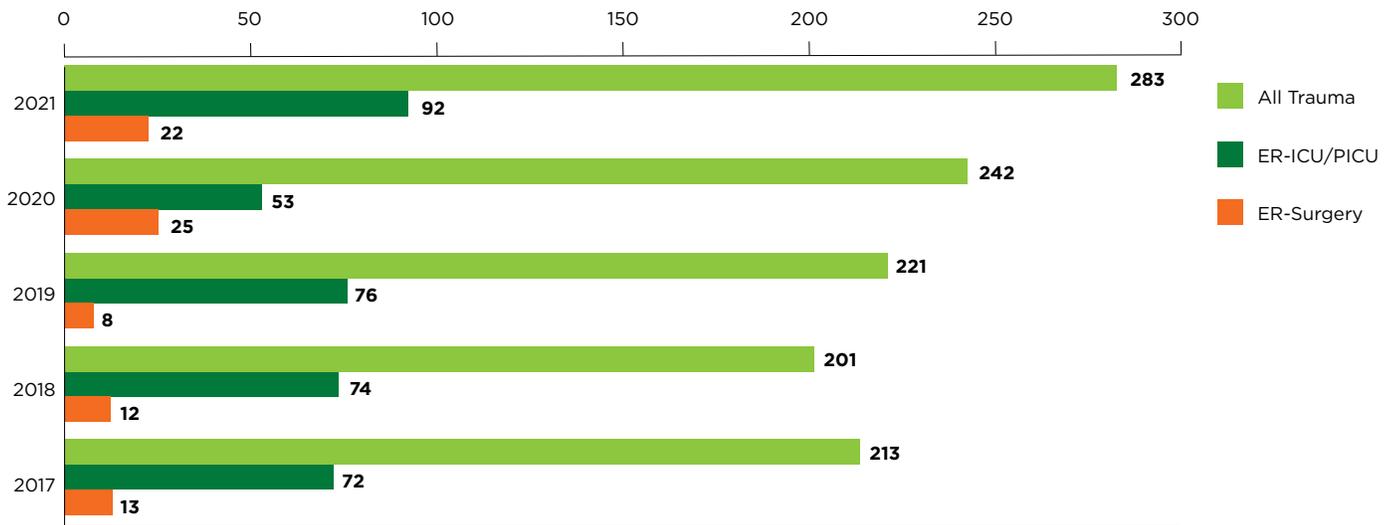
\* Excludes cases for which GCS is unknown  
 GCS, 3-8 = Possible severe head injury; GCS, 9-13 = Possible moderate head injury;  
 GCS, 14-15 = Possible mild head injury

## Volume (and %) of Pediatric Patients (Ages 0-14) Injury Severity Score (ISS), 2017-2021\*

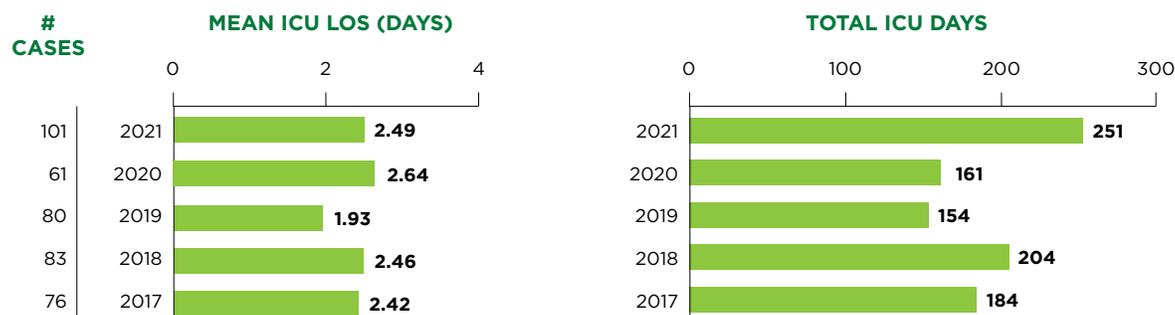


\* Excludes cases for which ISS is unknown  
ISS > 15 can include life threatening, critical or fatal injuries

