



2017 ANNUAL REPORT

RIGHT PATIENT.
RIGHT PLACE.
RIGHT TIME.





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NOTS STAFF



Jeffrey A. Claridge, MD, MS, FACS
Medical Director
Northern Ohio Trauma System

Division Director, Trauma, Critical Care, Burns and Acute Care Surgery
The MetroHealth System

"Collaboration is key for the success of NOTS. 'Alone we can do little, together we can do much.'" - Helen Keller



Cheryl Hawkins
Trauma Coordinator

"Having been with NOTS since its inception, it's rewarding to see how our annual Trauma Symposium has evolved and grown throughout the years. I'm excited to see what new educational opportunities we can provide to our region with the expansion of our NOTS partnership."



Olivia Houck, MPH, CPH
Data Specialist

"I am excited to be joining NOTS at a time of so much growth. Our expanded partnerships will allow us to capture even more data that provides insight into traumatic injury and subsequent direction to injury prevention, improvement of patient outcomes, survivor services, population health research, and more—all to the benefit of the patient and the community. I'm looking forward to seeing what we'll be able to accomplish together."



Danielle Rossler, RN, BSN, MBA
Trauma Program Manager

"Now that University Hospitals and Akron General has joined our growing team, we now can learn together and provide our patients with the same quality of care across the region."



Tod Baker
EMS Coordinator

"Throughout my life I have always believed in teamwork, whether in sports or at the fire house. NOTS has demonstrated how the team approach can benefit our patients and communities as the hospital systems collaborate with each other, share resources and work together to improve the lives of those we care for. It just proves that we can do more together than we can do alone."

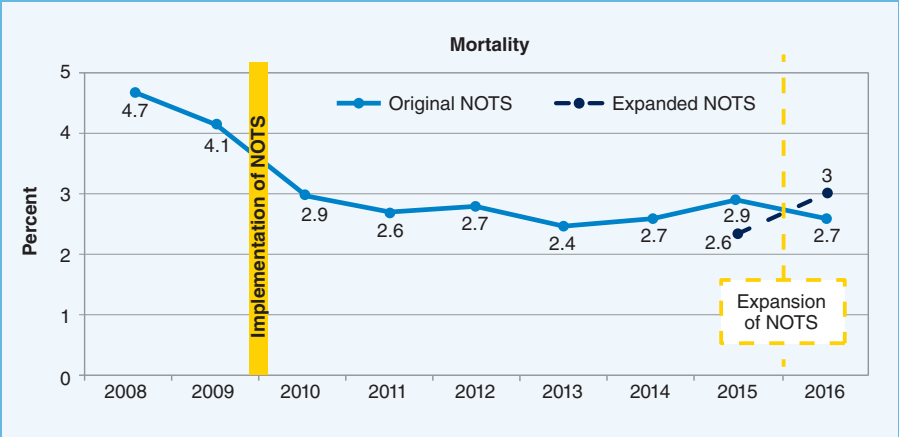


Andrea Martemus-Peters, MSSA, LSW
Violence/Injury Prevention Coordinator

"I am happy for the opportunity to work with individuals from the partnering hospitals who are dedicated to helping people receive quality care. Providing consistent services across the system is a benefit to individuals and the institutions. Each of us brings a specific skill set that enhances the work we do in a collaborative effort."

NOTS MISSION STATEMENT

To provide the highest **quality of care** to patients across the region by rigorously evaluating and improving outcomes, optimizing resources, and providing education utilizing a collaborative approach with hospitals, emergency medical services, and the public health services.



EXECUTIVE SUMMARY

This is the first yearly report that incorporates the addition of the UH system and Akron General. The report has taken longer this year, but we are happy to be more inclusive. This is very exciting and will give us the ability to identify both strengths and opportunities for improvement. We are excited to be a model for the nation of collaboration and data sharing. The next steps will be using the data to identify best practices and areas to improve. Throughout this report you will see changes from prior years. Since NOTS started, we have grown in so many ways. Many of these are highlighted in this report. We have increased the number of programs we support such as Stop the Bleed and the Violence Interrupter Program. Our symposium continues to improve year after year and started at about 200 participants to now well over 600 participants.

The number of trauma events reported in the first year (2010) was approximately 6900. Because we are now a larger and more inclusive regional system, we have data on 14,000 patients per year. Thus we have doubled our trauma events that we are now getting data on in our system. It is important to recognize that this increase is multifactorial but mainly secondary to having more patients in our region from the expanded NOTS. It does not directly imply that more trauma is happening. However, now that we are more inclusive we will be able to track this.

Throughout the report we will showcase our excellent trauma centers, staff, and share data. We are very excited to have expanded our staff and welcome Danielle Rossler as the NOTS Program Manager. I remain humbly committed to serving the region and working to improve outcomes across the region. This is optimized through collaboration and sharing data and best practices. We continue to work with regional EMS to have regionwide similar pre-hospital protocols. We strive to get the right patient to the right place at the right time.

Thank you.

Sincerely,

Jeffrey A. Claridge, MD, MS, FACS
Medical Director, Northern Ohio Trauma System



WELCOMING UNIVERSITY HOSPITALS

University Hospitals stepped forward in 2015 to meet a significant need for additional trauma care resources in our community by creating a coordinated regional trauma network of UH hospitals.

Central to this commitment was establishing UH Cleveland Medical Center as an adult Level I trauma center to treat the most severe traumatic injuries and help victims recover.

Now, as a member of the Northern Ohio Trauma System, UH and other trauma care providers deliver coordinated trauma care to patients throughout Cuyahoga County and a seven-county Northeast Ohio region. UH has continued to build on the collaboration among Northeast Ohio health systems during recent public health events, including flu and Ebola responses and the Republican National Convention preparation, to enhance trauma service delivery.

