



TRAUMA

ANNUAL REPORT

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Letter from the EXECUTIVE DIRECTOR



In 2021, we saw the COVID-19 pandemic continue to challenge us in every aspect of our lives. Fortunately, 2021 was a year of adaptation as we found ways to return to some of the amazing projects and work we did pre-pandemic, while still managing the case surges and the staffing shortages. The pandemic did not impact trauma volume at Northeast Georgia Medical Center (NGMC) Gainesville in 2021. In fact, we have only continued to see an increase in traumatically injured patients from 2020 to now.

Even with the increased volume and acuity, the outcomes of our trauma patients continue to improve through collaborative efforts among our trauma care team members. From pre-hospital to the resuscitation phase in the Emergency Department, to our Surgical Trauma Intensive Care Unit and surgical floors and rehabilitation, NGMC's trauma program provides world-class care, right here close to home.

As I reflect on the year 2021, I could not be prouder to serve with this group of people who truly represent Respectful Compassion each day as they care for this very vulnerable population.

The year was filled with highlights including improvement projects to reduce length of stay and complications, educational achievements bringing new courses to NGMC, representation at national conferences to share the great work being done here and many other accomplishments. I hope you will take a moment to review this year's annual report for a glimpse the impact our trauma program has on our community!

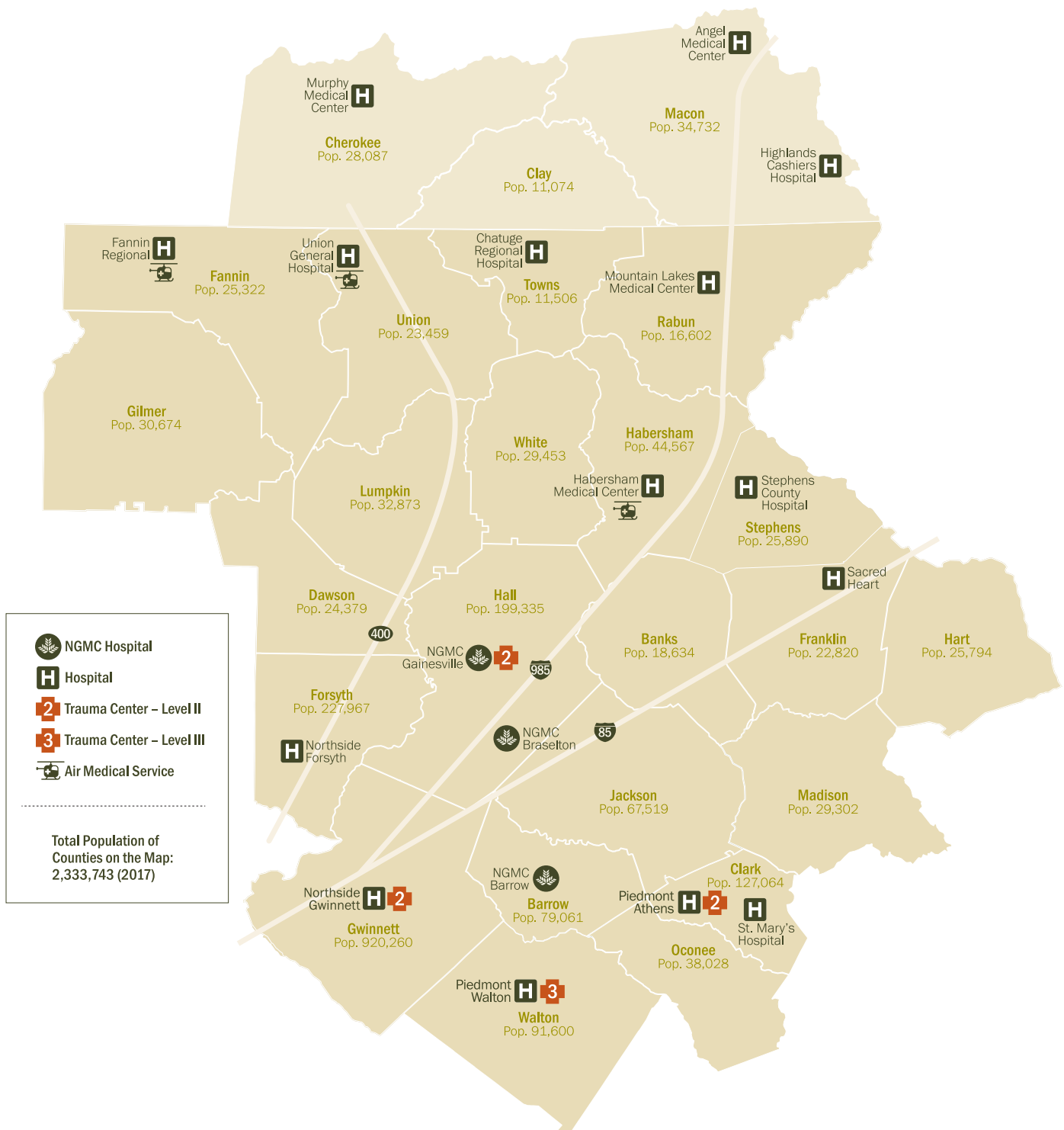
Enjoy, stay safe and thank you for supporting us on our journey to *improve the health of our community in all we do.*

Regards,

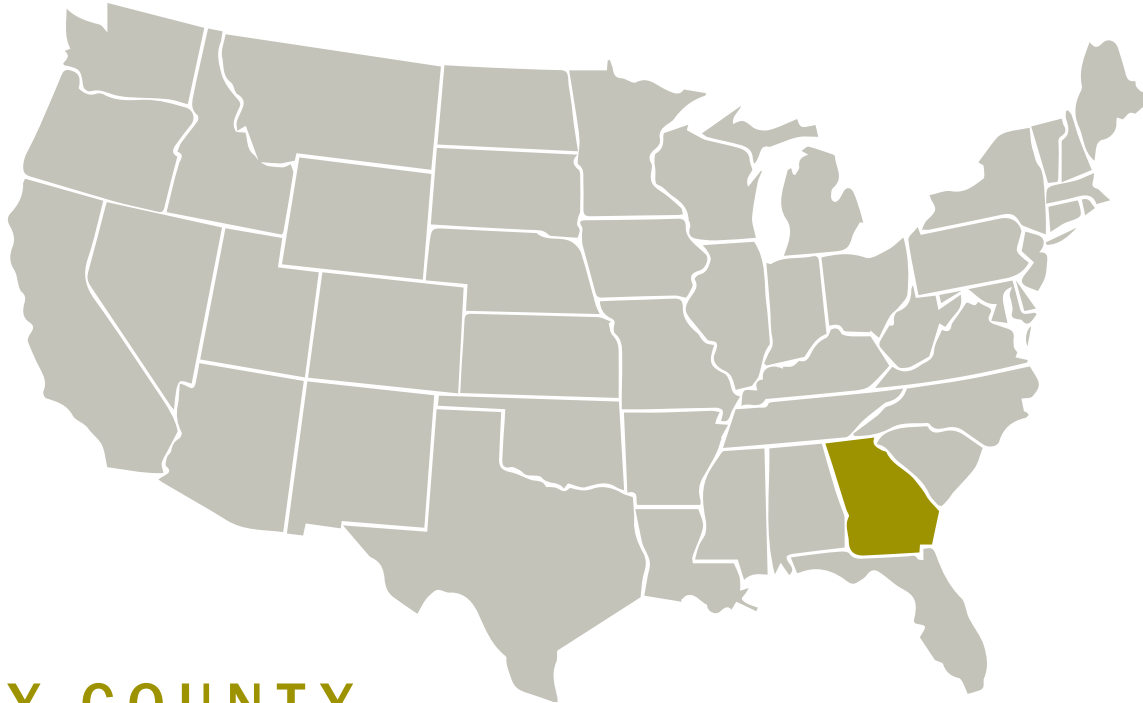
Angela Gary, MSN, MHA, RN

Executive Director, Trauma
& Emergency Services

NGMC TRAUMA SERVICE AREA



DISTRIBUTION OF PATIENTS FY20



BY COUNTY

BANKS	56	ELBERT	3	HOUSTON	3	PUTNAM	2
BARROW	102	FANNIN	25	JACKSON	134	RABUN	68
BARTOW	2	FLOYD	1	JASPER	1	RICHMOND	1
CARROLL	5	FORSYTH	60	JENKINS	1	ROCKDALE	1
CHEROKEE	11	FRANKLIN	11	LOWNDES	1	SCHLEY	2
CLARKE	4	FULTON	22	LUMPKIN	106	STEPHENS	90
CLAYTON	1	GILMER	7	MADISON	3	THOMAS	2
COBB	11	GORDON	1	MCINTOSH	1	TOWNS	28
COLUMBIA	3	GREENE	1	MERIWETHER	1	UNION	55
COWETA	2	GWINNETT	113	MUSCOGEE	1	WALTON	12
CRISP	1	HABERSHAM	176	NEWTON	2	WARE	1
DAWSON	83	HALL	788	OCONEE	1	WHITE	151
DEKALB	12	HART	2	PAULDING	1		
DOUGLAS	2	HENRY	2	PICKENS	2	OUT OF STATE	
EFFINGHAM	1	HOMELESS	1	PIKE	1	COUNTIES	169