## Volume of Pediatric Patients (Ages 0-14) Admitted from ER to ICU and OR, 2017-2021



## ICU Length of Stay (LOS), Pediatric Trauma (Ages 0-14), 2017-2021



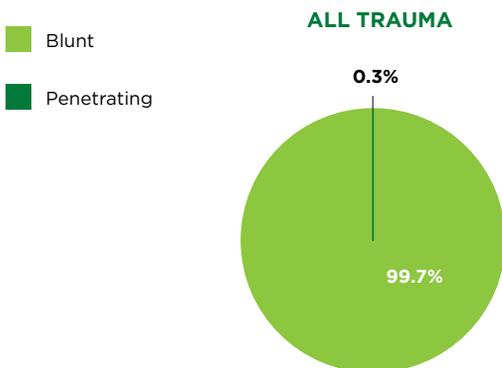
# GERIATRICS

Each year, it becomes more evident that specialized care in the older adult population is necessary. That's why Parkview Trauma Services has streamlined separate patient care guidelines specific to persons aged 65 and older. Because the older adult may experience a different physiological response in the presence of trauma compared to adults less than 65 years of age, the differentiation of baseline vital signs, comorbidities and medications based on age should be considered.

Parkview Trauma Services has reviewed the American College of Surgeons (ACS) Trauma Quality Improvement Guidelines (TQIP) for Geriatric Trauma Management and completed a gap analysis to determine how to improve care in the older adult. The team has looked to improve the screening of older adults to allow for targeted intervention and to improve in the streamlining of discussing goals of care. The trauma registry, where clinical patient-based information is tracked, shows that falls remain

the number one mechanism of traumatic injury in older adults. That's why Parkview continues to focus on prevention of falls. The trauma program has been trained in the Matter of Balance program for older adults to remove the fear of falling. Parkview offers a Falls Clinic where the patient receives one-on-one consultation and evaluation as well as in-home assessments. At the end of the process, the patient receives an individualized care plan and recommendations to aid in the prevention of falls.