Across the UH system, UH Cleveland Medical Center's Level I trauma center coordinates with Level III trauma centers at UH Geauga Medical Center, UH St. John Medical Center in



Westlake, Southwest General Health Center in Middleburg Heights, and UH Portage Medical Center in Ravenna. UH Rainbow Babies & Children's Hospital is Northeast Ohio's only Level I center for children and adolescents.

Throughout the nation, coordinated regional trauma care has resulted in improved outcomes for trauma patients. UH's commitment to trauma care represents a significant resource for our community, and the UH system is honored to serve in this vital role.



Glen Tinkoff, MD
System Chief for Trauma

"Traumatic injury is a major public health issue," said Glen Tinkoff, MD, System Chief of Trauma and Acute Care Surgery at UH who also served for 18 years on the American College of Surgeons' Committee on Trauma. "By investing in comprehensive trauma care systemwide, UH is making a major commitment to providing all trauma victims the appropriate level of care they require and deserve, and doing so efficiently and effectively."



Nathaniel McQuay Jr., MD
Medical Director

"UH has a unique opportunity to improve trauma care for our area," said Nathaniel McQuay Jr., MD, Division Director, Trauma and Acute-Care Surgery, UH Cleveland Medical Center. "We are integrating our services into the entire trauma community and improving access."



Sandy Daly-Crossley
Trauma Program Manager

University Hospitals Rainbow Babies & Children's Hospital has been continuously verified as a Level I pediatric trauma center by the American College of Surgeons for 25 years, and is the only designated Level I pediatric trauma center in northern Ohio.

A Level I pediatric trauma center offers the highest level of trauma care across the continuum from injury prevention through rehabilitation. At UH Rainbow, board-certified trauma surgeons, supported by pediatric nurses and a pediatric emergency department team specially trained in the care of injured children, are ready to respond 365 days a year.

UH Rainbow's Pediatric Trauma Center works closely with northern Ohio's first responders and EMS professionals to be sure they are well-versed in special issues related to pediatric trauma, emergency and safe transport.

UH Rainbow's Level I pediatric trauma center is located in the Marcy R. Horvitz Pediatric Emergency Center at UH Rainbow Babies & Children's Hospital, which is part of the UH Cleveland Medical Center campus in University Circle.



Rainbow Babies
& Children's Hospital



Michael Dingeldein, MD
Medical Director for Pediatrics

"In trauma, every moment counts and teamwork becomes especially important. Our talented team is prepared 24 hours a day, seven days a week, to care for severely injured babies, children and young adults," said Mike Dingeldein, MD, Medical Director of the Pediatric Trauma Center at UH Rainbow.



Lynn Horton
Pediatric Trauma Program Manager

WELCOMING CLEVELAND CLINIC AKRON GENERAL

Cleveland Clinic Akron General joined NOTS in 2017. Akron General is new to the Cleveland Clinic System. It brings a Level I trauma hospital to their ever growing system and brings NOTS another Level I hospital to the mix.

Emergencies are never planned. But when they do happen, patients at Cleveland Clinic Akron General are met by a responsive and caring staff of board-certified emergency physicians and other specially trained professionals – including nurses, technologists, social workers, and chaplains. A Level I Trauma Center, as designated by the American College of Surgeons (ACS), Akron General offers the technology, expertise and staffing to treat all injuries regardless of severity. Operating rooms, diagnostic services and trauma specialists are on-call 24 hours a day.

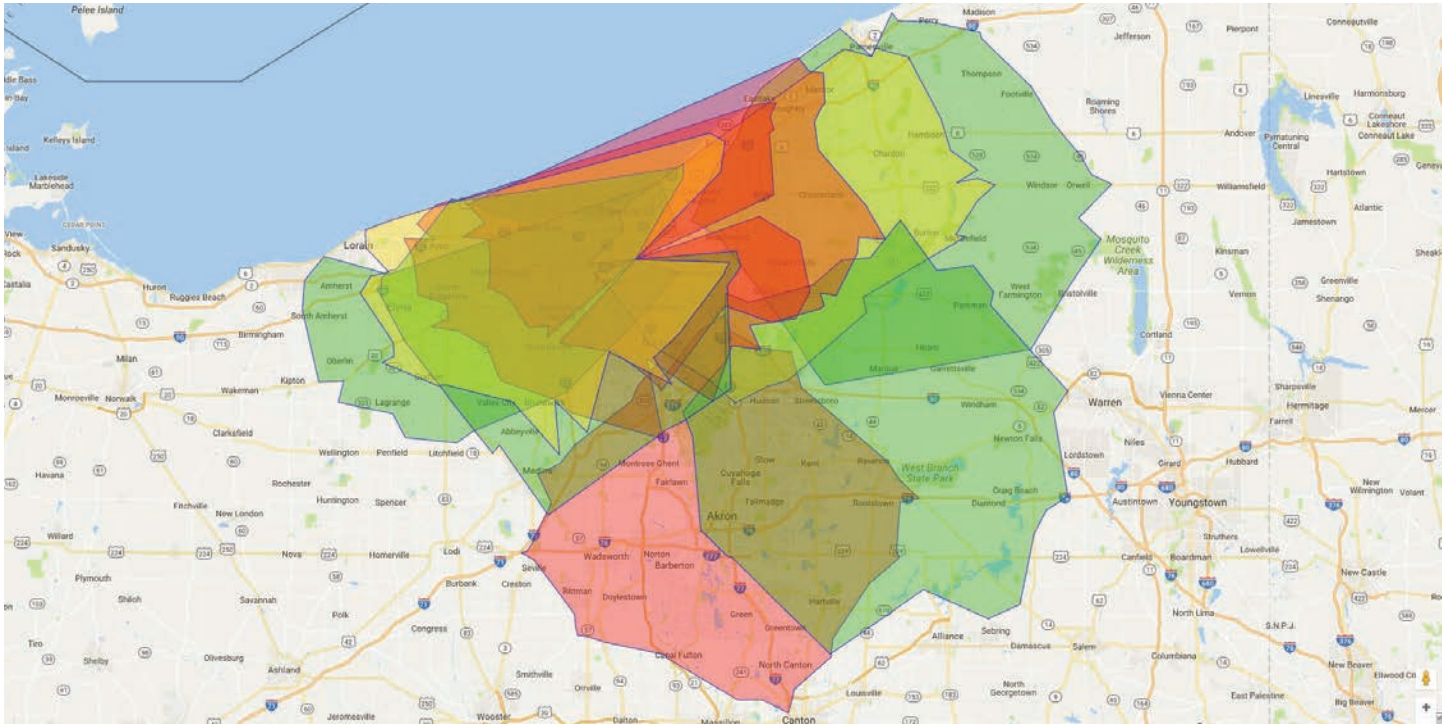
All emergencies are about recovery, but it's especially important to trauma victims. More severe injuries may require additional or specialized medical attention, now and in the future. Akron General provides patients with comprehensive care from the time of injury all the way to recovery. This includes treatment while admitted and after discharge, such as therapy and rehabilitation.