BY HOME STATE

ALABAMA	2	INDIANA	2	NEW YORK	5	VIRGINIA	2
ARIZONA	1	KENTUCKY	1	NORTH CAROLINA	79	WASHINGTON	1
CALIFORNIA	1	LOUISIANA	1	OHIO	2	WISCONSIN	1
CONNECTICUT	1	MICHIGAN	2	PENNSYLVANIA	2		
FLORIDA	26	MINNESOTA	3	SOUTH CAROLINA	16	NORTH KOREA	1
GEORGIA	2181	MISSISSIPPI	2	TENNESSEE	13		
ILLINOIS	1	MONTANA	1	TEXAS	3		

TRAUMA SURVIVOR STORY

It was May 8, 2021 when Robb Sinn, Mathematics Professor at UNG, decided to take his new mountain bike for a ride along Woody Gap trail in Dahlonega, Georgia. He rode up to the top of the mountain but took a major tumble along the way down.

Lumpkin County Emergency Medical Services (EMS) arrived on the scene and found Mr. Sinn to be combative and agitated. They immediately suspected a severe traumatic brain injury (TBI). In order to get Mr. Sinn to the closest trauma center, Lumpkin EMS activated Airlife for rapid transport to Northeast Georgia Medical Center (NGMC) Gainesville.

"The crazy thing is, I still don't remember what happened. They told me I was lying beside my bike and the front tire was busted. The police told my wife that there had been no car collision and that someone driving by had called in to report the accident."

"When the policeman showed up at my door and told me what had happened, I must have been in shock - I didn't want to believe that my husband's life could be in danger," said his wife, Valerie.

Mr. Sinn arrived at the Emergency Department (ED) at NGMC Gainesville as the highest-level trauma activation, and an entire team of healthcare professionals, led by the Trauma Surgeon, were present and ready to assist. As soon as he was admitted, Robb was taken to the Operating Room (OR) for his severe head bleed.

Robb was noted to have "bifrontal contusions", a brain injury as the result of a sudden change in head movement, as well as a right temporal epidural/subdural hematoma and associated skull fracture. Robb was also noted to have two broken bones in his right arm.

After leaving the OR, Mr. Sinn was admitted to the Surgical Trauma Intensive Care Unit (STICU).

"When I first walked in, it was clear that they were watching for me," said Valerie. "I was able to see Robb before his surgery, and the staff were so extremely kind and attentive to me both during his surgery and throughout his recovery. They always kept me informed on his progress."

Over the course of his 6-week hospitalization, Robb underwent several other procedures and operations. Although he remained on a ventilator over the course of his hospitalization, his neurologic status began to slowly improve.

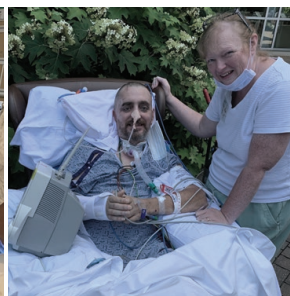
"I'm a mathematician and I know that coin flips don't always come out the way you might want them to - It's entirely possible I could have lost my life that day," said Robb. "I may not remember anything, but I know the team at NGMC knew exactly what to do. They saved my life at least 3 or 4 times!"

In June, the care team made a referral to the Shepherd Center in Atlanta for Robb's severe traumatic brain injury (TBI). Robb was fortunate to be accepted and he transferred to the Shepherd Center. He was sent home on August 7 after gaining full mobility.

"I am still currently in physical therapy for my shoulders and wrist after being in a hospital bed for the past few months. Thankfully, my job has been very flexible and allowed me to come back to work part-time."

Robb is now back to doing what he loves most - teaching - and he hopes to return full-time in the near future.

"Sometimes you don't need a professional to be your friend, you need them to fix the problem," said Valerie. "The trauma team at NGMC went above and beyond and did both for my husband, which is why I will always have a special place in my heart for them."



"The trauma team at NGMC went above and beyond ... which is why I will always have a special place in my heart for them."

-Valerie Sinn

TRAUMA NURSE NAVIGATOR

Navigating Trauma Care and Post-Injury Life



Donna Lee, MSN, RN
Trauma Nurse Navigator

Trauma is unexpected and scary for patients and their families. The injuries suffered are accompanied by emotions of uncertainty, anger, loss, depression and so much more. **The trauma team at Northeast Georgia Medical Center (NGMC) works diligently to manage the complex medical needs of trauma patients. In addition to the medical needs there are also resources to assist patients and their families as they navigate through the emotional journey of trauma.**

At NGMC, the Trauma Nurse Navigator (TNN), a masters prepared registered nurse with expertise in trauma care, is an integral part of the care team. The TNN serves as a patient/staff resource and utilizes creative problem solving to optimize care of the patient. In addition, the TNN serves as a liaison on the interdisciplinary team, working with providers, nursing staff, rehabilitation staff, and case management to provide seamless care to trauma patients throughout the continuum of care.

In 2021, the
NGMC Trauma Nurse
Navigator, Donna Lee

WORKED
with
1,280
TRAUMA PATIENTS

and

COMPLETED
a total of
4,258
PATIENT VISITS

Based on recommendations from the American College of Surgeons Committee on Trauma, NGMC's TNN developed and implemented new services related to Post-Traumatic Stress Disorder (PTSD) in trauma patients.

Data from trauma centers across the United States suggests that

20-40%

of injured trauma survivors
experience PTSD and/
or depression in the year
following injury.

For this reason, creating and implementing a PTSD screening process for trauma patients was a top priority for 2021. To identify patients at risk, the TNN performs an assessment to determine if any of the following signs of acute stress are present:

- Feeling like one is "in a daze"
- Problems with concentration
- Irritable mood
- Difficulty falling asleep or staying asleep
- Distressing memories of the traumatic event

If a patient experiences signs of acute stress for more than one month, a PTSD diagnosis may be given. The TNN provides resources to those who have a positive PTSD screen and encourages further follow up with a healthcare provider.

TRAUMA EDUCATION



Jessica Mantooth, BSN, RN
Trauma Nurse Educator

Northeast Georgia Medical Center (NGMC) improves the care of injured patients through education. Education is paramount to delivering safe, effective and quality care. The American College of Surgeons Committee on Trauma requires all nurses who care for the injured patient to receive trauma-specific education. NGMC ensures evidence-based care by offering physicians, EMTs, and nurses various continuing education opportunities.

NGMC's trauma program has a dedicated Trauma Nurse Educator who plans, coordinates, collaborates and executes various trauma educational experiences for NGMC staff. Every quarter, in partnership with the General Surgery Residency program, NGMC's trauma program hosts a Surgery Grand Rounds: Trauma Edition session, which is recorded and placed online for enduring educational opportunities. In addition, NGMC hosts the following classes at regular intervals each year: Trauma Nursing Core Course (TNCC), Trauma Care After Resuscitation (TCAR), and Advanced Trauma Life Support (ATLS). In 2021, the Society of Trauma Nurses (STN) welcomed Northeast Georgia Medical Center to the ranks of teaching sites for Advanced Trauma Care for Nurses (ATCN) and NGMC hosted its inaugural ATCN course in December.



Pictured above: ATCN faculty and instructors following the inaugural NGMC class. Trauma education at NGMC moves beyond the classroom

NGMC participated in trauma simulation both in the state-of-the-art GME simulation center at Lanier Park Learning Lab and simulation in the clinical area (SICU). Trauma simulations were held in various clinical areas including the Emergency Department, Interventional Radiology and Operating Room.