## Trauma Type, Geriatric Patients (Ages ≥ 65), 2021\*

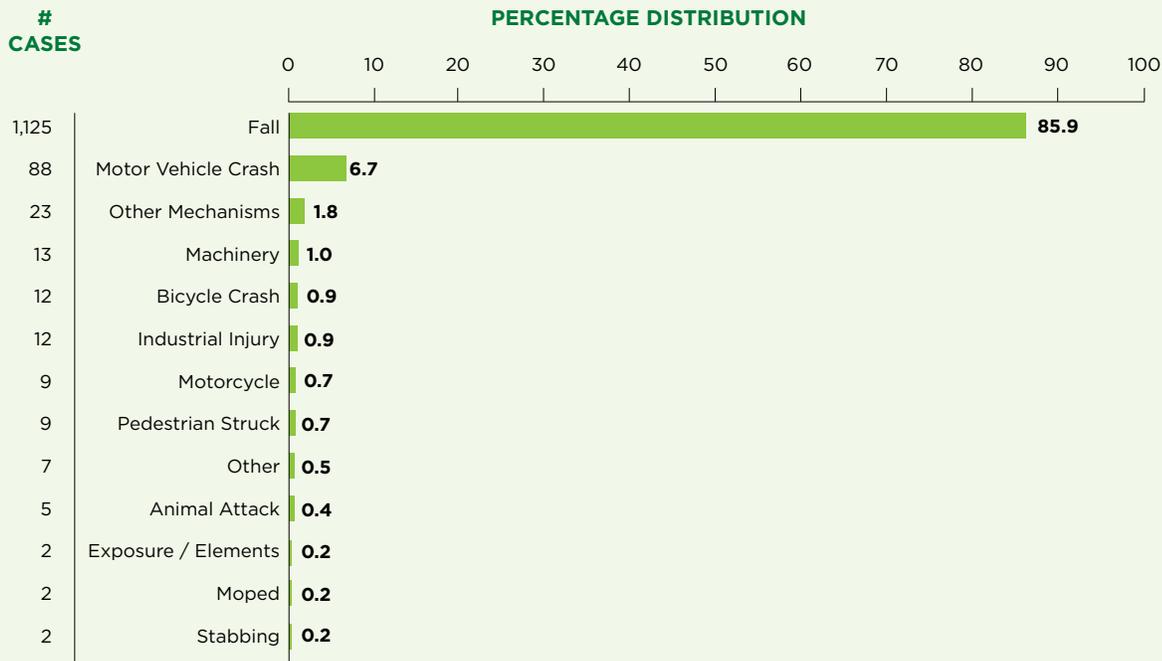


\* Excludes 4 cases with thermal trauma



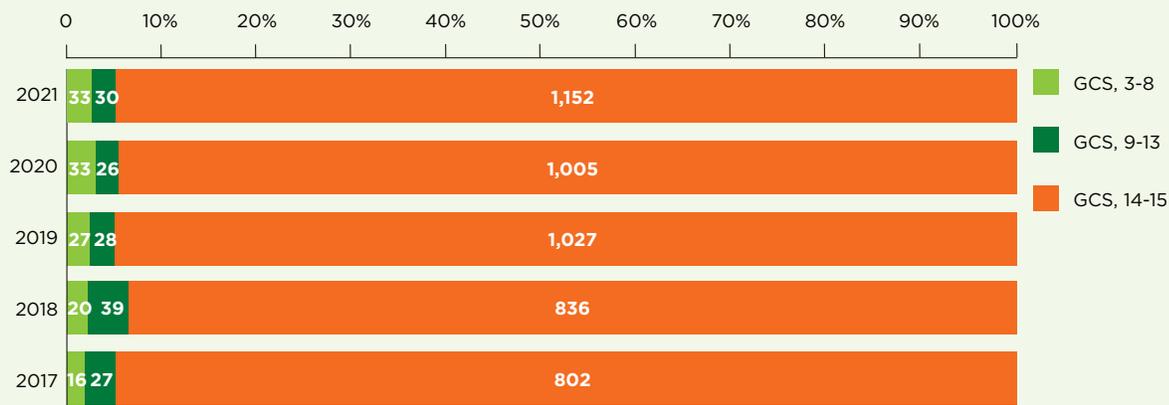
Chris Scheumann, BSN, RN, CCRN, CEN, NREMT-P, PI,  
Trauma Outreach Coordinator, Parkview Hospital

## Mechanism of Injury, Geriatric Patients (Ages ≥ 65), 2021



Note: 1 case with unknown mechanism of injury

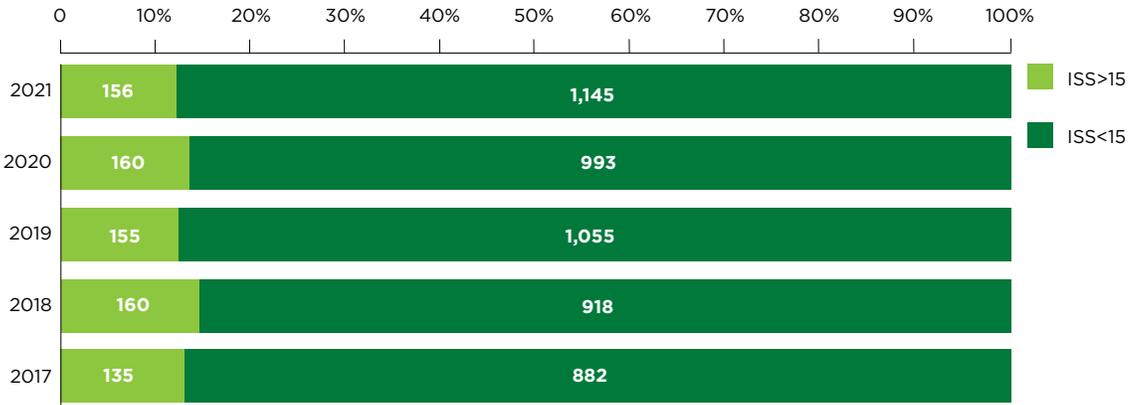
## Volume (and %) of Geriatric Patients (Ages ≥ 65) Admission Glasgow Coma Score (GCS), 2017-2021\*