Akron General Brings the PATH Program to their patients:
Akron General's main Emergency Department offers the PATH (Providing



Access To Healing) Center to provide quality, trauma-informed, compassionate care to victims of sexual assault, domestic violence, elder abuse and neglect for Summit and surrounding counties, while also ensuring quality of evidence collection. The PATH Center is staffed by professionals trained in the systematic collection of evidence in an atmosphere of support and compassion.

NOTS HOSPITALS 30 MIN DRIVE TIME



Drive Time: Travel time in 30 minutes at an average of 45 mph.

Level I Level II Level III

COLLABORATION

- Collaboration of trauma outcomes and sharing of data to improve patient care across the region.
- Improve patient education on injury prevention/ violence prevention.
- Working on shared EMS protocols to get the right patient to the right place at the right time.



Farid Muakkassa, MD
Chief Of Trauma Services



Sharon Wiita, BSN, RN, CEN
Trauma Program Manager



Ali Farouk Mallat, MD
Trauma Surgeon



Robert Marley, MD
Trauma Surgeon



William Papouras, MD
Trauma Surgeon



Scott Hockenberry, MD
Trauma Surgeon



MetroHealth Medical Center

Level I Adult
Level II Pediatric

University Hospitals Cleveland Medical Center

Level I Adult

University Hospitals Rainbow Babies and Children's

Level I Pediatric

Akron General

Level I Adult

Fairview Hospital

Level II Adult

Hillcrest Hospital

Level II Adult

Southwest General Health Center

Level III Adult

St. John Medical Center

Level III

University Hospitals Portage Medical Center

Level III

University Hospitals Geauga Medical Center

Level III

METROHEALTH: SAFETY TO GO

The MetroHealth System's Division of Trauma has partnered with Safety to Go to fund a portable safety town program within the Cleveland Municipal School District. Safety to Go is a safety awareness and training program that provides Pre-K and kindergarten students with education on topics such as traffic/railroad safety, pedestrian safety, water safety, bike safety, stranger danger, anti-bullying, 911, gun safety, fire safety, seatbelt safety, and bus safety. Through in-classroom lessons and participation in a hands-on safety community, children will learn valuable lessons to help prevent childhood accidents, injuries, and deaths. The partnership between the Division of Trauma and Safety to Go has brought necessary safety education to over 1,000 students in Cleveland with twenty additional schools scheduled for the 2016/2017 school year.

Cristina Ragone, Trauma Program Manager

AKRON GENERAL: MATTER OF BALANCE and TAI CHI FOR BALANCE

Akron General has developed a comprehensive falls prevention program. These two programs are evidence-based programs to decrease falls in older adults. Patients are referred to these programs through our Wellness Center, physician partners and community partners.

Sharon Wiita, Trauma Program Manager

UNIVERSITY HOSPITALS: AGE WELL AND BE WELL PROGRAM

This program enables seniors to take part in a variety of health and wellness events. The "Matter of Balance" class is offered free of charge to our seniors and discusses ways to stay active, safety at home, promote exercises for strength training, and discuss ways to make the home safe and free from fall hazards. Our Rehab department offers free balance screening events throughout the year to also assist in fall prevention outreach.

Deana Pace, Trauma Coordinator for UH Geauga

HILLCREST HOSPITAL: PROM PROMISE

Every year Hillcrest Hospital partakes in educating the youth during Prom season. The main focus is to educate high school students about not drinking and driving.

Mary Anne Edwards, Trauma Program Manager

FAIRVIEW HOSPITAL: SAFE DRIVING FOR SENIORS

Fairview Hospital's goal is to improve health and prevent injuries, thereby improving quality of life. In conjunction with Fairview Hospital's Wellness Center, there are many offerings of Injury Prevention to choose from. This includes, but is not limited to, Safe Driving for Seniors, Tai Chi Balance, Be in Control-Safe Driving for Teens and Adults, and Human Trafficking-What You Need to Know.

Bernadette Szmigielski, Trauma Program Manager



RAINBOW BABIES AND CHILDREN: MOTOR VEHICLE SAFETY OUTREACH

Rainbow Babies and Children's Hospital has a robust motor vehicle safety outreach and education program that encompasses child passenger safety, teen driver safety, seat belt use, and impaired and distracted driving. The UH Rainbow Injury Prevention Center staff is comprised of nine certified Child Passenger Safety Technicians (CPST), five of whom are Child Passenger Safety Technician Instructors (CPST-I). Three of the team's instructors have completed the National Center for the *Safe Transportation of Children with Special Health Care Needs*, *Safe Travel for All Children: Safely Transporting Children with Special Healthcare Needs* course and have expertise in assisting families with children who have special transportation needs.