The collaborative effort between Trauma Services and each unit that cares for the injured patient is one example of deep interdependence at NGMC. Together, we improve the community in all that we do.

TRAUMA OUTREACH



Jackie Payne, BSN, RN
Trauma Outreach and Injury Prevention Coordinator

A trauma system is designed to get the “right patient, to the right place, at the right time.”

Trauma centers have the necessary personnel and equipment to care for the most severely injured patients. Severely injured patients also have better outcomes when they are treated at a trauma center.

Due to the rural and geographical nature of the northeast Georgia region, severely injured patients may receive care at a non-trauma center and then be transferred to a trauma center. **As the only trauma center in the region, NGMC understands and supports our EMS and hospital partners’ challenges. To combat these challenges, NGMC provides outreach and education throughout the region to ensure key stakeholders are equipped to provide initial care for severely injured patients.**

In 2021, NGMC Trauma Services and the mobile simulation learning lab team conducted RTTDC at Northeast Georgia Medical Center’s Lumpkin campus and at Habersham Medical Center. This course improves the quality of care in rural communities by developing a timely, organized, and systemic response to the care of the trauma patient

and a team approach that addresses common problems in the initial assessment and stabilization of the injured patient. With the use of the mobile simulation learning lab, participants can practice the systematic approach and stabilization on high fidelity mannikin simulators.

NGMC provided the American College of Surgeons Committee on Trauma’s Rural Trauma Team Development Course (RTTDC), a one-day didactic course for all individuals who care for injured patients (physicians, advanced providers and nurses, EMS, technicians and administrative support). RTTDC emphasizes a team approach to the initial evaluation and resuscitation and assists health care professionals in determining the need to transfer the patient to a higher level of care.

As part of the Northeast Georgia Health System mission to improve the health of our community in all we do, partnerships with pre-hospital and outside hospital stakeholders is essential. The relationships developed through trauma outreach are key to providing high quality trauma care throughout the region.

A trauma system is designed to get the **right patient, to the right place, at the right time.**

TRAUMA INJURY PREVENTION



Jackie Payne, BSN, RN
Trauma Outreach and Injury Prevention Coordinator

Effective community-based injury prevention initiatives use multiple strategies to reduce and prevent injuries and fatalities. Injury prevention begins with a focus on the most common causes of injury in the community followed by community education. Community injury prevention is a huge undertaking and therefore community partnerships are essential. In partnership with Legacy Link, Jackie Payne, the Trauma Outreach and Injury Prevention Coordinator, was given the opportunity to become a certified Tai Chi instructor. In 2021, Jackie taught one virtual and two in person Tai Chi classes.



Tai Chi originated in ancient China and consists of slow continuous whole-body movements strung together in a form. Like dance, the movements are learned and follow one after the other. The essential principles of tai chi include mind and body integration, fluid movements, controlled breathing and mental concentration. Today, Tai Chi is one of the most effective exercises for the health of mind and body, not only in China, but around the world. Tai Chi incorporates exercises that improve muscular strength, flexibility and fitness, all of which are effective therapies for those with arthritis.

STOP THE BLEED: LIFE-SAVING BLEEDING CONTROL TAUGHT “NON-TRADITIONALLY”

As injury prevention stakeholders across the state continued to adjust to the limitations of face to face community outreach, NGMC’s Trauma Outreach & Injury Prevention Coordinator partnered with the Georgia Trauma Commission and the Georgia Committee for Trauma Excellence to implement a virtual Stop the Bleed initiative. The “Stop the Bleed Blitz” was carried out over the summer in hopes of training more of Georgia’s schoolteachers, along with other community members. In just three short weeks, over 1,000 individuals attended one of the virtual training sessions to learn the lifesaving stop the bleed skills. This campaign was innovative and successful! NGMC’s team was proud to play a role.



To learn more about NGMC’s injury prevention programs please visit our website at <https://www.nghs.com/trauma/>

SAFE KIDS



Elaina Lee
Safe Kids Coordinator



The Safe Kids Northeast Georgia coalition is made up of numerous local community agencies who share a common goal to promote the reduction of traumatic injuries and death in children ages 19 years and younger. The coalition is led by the Safe Kids Northeast Georgia Coordinator who works alongside the Trauma Program at NGMC to promote injury prevention. The Northeast Georgia Health System (NGHS) Foundation funds Safe Kids Northeast Georgia through proceeds from The Northeast Georgia Health System (NGHS) Auxiliary's annual holiday shopping Marketplace event.

2021 granted Safe Kids Northeast Georgia the opportunity to reach those in the community that had directly been impacted by the COVID-19 pandemic from the previous year. This year, the coalition was successfully able to host the annual Safe Kids Day event with social distancing and use of face masks. The event included many partnering agencies such as the Gainesville Fire Department,

Gainesville Police Department, Georgia Mountain Food Bank and Amerigroup. **This initiative made it possible to reach over 200 children and parents in the Gainesville/Hall County community. During the event, coalition members and volunteers educated families on car seat safety while distributing 68 car seats to those in need.**

Home safety has also been a primary focus for the Safe Kids Northeast Georgia coalition. In partnership with the Northeast Georgia Medical Center Mother/Baby Unit, both departments worked diligently together to develop a process for educating parents of newborns on the dangers of poisonings. Poison safety magnets were designed to include the Georgia Poison Center call information for ease of access in the event of an emergency. Because of this deep interdependence, poison safety magnets will be distributed to each parent that delivers at both Northeast Georgia Medical Center Gainesville and Braselton campuses.

In 2021, the Safe Kids Northeast Georgia program was able to

REACH
over
17,000
PEOPLE

through community
events and virtual
classrooms

with over
1,850
safety devices
distributed in both
Hall and Barrow County.

Safe Kids Northeast Georgia is proud to continue **keeping children in Northeast Georgia safe!**

TRAUMA ACUTE CARE SURGEONS

NGMC has six dedicated trauma surgeons who are dual boarded in general surgery and surgical critical care. These surgeons are located in-house and are available to provide emergent interventions whenever needed.



Cecil Brown, MD, FACS



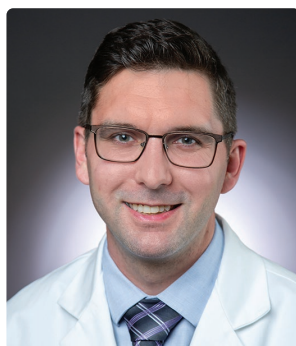
Michael Cormican, MD



Nathan J. Creel, MD



Brian Gibson, MD, FACS



Timothy Stevens, MD



Matthew Vassy, MD, FACS

TRAUMA ACUTE CARE SURGERY

Advanced Practice Providers

NGMC is fortunate to have nine advanced practice providers to support our trauma surgeons. Each of these providers has been specially trained to care for the critical needs of our trauma patients.



Kelsey Bradford
AGACNP-BC



Jennifer Wood, DNP
AGACNP-BC



Kris Hook, PA



Kyle Gibson
AGACNP-BC



Megan Hunter
AGACNP-TACS



Katrina Parker
AGACNP-BC



Robert Poole, PA



Jena Millwood



Nicole Moulder
ACNP-BC



Tonya Scott
AGACNP-BC



Leah Williams
AGACNP

MULTIDISCIPLINARY TRAUMA

Liaison Team

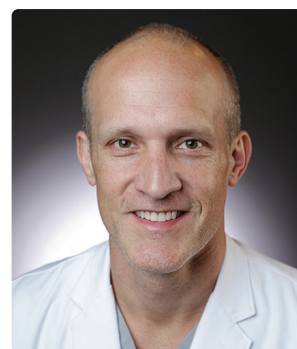
According to the ACS-COT, a trauma center is required to have a Multidisciplinary Trauma Peer Review Committee (MTPRC) made up of liaisons from all of the subspecialty groups that are involved in trauma care. The MTPRC meets monthly to review trauma cases to assure optimal care was provided. Each liaison provides the expertise needed to fully explore all potential opportunities for improvement. These liaisons also participate on the Multidisciplinary Trauma Systems/Operations Committee (MTSOC), with the goal of improving the systems and processes utilized across the trauma continuum of care, from outlying hospitals to EMS to the trauma center here at NGMC.