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

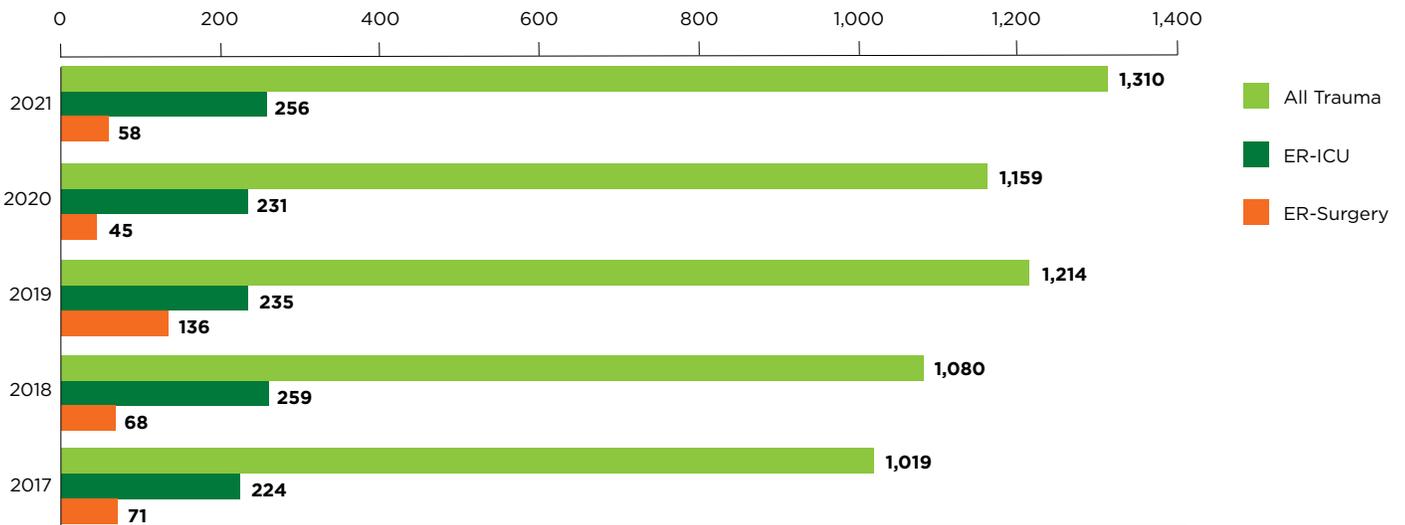
# GERIATRICS *continued*

## Volume (and %) of Geriatric Patients (Ages ≥ 65) Injury Severity Score (ISS), 2017-2021\*

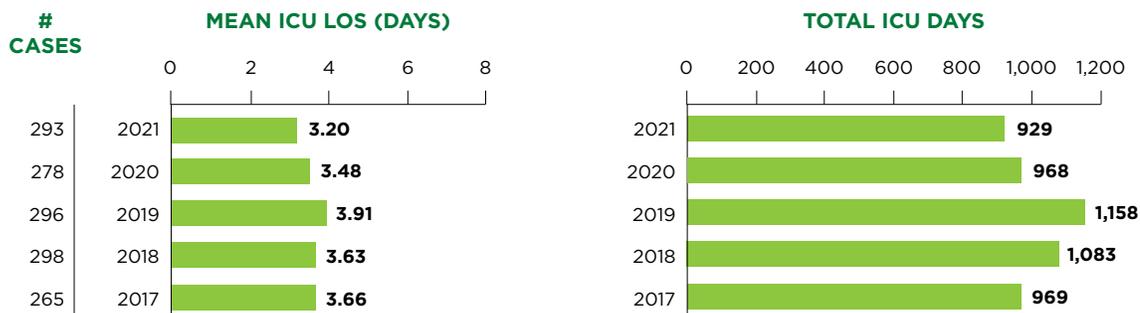


\* Excludes cases for which ISS is unknown  
ISS > 15 can include life threatening, critical or fatal injuries