Lynn Horton, Trauma Program Manager

NOTS ADVISORY BOARD

As NOTS has expanded regionally, we would like to introduce you to our newest board members: Dr. Glen Tinkoff, Dr. Christopher Miller and Daniel Ellenberger from University Hospitals Cleveland Medical Center, Dr. Bernard Boulanger and Dr. John Wilber from MetroHealth Medical Center. NOTS plans to expand their educational activities across all three systems and throughout the region with the support from the Board. Collaboration has been key in the success of NOTS. We plan to continue the wonderful collaboration, transparency and the commitment to place the community above self.



Robert Wyllie, MD

Chief Medical Operating Officer
Systemwide Medical Operations
Associate Chief of Staff
Professor, Lerner College of Medicine
Cleveland Clinic



Bradford L. Borden, MD, FACEAP

Chairman
Emergency Services Institute
Associate Chief of Staff
Staff Affairs
Cleveland Clinic



Christopher Brandt, MD

Chair, Department of Surgery
MetroHealth Medical Center
Richard B. Frattianne MD
Professor of Surgery
Case Western Reserve University



E.J. Eckart, Jr.

Assistant Director
Cleveland Department of Public Safety



Glen Tinkoff, MD, FACS, FCCM

System Chief for Trauma and
Acute Care Surgery
University Hospitals Cleveland



R. Matthew Walsh, MD, FACS

Professor of Surgery
Rich Family Distinguished Chair
of Digestive Diseases
Chairman, Department of General
Surgery, Digestive Disease Institute
Chairman, Academic Department
of Surgery, Education Institute
Cleveland Clinic



Christopher Miller, MD, MS

Chair of the University Hospitals'
Cleveland Medical Center Department
of Emergency Medicine
Clinical Professor of Emergency Medicine
Case Western Reserve University School
of Medicine



Terry Allan, MPH

Health Commissioner
Cuyahoga County
Board of Health



Bernard Boulanger, MD, MBA

Executive Vice President, Chief Clinical
Officer of The MetroHealth System
Professor of Surgery, Senior Associate Dean
Case Western Reserve University
School of Medicine



John H. Wilber, MD

Chairman, Department of Orthopaedic Surgery
MetroHealth Medical Center
Professor of Orthopaedics
Case Western Reserve University
School of Medicine



Dan Ellenberger

Director, EMS Institute University
Hospitals EMS Training & Disaster
Preparedness Institute

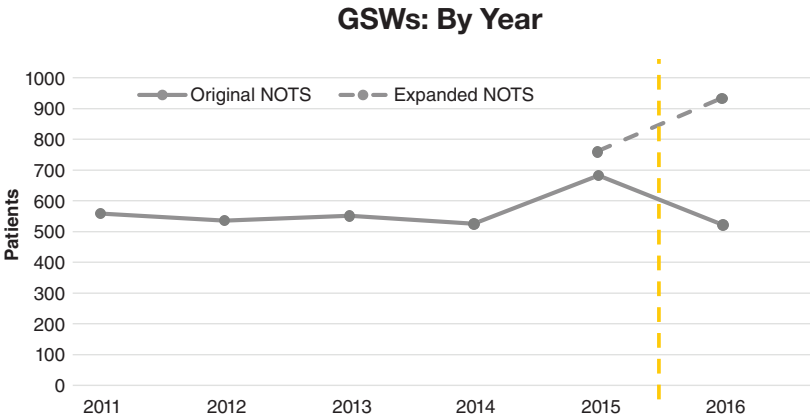
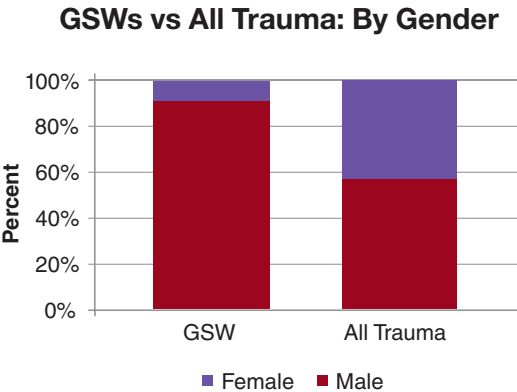
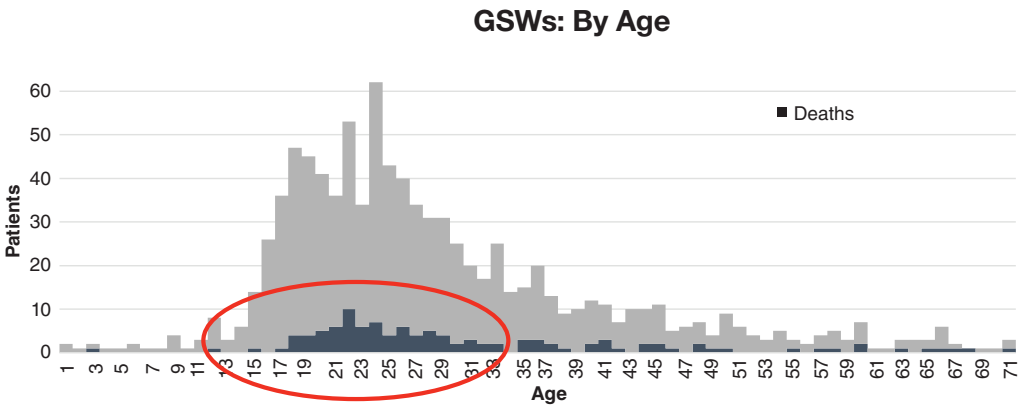
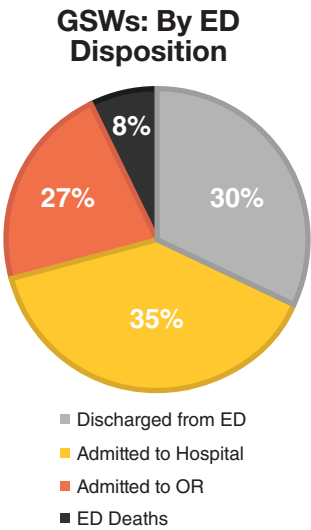