Brandon Bruce, MD
Orthopedic Surgery Liaison



Richard Trent, MD
Anesthesia Liaison



Cory Duncan, MD
Emergency Medicine Liaison



Jon Horn, MD
Radiology Liaison



Karl Schultz, MD, FACS, FAANS
Neurosurgery Liaison

TRAUMA SERVICES

NGMC's trauma program is equipped with essential staff to manage daily operations. Each of these staff members are committed to continuous improvement in trauma care at NGMC.



Angela Gary, MSN, MHA, RN
Executive Director, Trauma
& Emergency Services



Jesse Gibson,
MBA, BSN, RN
Trauma Program Manager



Linda Greene, CSTR
Trauma Registry
Coordinator



Monica Guerrero
Trauma Administrative
Coordinator



Denise Hughes, BS, CAISS
Trauma Registrar



Donna Lee, MSN, RN
Trauma Nurse Navigator



Elaina Lee
Safe Kids Coordinator



Jessica Mantooth, BSN, RN
Trauma Educator



Kathy McDanel, CPC
Trauma Registrar



Jackie Payne, BSN, RN
Trauma Outreach
& Injury Prevention
Coordinator



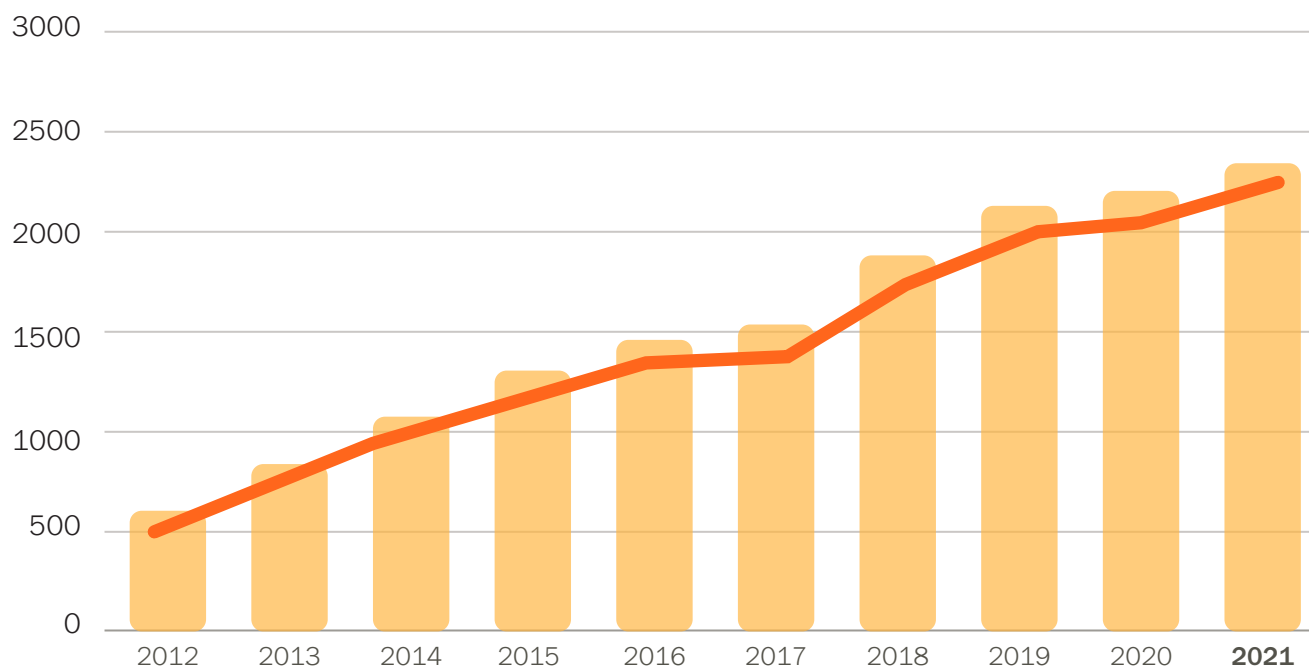
Maria Silva, HIMT
Trauma Registrar



Laura Wolf, MA, BSN, RN
Trauma PI Coordinator

VOLUME AND STATISTICS

Trauma Registry Volume and Admissions per Year



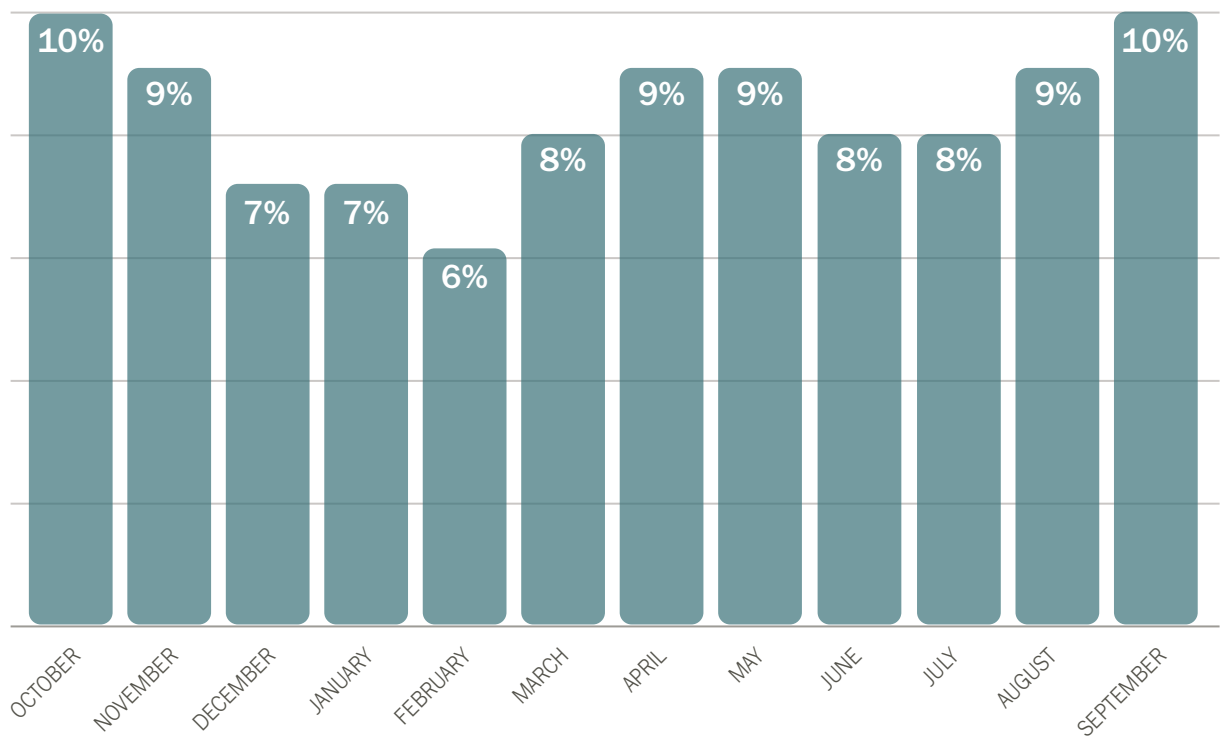
2021

Total Registry - 2350
 Admissions - 2215

	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total Registry	617	842	1070	1312	1473	1527	1877	2125	2194
Admissions	515	742	989	1192	1364	1391	1730	1986	2052