## Volume of Geriatric Patients (Ages ≥ 65) Admitted from ER to ICU or Surgery, 2017-2021



## ICU Length of Stay (LOS), Geriatric Trauma (Ages ≥ 65), 2017-2021



# MASS CASUALTY AND DISASTER PREPAREDNESS

2021 was a year of uncertainty with the parallel pandemics of COVID-19 and injury. At Parkview, we learned to always be prepared for the unthinkable with mass casualty incident (MCI) plans in place and regular preparation exercises (see Trauma Research section for a recently published study). A MCI may result from multiple situations, such as a tornado, mass shooting, car crash, etc.

Parkview Trauma Centers have a Mass Casualty Committee (MCI) that applies best practice in mass casualty preparedness and trauma care. The committee is a multidisciplinary team that brings different areas of expertise to the table. An MCI requires a system response at a moment's notice or no notice. The systematic process is drilled and evaluated in order to hardwire our plans, as well as discover opportunities to consistently improve.

The fear of a mass casualty event taxing a hospital's ability to provide care to all patients is the driving force for incident planning and drilling. It is the "insurance policy" for if or when it happens. Along with caring for injured victims, there may be an influx of media, volunteers, walking wounded and concerned family members. The Mass Casualty Committee predetermines locations for these individuals to prevent unnecessary crowding and allow the patients to be treated efficiently.

Resources and supplies are critical components in mass casualty planning. Pre-stocked disaster carts

are ready at a moment's notice. Each cart is equipped with abundant supplies appropriate for any type of mass casualty victim and delivered to the pre-planned hospital locations. This system allows rapid treatment to all mass casualty victims.

Along with MCI planning, Parkview Trauma Centers provide community education on the national Stop the Bleed program. Stop the Bleed provides knowledge on how to recognize life-threatening bleeding and intervene effectively. We teach when and how to apply direct pressure to a wound, wound packing and the application of a tourniquet. Safety kits with supplies are available at the Parkview Safety Store.

Parkview collaborates with multiple outside organizations, the health department and the district Health Care Coalition to prepare our regional MCI response. When disaster strikes, we believe all hands should be on deck. As a leader in trauma care in our region, Parkview Trauma Centers provide an example for our community in times of uncertainty.



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



**Kellie Girardot, MSN, RN,  
Trauma Clinical Nurse Specialist**

# TRAUMA PERFORMANCE IMPROVEMENT AND PATIENT SAFETY



The Parkview Adult and Pediatric Trauma Centers are dedicated to Trauma Performance Improvement and Patient Safety (TPIPS) through a multidisciplinary, multi-tiered, collaborative approach to identifying potential opportunities for improvement within the care delivery system in real-time and utilizing the appropriate resources to promote a just culture and high reliability. The TPIPS process drives positive change and system learning with data registry management, process improvement, education and outreach, and research and development.

During Parkview Trauma Centers' reverification by the American College of Surgeons in 2022, our TPIPS process received a "strength" as a well-established and robust program. Obtaining this high mark of achievement demonstrates a culture of safety by providing a systematic, coordinated and continuous

approach to optimizing injured patient outcomes and patient safety. Recent performance improvement projects were aimed at our blood transfusion delivery process, REBOA program implementation, in-situ trauma simulation and child maltreatment prevention, to name a few.

Parkview Trauma Centers submit data for benchmarking on multiple levels including local, regional, state and national. Parkview has been a proud participant of the Trauma Quality Improvement Program (TQIP) since its inception and was among the first group of trauma centers across the nation to benchmark data through TQIP. Recently, we were honored to be recognized as a TQIP high performer and selected as a TQIP mentor for new TQIP trauma programs.