SPOTLIGHT ON GUNSHOT WOUNDS

- There were **936** GSWs seen in 2016
- 90% of GSW patients were male
- 30% were discharged from the ED
- 26% were taken directly to the OR from the ED
- Of those who were admitted, 43% went directly to the OR
- Of those who were admitted, 28.9% had a stay in the ICU, with an average ICU stay of 3.9 days
- Mortality rate of those who were admitted was 6.7%



Impact 25. Violence Initiative for the City of Cleveland
Picture from 2016 NOTS Symposium
Taken by Paul Thomas



GUN VIOLENCE
PREVENTION

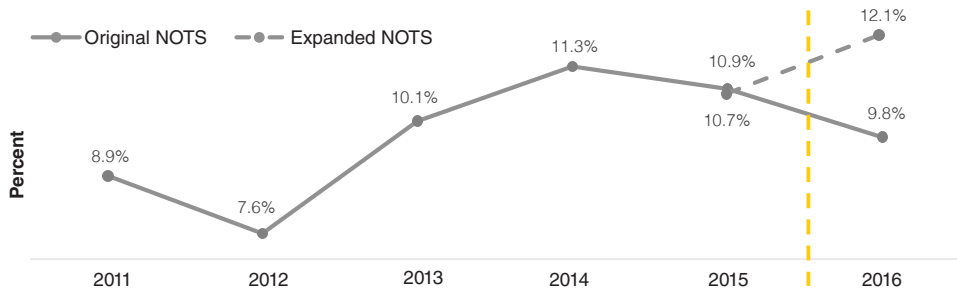
NOTS started the Violence Interrupter Program at MetroHealth Medical Center in November of 2016. Andrea Martemus-Peters has been at the forefront of this program. The program currently has two violence interrupters with a plan to expand to four to reach the eastside and westside violence. Their role is to help patients injured by gun violence and to stop any retaliation on the streets. The violence interrupters see patients from ages 18-25 with the goal to increase the age range. Our violence interrupters have worked with nearly 100 patients year to date.

NOTS plans to expand this program to University Hospitals at the beginning of 2018.