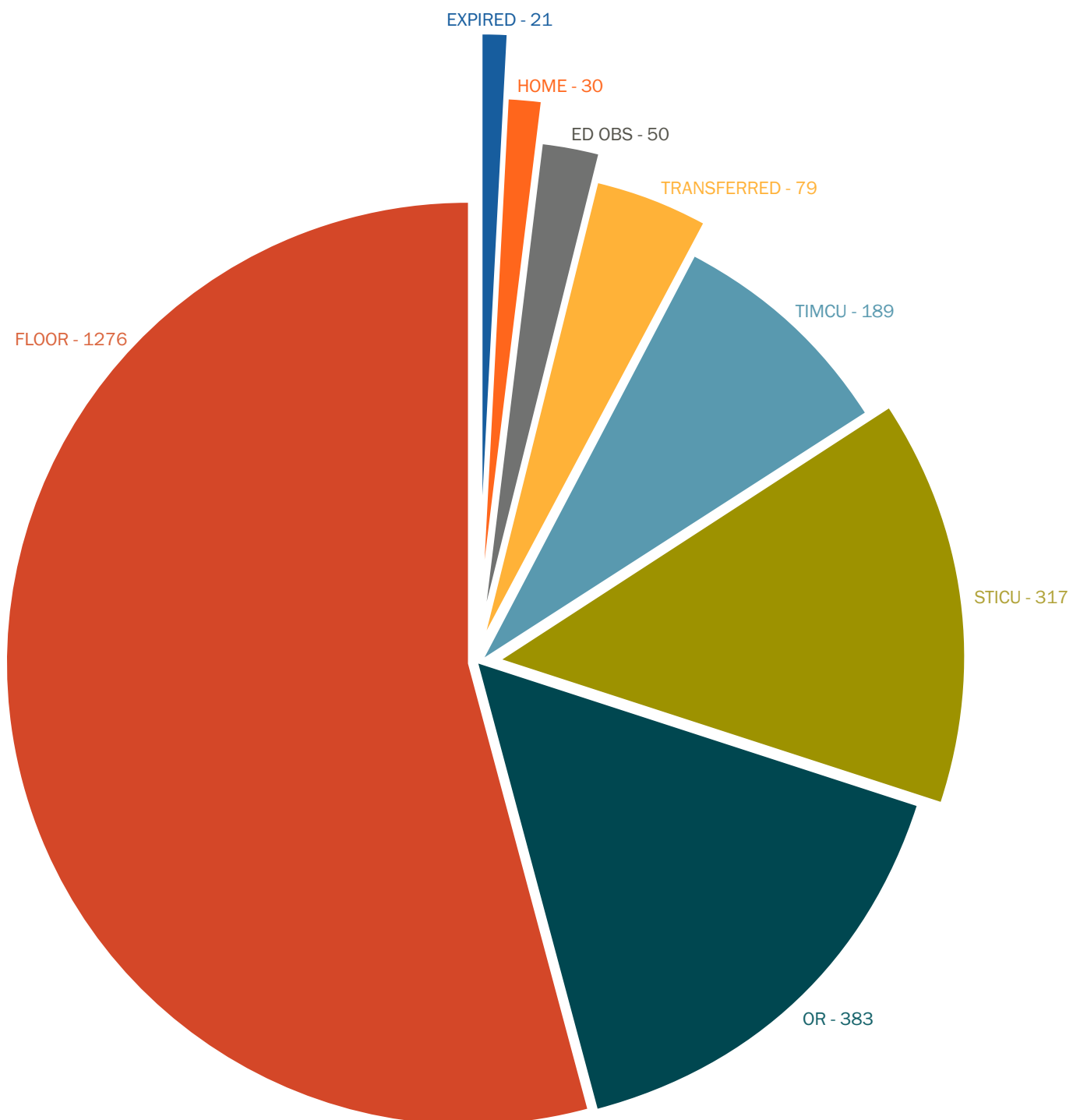
VOLUME AND STATISTICS

Trauma Admissions per Month (FY 2021)