# COMMUNITY HOSPITAL TRAUMA PROGRAM

Parkview Health has established a regional trauma care system among all Parkview Health hospitals. Each hospital has a trauma program with similar trauma care standards based upon resources, data registry management, education and outreach, and research and development for uniformity. This allows the Parkview community hospitals (Randallia, Noble, Huntington, Whitley, LaGrange, Wabash, Warsaw ED, and DeKalb) to benchmark data for standardization and continuous quality improvement initiatives.

Parkview's trauma system is growing with a new emergency department coming soon on Illinois Road in Fort Wayne. This is just one way Parkview community

hospitals continue to strengthen their trauma care skills and strive to provide quality, accessible care to every trauma patient every day.



# OUTREACH AND EDUCATION

**Trauma outreach involves providing trauma center expertise, information and leadership to institutions, agencies and individuals within a region for the purpose of improving the care of injured patients.**

The goals of the trauma outreach program include:

- Improving regional outcomes of injury by the dissemination of knowledge and expertise regarding the care of injured patients.
- Participating with regional agencies, organizations and providers in improving the regional trauma care system.
- Facilitating access to trauma center resources, such as educational and/or prevention programs, performance improvement, consultation and referrals.
- Supporting educational programs of regional facilities and trauma healthcare personnel.

## **Advanced Trauma Life Support (ATLS) for Physicians and Physician Extenders**

This course is a trauma team-teaching, interactive learning experience designed for physicians and advanced practice providers who care for injured patients. The course provides the learner with trauma common knowledge and an organized, systemic team approach for the evaluation and management of the seriously injured by using scenario-based interactive learning. In addition, emergent lifesaving surgical skills are acquired through a five-step training method using high-fidelity simulation mannequins.

## **Advanced Trauma Care for Nurses (ATCN)**

ATCN was developed to teach established standards of trauma care and practical, life saving skills. ATCN is an advanced course designed for the registered nurse interested in increasing his/her knowledge in management of the multiple-trauma patient. The ATCN course is most often taught concurrently with the ATLS course but is also offered as a hybrid course where students complete all of the ATLS modules prior to completing the hands-on skills portion of the course. The advanced trauma course is designed for nurses working in the emergency department, intensive care, flight and EMS, as well as the operating room.

## **Trauma Nursing Core Course (TNCC)**

TNCC prepares emergency nurses for life-threatening trauma cases when every second counts. This course

prepares the nurse with the knowledge, critical thinking skills and training needed to provide high-quality trauma nursing care. After completing this course, the nurse is able to properly assess and implement evidence-based interventions to improve outcomes for trauma patients.

## **Trauma Grand Rounds**

These educational events are presented live at Parkview Regional Medical Center and streamed live online for those who cannot attend in person. The presentations are recorded and posted online for viewing anytime by those unavailable for live attendance.

## **Trauma Simulation Training**

This realistic training experience utilizes high-fidelity adult and pediatric human patient simulators to practice trauma care under controlled conditions without lives being at stake. The focus is on teamwork and clinical trauma care. The training takes place live in the emergency departments at Parkview Regional Medical Center and Parkview Randallia Hospital, as well as in the laboratory setting in the Parkview Mirro Center for Research and Innovation Simulation Lab.

## **Annual Trauma Symposium**

The Annual Trauma Symposium is an event designed to improve trauma patient outcomes by providing up-to-date trauma education by local, regional and national subject matter experts. The full day event is attended by various regional trauma care providers. Topics for the 2022 event included: Anticipating the Unthinkable; The Role of Extraglottic Airways; Preparing and Responding to Emergencies; Oxygenation Strategies During Airway Management; The Aftermath of Sandy Hook; Surgical Airway Management; A Historical Look at a “Modern” Problem: Lessons Learned from Active Shooter Incidents: Using Memories of the Past to Plan for the Unimaginable; Coping with Chaos: 22,000 Victims in Vegas; Mass Casualty Caregiver Stress and Coping; and Thinking Like a Fighter Pilot.