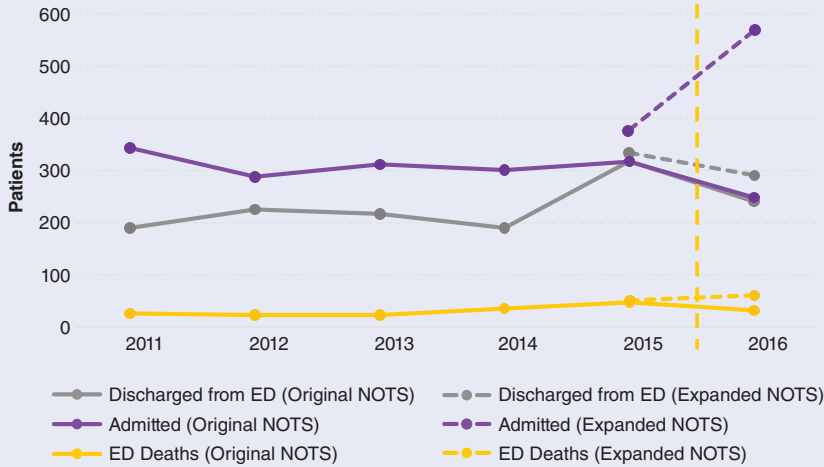


Pictured to the left: JD, Andrea and Jeff

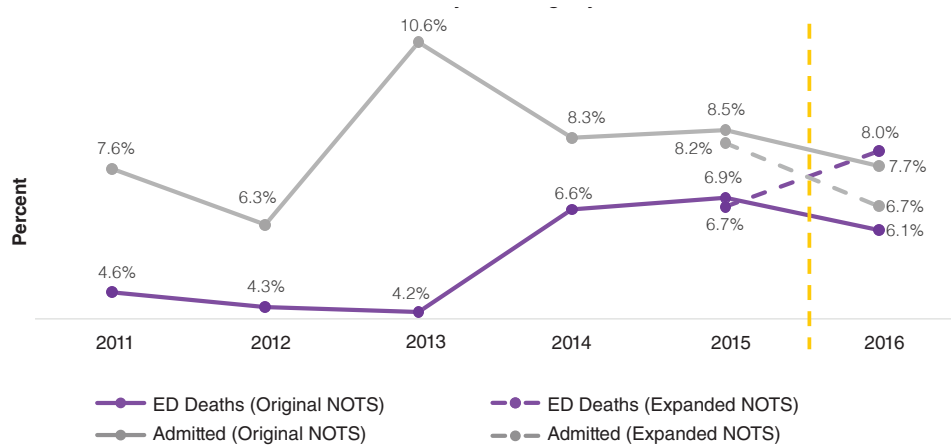
GSWs: Mortality by Year



GSWs: By Year and ED Disposition

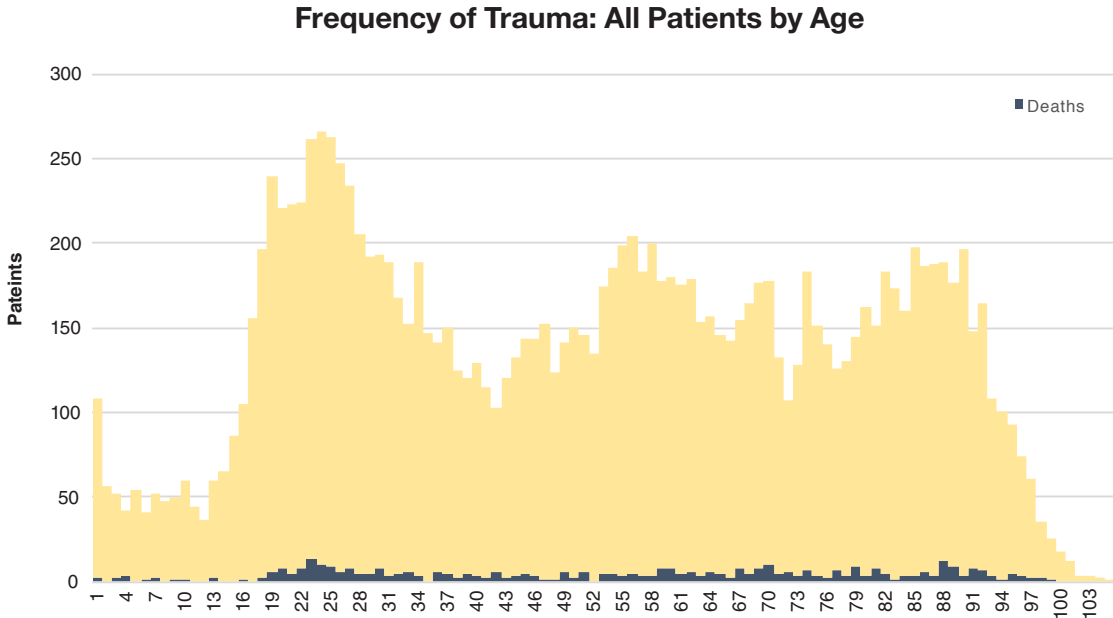
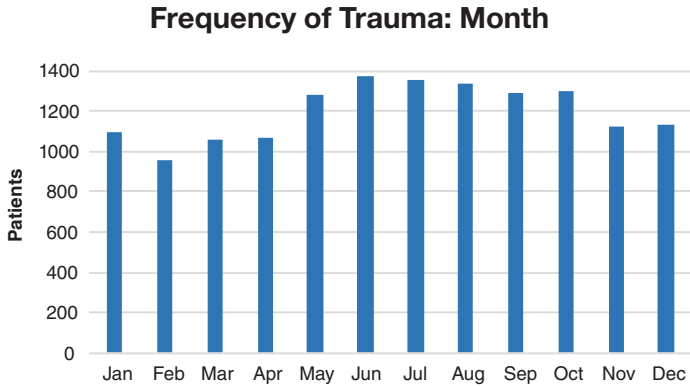
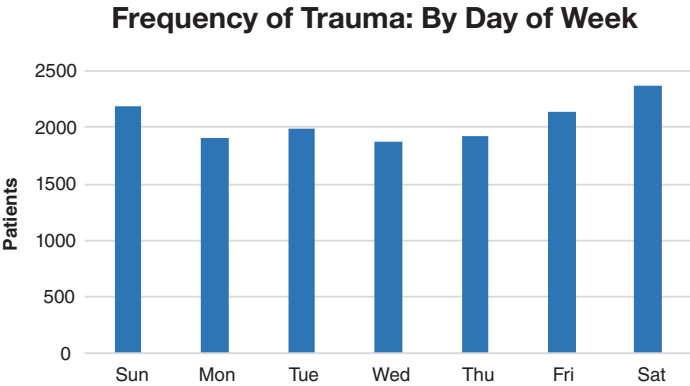
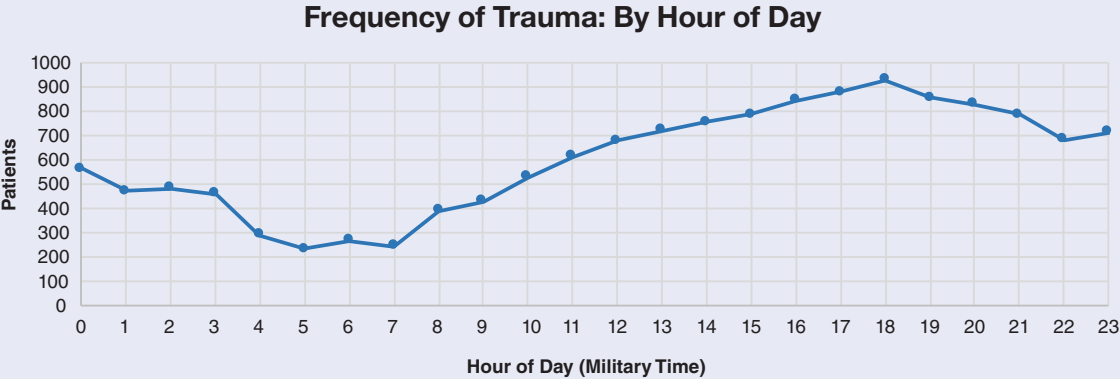