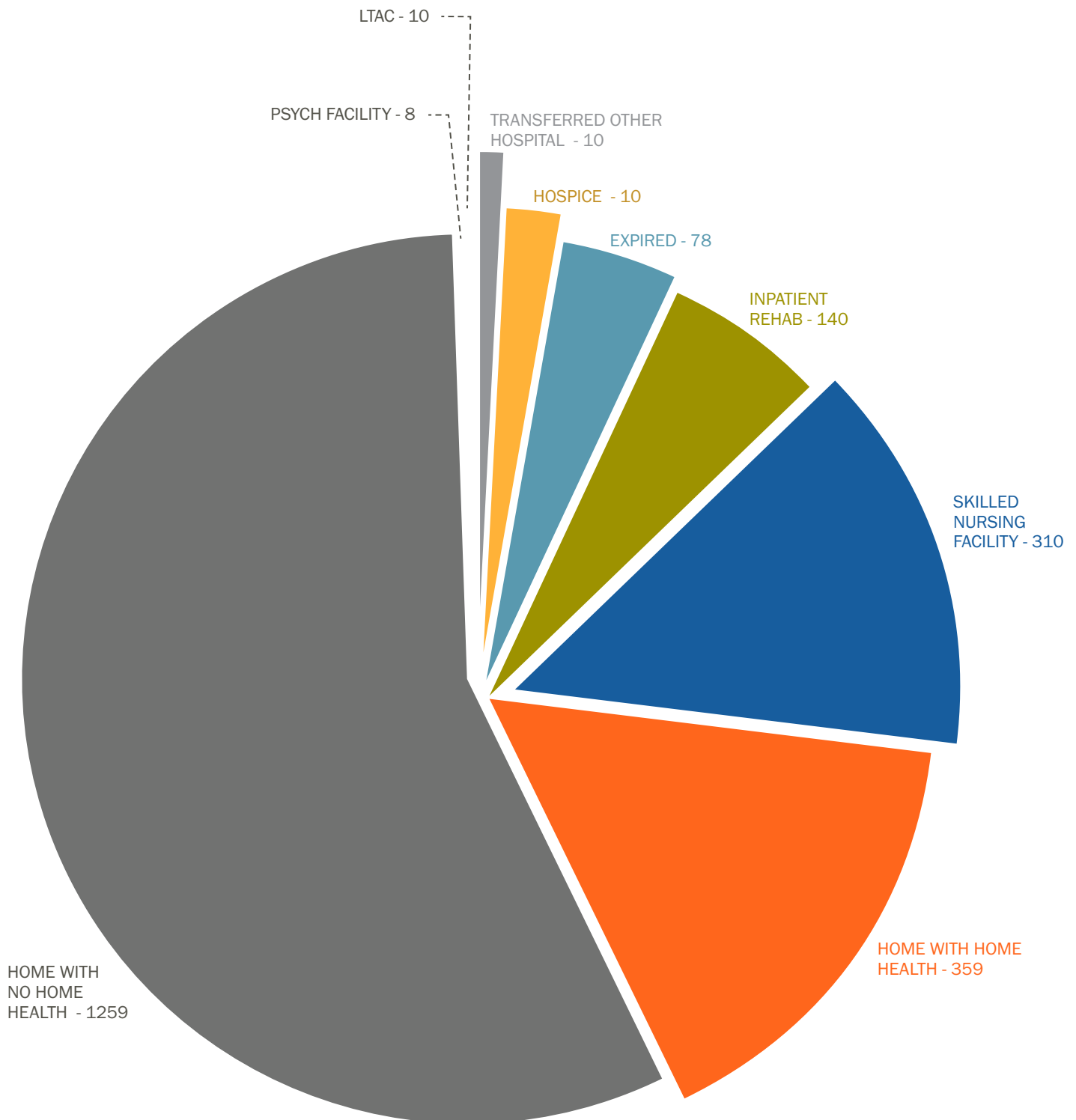
VOLUME AND STATISTICS

Emergency Department Disposition



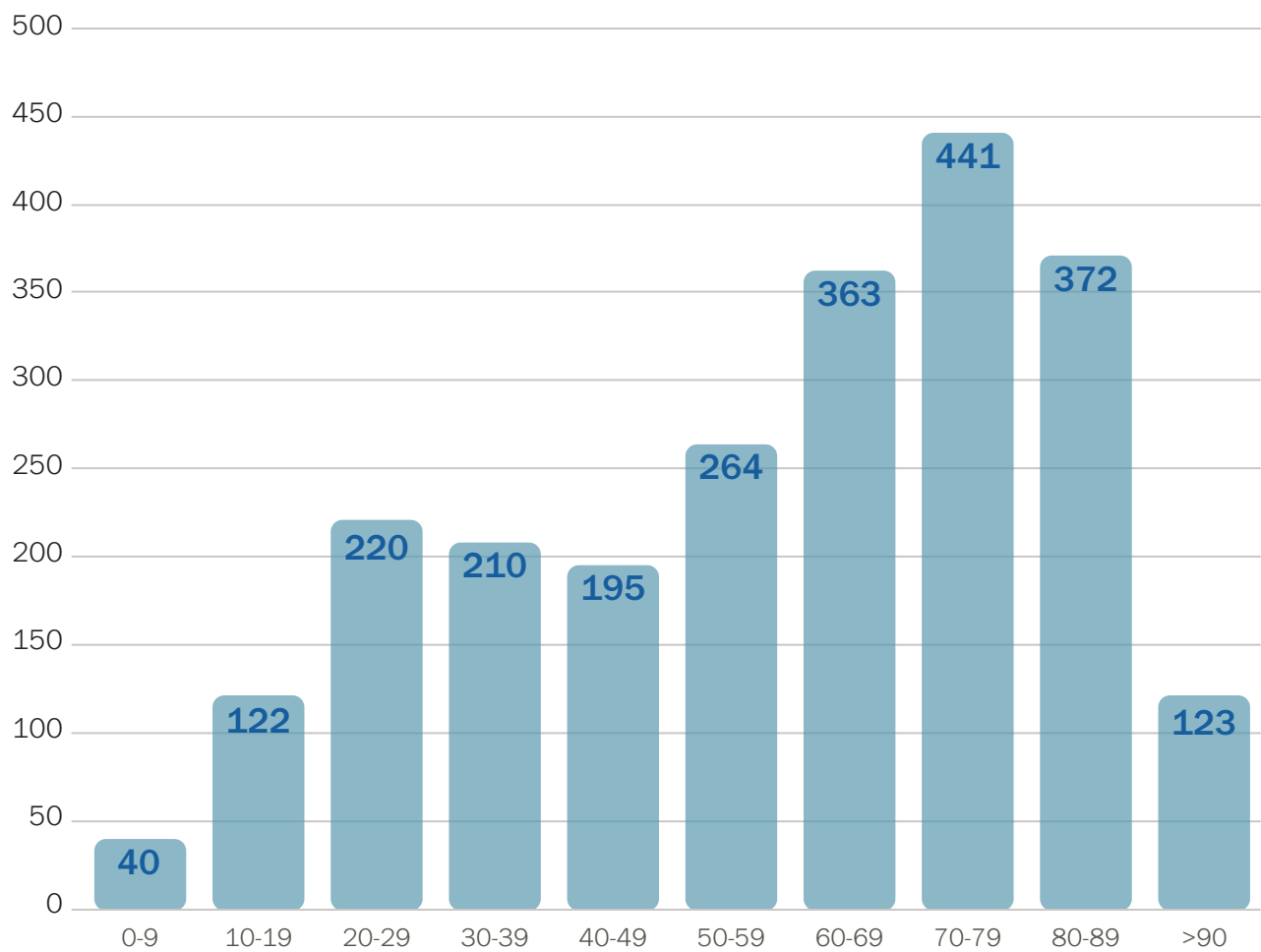
VOLUME AND STATISTICS

Hospital Disposition



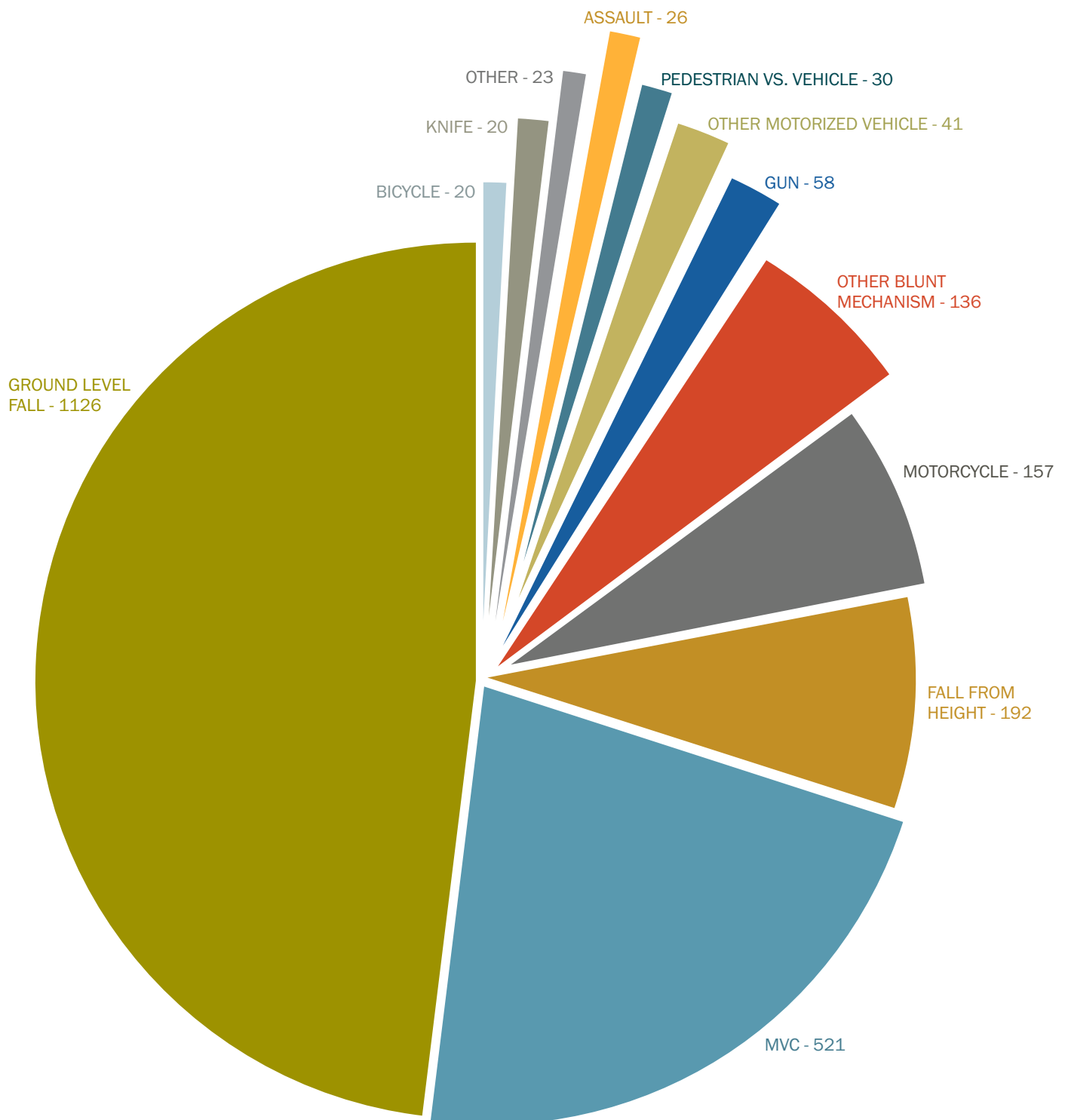
VOLUME AND STATISTICS

Trauma Patient Distribution by Age