## **Pediatric Trauma Symposium**

The 11th Annual Pediatric Trauma Symposium was held virtually in December 2021 and was attended by

many regional trauma care providers. This educational symposium focuses on educating providers with up-to-date trauma care research and clinical applications in caring for injured children. Topics included Pediatric Massive Transfusion and Pediatric Solid Organ Injury.

### **Child Maltreatment Symposium**

The 9th Annual Child Maltreatment Symposium was held virtually in three separate sessions in July 2021 and was virtually attended by many regional trauma care providers, as well as other community stakeholders. This educational symposium focuses on educating providers with up-to-date trauma care research and clinical applications in recognizing and caring for children who are victims of child abuse and neglect. Topics included: Follow-up Clinic to Child Maltreatment; Scope of Child Maltreatment, How, When, and Why to Report; and Northeast Indiana Community Resources.

### **Geriatric Trauma Symposium**

The annual Geriatric Trauma Symposium is an educational symposium focusing on educating providers with up-to-date trauma care research and clinical applications in caring for injured adults over 65 years of age.

### **Stop the Bleed**

The Stop the Bleed campaign raises awareness of lifesaving strategies, provides public access to bleeding control tools and empowers bystanders to act as immediate responders. Massive bleeding can be from any cause, but is often from an active shooter or explosive event where a delayed response can result in death. Victims can die from uncontrolled bleeding within five to ten minutes. In the same way that the general public learns and performs CPR, the public can learn proper bleeding control techniques, including how to use their hands, dressings and tourniquets. Anyone at the scene can act as an immediate responder and save lives if they know what to do. In 2019, the Parkview Trauma Services team taught Stop the Bleed and certified more than 1,300 individuals in over 30 different organizations.

### **Online Trauma Education**

Trauma educational opportunities are available on demand 24/7/365 on the Parkview Trauma Outreach Education website as well as the Parkview Trauma

Education YouTube page. Audio, video, podcasts, webinars, images, multimedia presentations, links to other online trauma resources and the monthly Trauma Case Study are available via the extranet. In addition, a monthly email called the Trauma eBlast! is sent to over 4,000 regional trauma care providers and contains current trauma-related topics. It also offers providers continuing education credit for completing online educational content.

### **Trauma Follow-up Letters**

When an injured patient arrives at Parkview Trauma Centers and is activated as a trauma patient by the emergency department team, we provide written follow-up in the form of a letter to referring hospitals and prehospital personnel who cared for the injured patient. These letters contain injuries identified, procedures completed, outcomes and any identified opportunities for improvement. In 2021, 1,470 follow-up letters were sent to regional providers in Indiana, Ohio and Michigan.

### **Regional/State/National Trauma Committee Participation**

Parkview Trauma Services is actively involved with numerous external trauma-related committees that meet regularly to help prevent trauma from occurring while improving the outcomes of injured people. Some examples of committee involvement in 2021 included:

- Trauma Center Association of America\*
- Indiana State Trauma Care Committee (ISTCC)
- ISTCC Performance Improvement Subcommittee
- ISTCC System Subcommittee
- ISTCC Injury Prevention Subcommittee
- Indiana Trauma Network
- Indiana Trauma Data Registry Committee
- Indiana District 3 Healthcare Coalition
- Indiana District 3 Trauma Regional Advisory Council
- Fort Wayne Trails Committee\*
- Northeast Indiana Regional EMS Protocol Committee
- Northeast Indiana EMS Primary Instructor Workgroup
- Indiana EMS Education Workgroup
- Various ad hoc committees

\* Board membership held by a Parkview Trauma Services co-worker.

# TRAUMA RESEARCH

Personnel from the Parkview Adult and Pediatric Level II Trauma Centers performed several research activities including presenting scientific findings to the nation.