GSWs: Mortality Percentage by Year



FREQUENCY OF TRAUMA

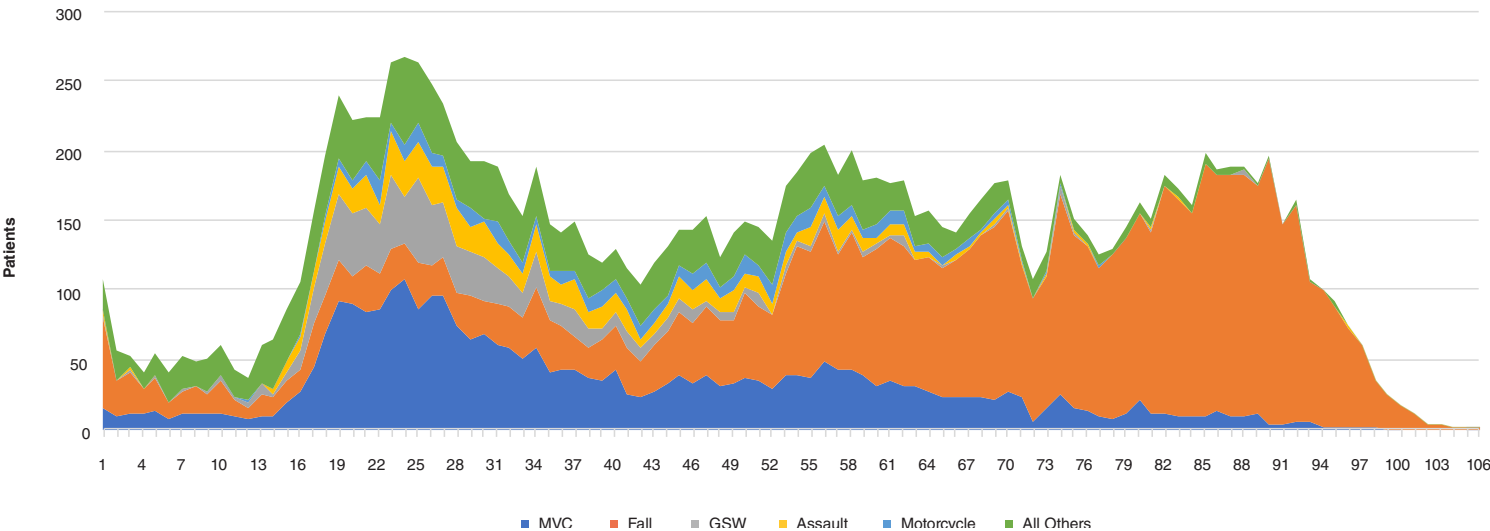
2016 DATA



MECHANISM OF INJURY

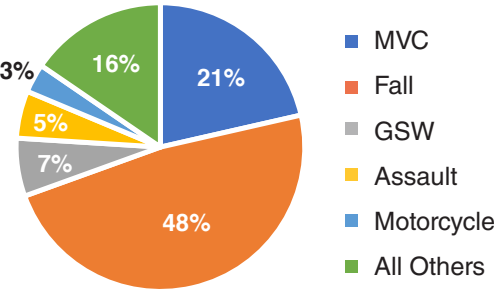
2016 DATA

Top Mechanisms of Injury by Age



Note: "All Others" include Asphyxiation, Hanging, MVC vs. Pedestrian, Bicycle, ATV, Horse & Rider, Stab, Drown, Watercraft, Bite, Sport, Burn, and all otherwise unclassified.

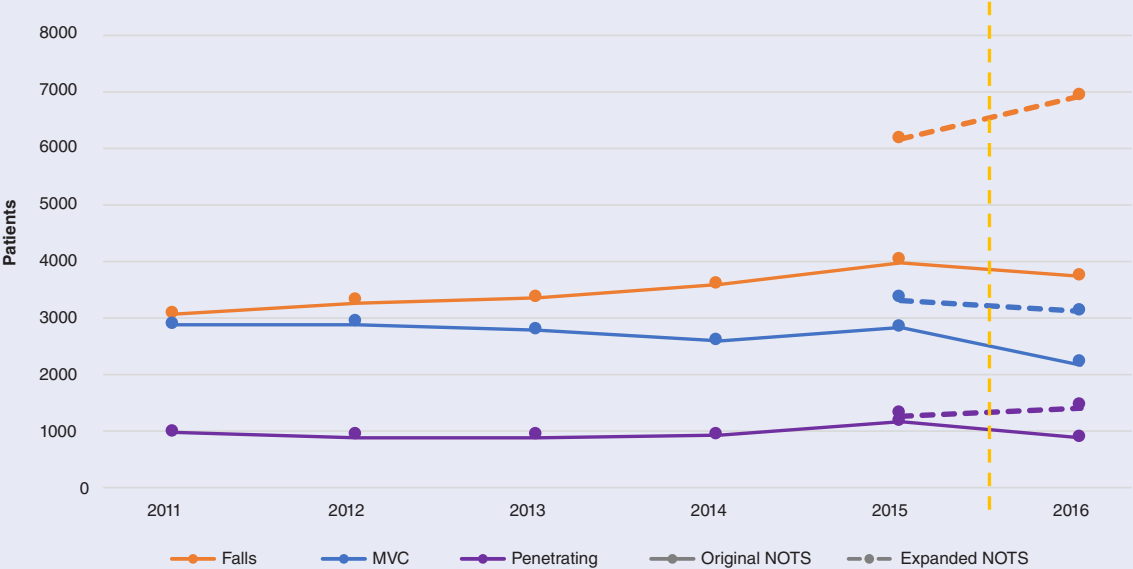
All Patients



Note: "All Others" include Asphyxiation, Hanging, MVC vs. Pedestrian, Bicycle, ATV, Horse & Rider, Stab, Drown, Watercraft, Bite, Sport, Burn, and all otherwise unclassified.