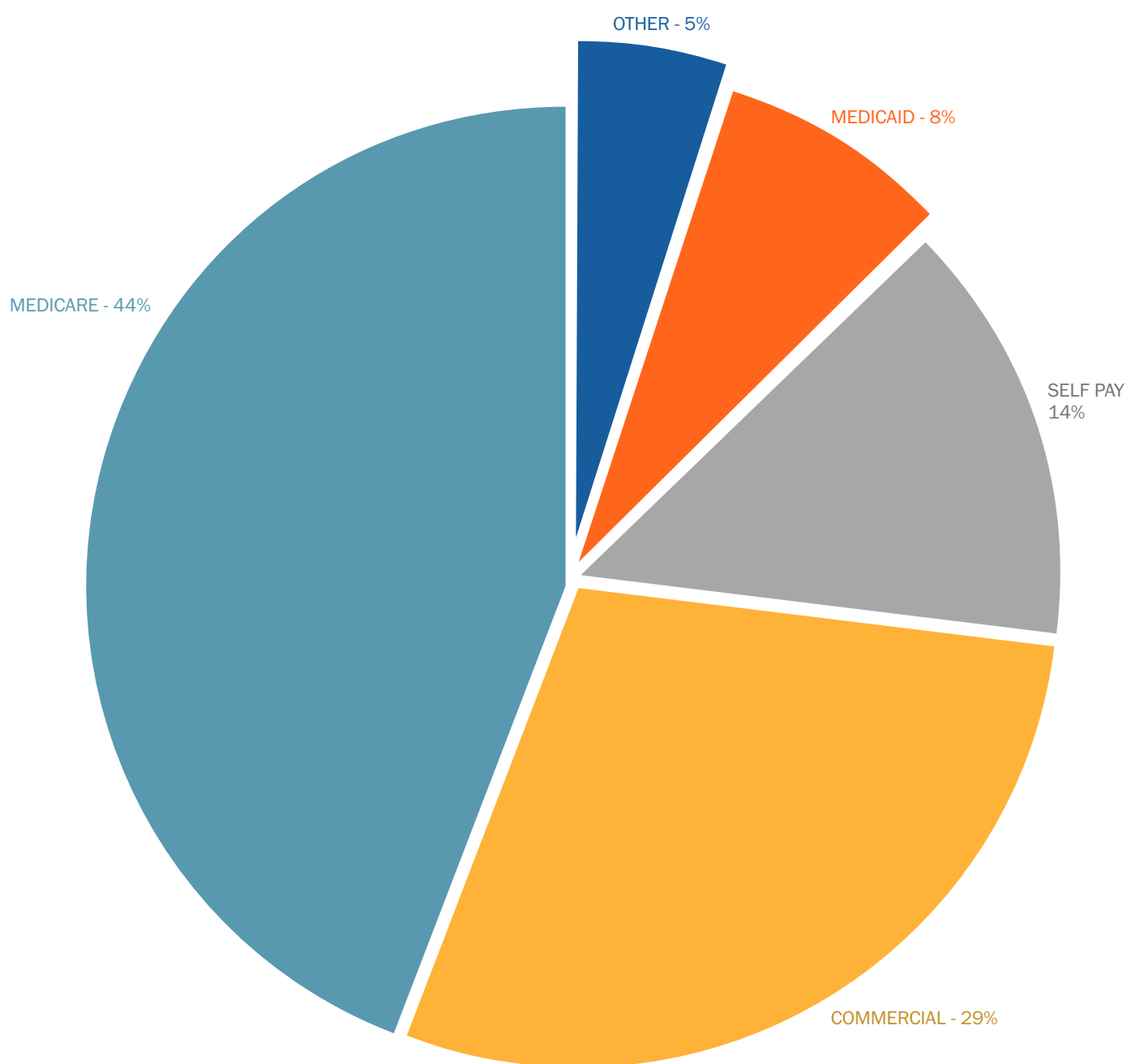
VOLUME AND STATISTICS

Causes of Traumatic Injury



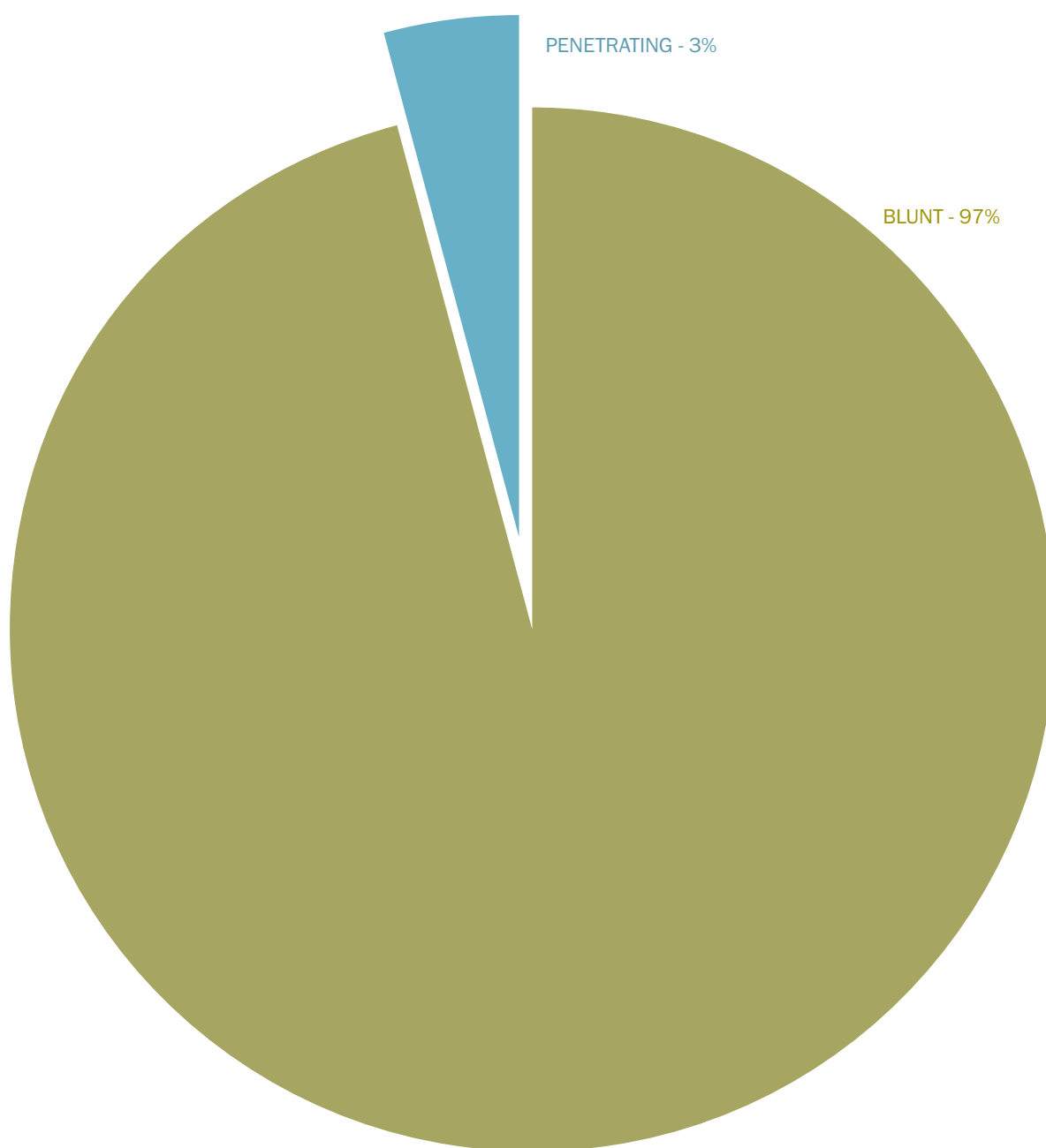
VOLUME AND STATISTICS

Trauma Payor Mix



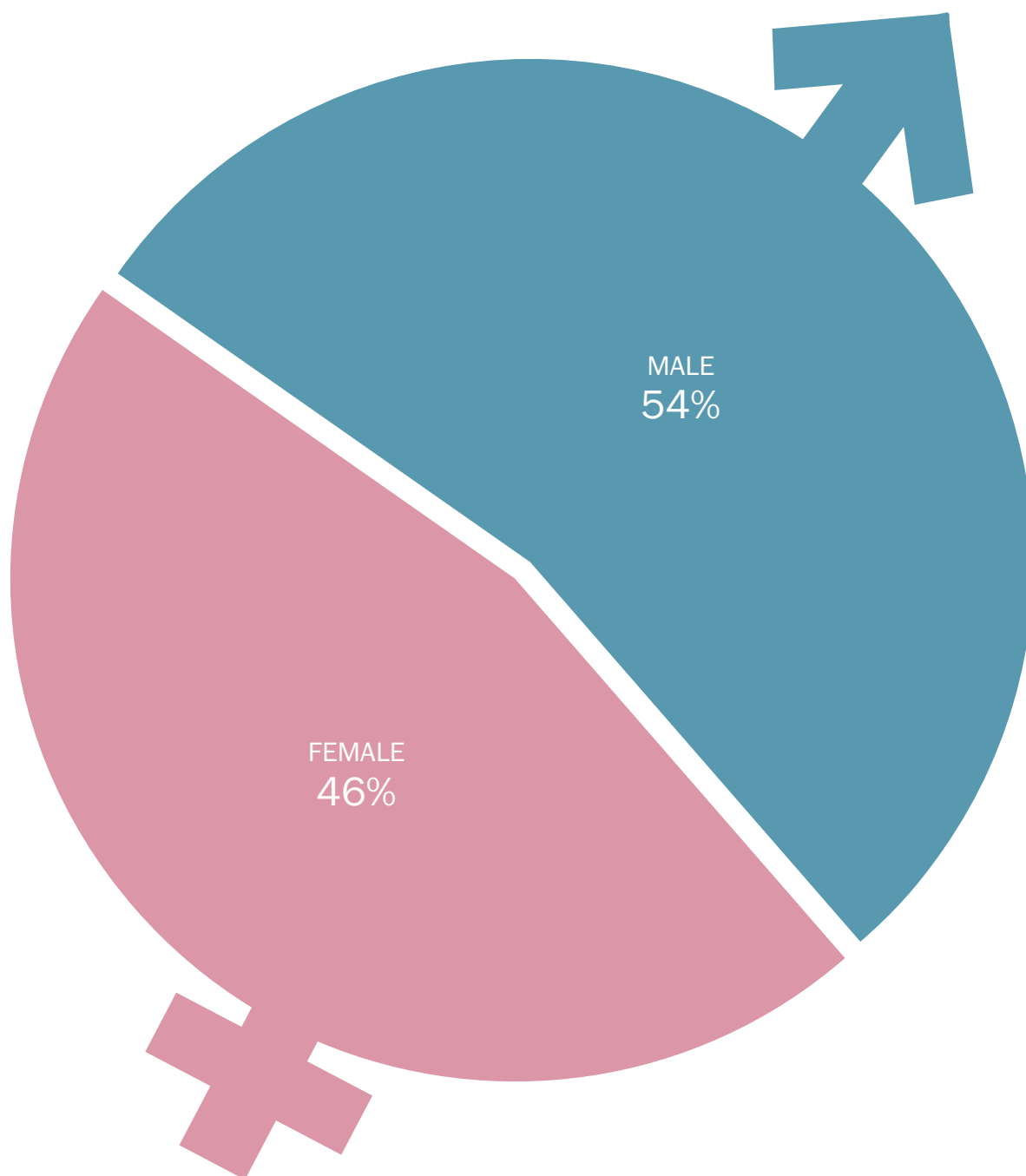
VOLUME AND STATISTICS

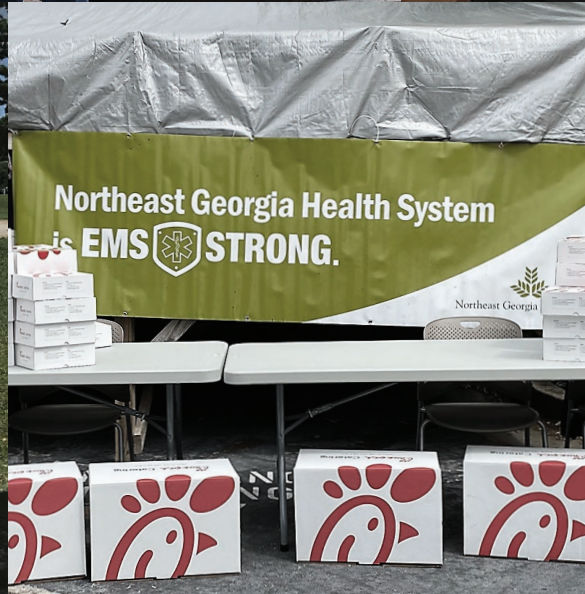
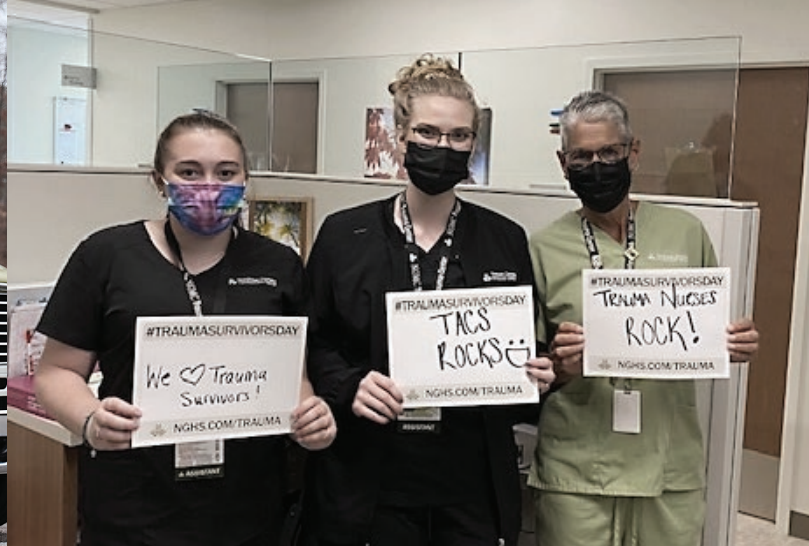