## Scientific Presentations

### PRESENTATION 1

*Mass Casualty (MCI) Mini Drills on Trauma Surgery Department Staff Knowledge at Parkview Level II Adult and Pediatric Trauma Centers in Fort Wayne: An Educational Improvement Study*

Lisa Hollister, DNP, MSN, RN, Parkview Trauma Centers and Purdue University; Thein Zhu, MBBS, FACE, FRCP, Trauma Epidemiologist, Parkview Trauma Centers; Nancy Edwards, PhD, ANP-BC, FAANP, Purdue University; Becky Good, DNP, RN, FNP-BC, Purdue University; and Sarah Hoepfner, MSN, RN, CCRN, TCRN, Parkview Trauma Centers

Presented at TraumaCon, Society of Trauma Nurse Annual Conference, March 26–27, 2021.

### PRESENTATION 2

*Computed Tomography Scan Reduction in Pediatric Trauma Patients at Parkview Community Hospitals in Indiana*

Lisa Hollister, DNP, MSN, RN; Lauren Quandt, MSN, RN, CEN, TCRN; Jennifer Konger, MHA, BSN, RN, Trauma Program Manager, Parkview Community Hospital Trauma Programs; and Thein Zhu, MBBS, FACE, FRCP, Trauma Epidemiologist, Parkview Trauma Centers

Presented at the American College of Surgeons Quality and Safety Conference, July 12–16, 2021.

### **PRESENTATION 3**

*Difficult Airway Response Team (DART): A Novel Approach in a Non-Academic Level Two Trauma Center*

Connor Powers, BS, Mirro SERF Program; Lisa Hollister, DNP, MSN, RN, LSSBB, Parkview Trauma Centers and Parkview Community Trauma Programs; Thein Zhu, MBBS, DPTM, FACE, FRCP, Trauma Epidemiologist, Parkview Trauma Centers

Presented at the Student Education and Research Fellowship Program, July 28, 2021.

### **PRESENTATION 4**

*Community-Based Study on Hip Fracture in a Rural Area in Northeast Indiana*

Brandon Kimes, BS Chem, IU School of Medicine, Fort Wayne; Thein Zhu, MBBS, FACE, FRCP, Trauma Epidemiologist, Parkview Trauma Centers

Presented at the Indiana University Medical Student Program for Research and Scholarship, July 29, 2021.



Parkview Trauma Center  
11109 Parkview Plaza Drive  
Fort Wayne, IN 46845

NON-PROFIT ORG.  
U.S. POSTAGE  
PAID  
FORT WAYNE, IN  
PERMIT NO. 1424

## TRAUMA AND ACUTE CARE SURGERY LEADERSHIP

**Raymond Cava, MD, FACS**, Trauma Medical Director, Adult and Pediatric Trauma Centers, Parkview Regional Medical Center; Medical Director, Surgical Trauma ICU; Co-Medical Director, Pediatric ICU

**Jessica Murphy, MSN, RN**, Vice President, Surgical Services, Parkview Health

**Lisa Hollister, DNP, MSN, RN**, Administrative Director, Trauma System, Parkview Health

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

**Sarah Hoepfner, MSN, RN, CCRN, TCRN**, Supervisor, Trauma, Acute Care Surgery and Injury Prevention

---

**Jeffrey Nickel, MD, ABEM**, Emergency Department Trauma Liaison

**David Goertzen, MD, ABOS**, Orthopedic Trauma Liaison

**Jason Heisler, DO, AOBOS**, Orthopedic Trauma Liaison

**Jim Dozier, MD, ABNS**, Neurosurgery Trauma Liaison

**Joseph Yurkanin, MD**, Anesthesia Trauma Liaison

**Benjamin Moreno, MD, PhD**, Radiology Trauma Liaison

**Jayesh Patel, MD, FAAA**, Co-Medical Director, Pediatric ICU, Pediatric Trauma Liaison

**Richard Falcone, MD**, Pediatric Trauma Consultant, Pediatric Trauma Medical Director, Cincinnati Children's Hospital Medical Center