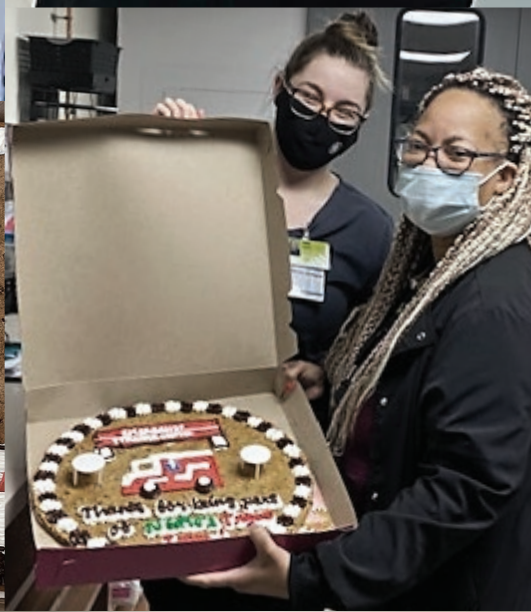
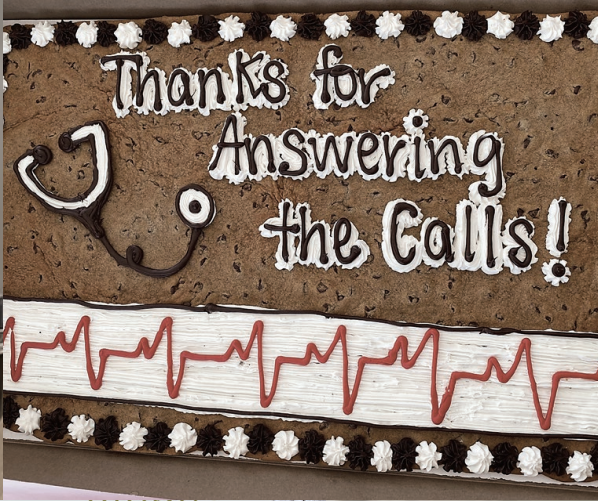
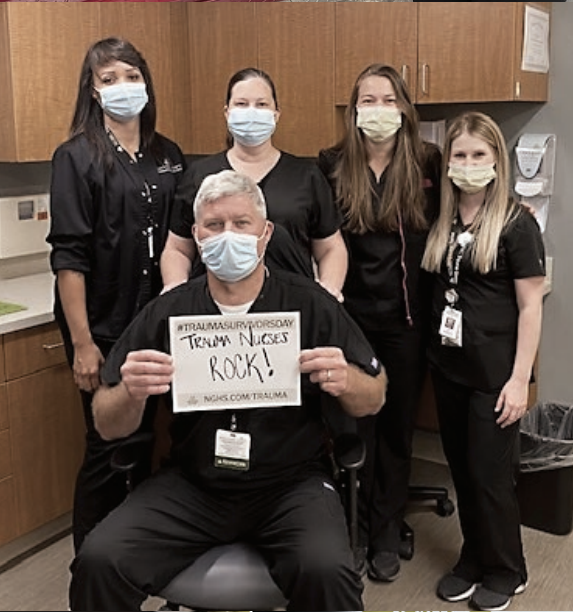
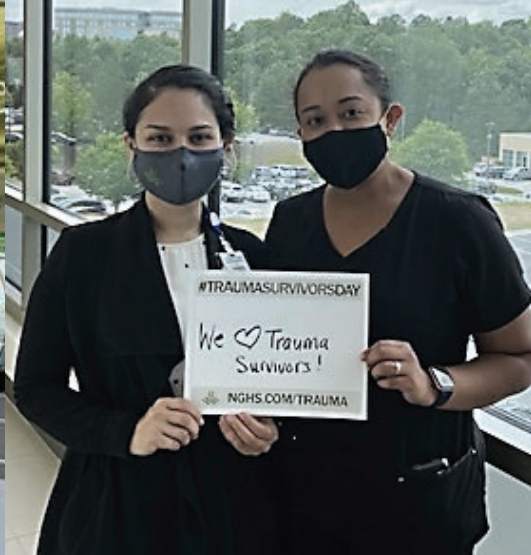
Blunt vs. Penetrating Injury



VOLUME AND STATISTICS

Trauma Patient Distribution by Gender







Northeast Georgia Medical Center