Top Mechanisms of Injury: By Year

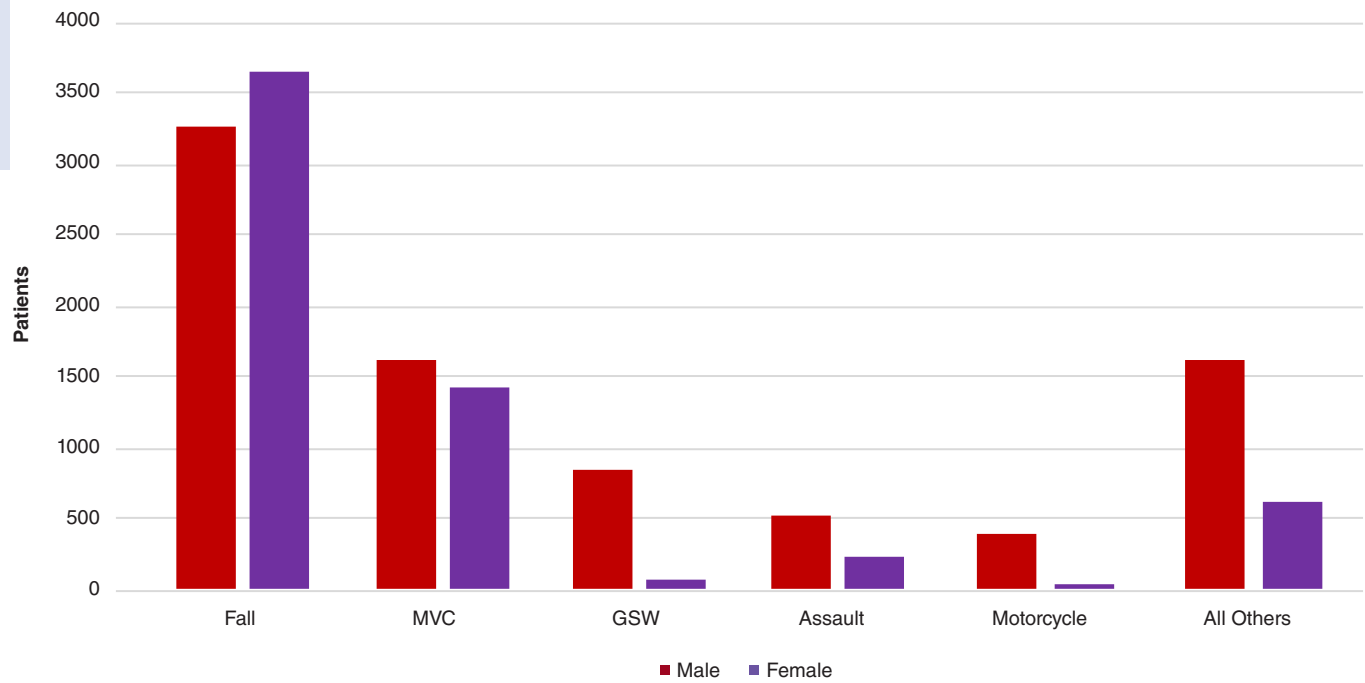


MECHANISM OF INJURY (CONTINUED)

2016 DATA



Mechanisms of Injury: By Gender



Mechanism of Injury by Age Group

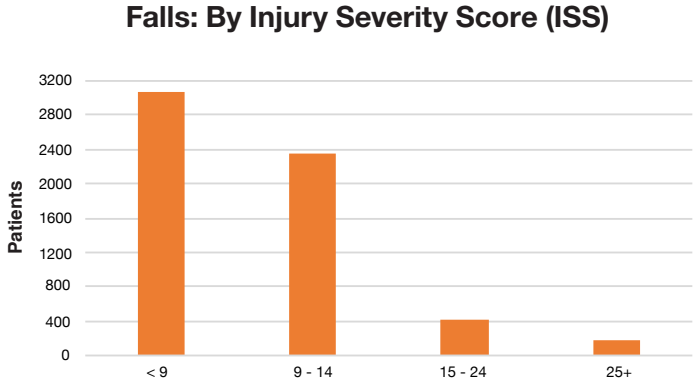
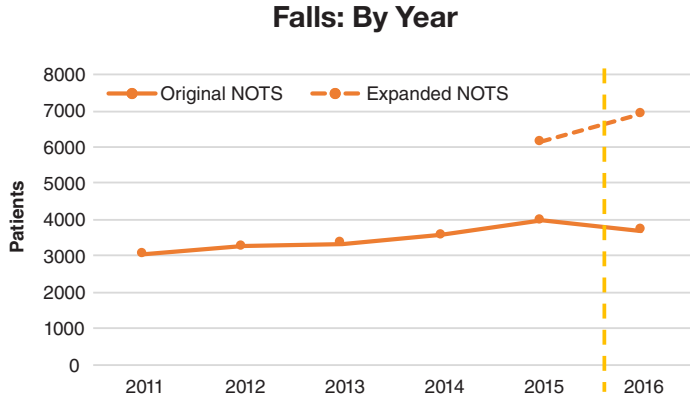
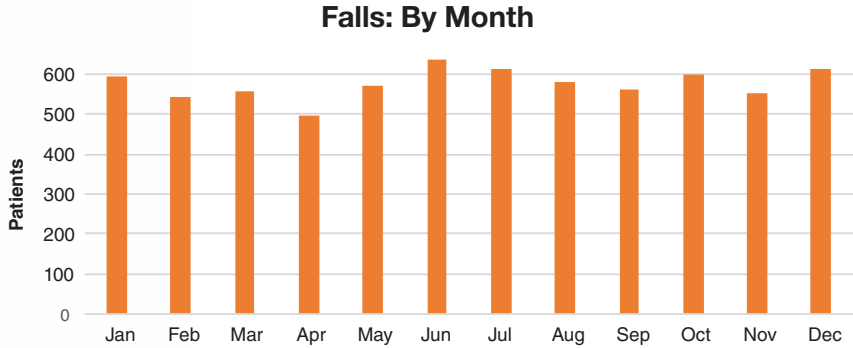
Mechanism	<15	15-20	21-40	41-65	66-80	>80	Total
MVC	168	409	1282	858	259	108	3084
Fall	318	156	579	1787	1745	2327	6912
Assault	17	100	397	229	19	3	765
Asphyxiation	0	0	6	0	0	0	6
Hanging	2	3	5	6	0	0	16
Motorcycle	3	26	181	227	26	3	466
MVC vs. Pedestrian	74	44	107	113	42	16	396
Bicycle	59	26	65	119	23	2	294
ATV	14	31	71	39	8	2	165
Horse & Rider	6	8	13	30	5	0	62
Other Blunt	57	26	120	156	31	16	406
Other Penetrating	14	16	75	64	16	6	191
Stab	3	25	163	70	3	1	265
Drown	4	0	1	1	0	0	6
GSW	36	209	544	127	15	5	936
Watercraft	0	3	1	2	2	0	8
Bite	5	2	11	18	2	0	38
Sport	36	38	26	15	6	1	122
Burn	19	3	32	37	11	2	104
Unknown	20	16	32	48	16	11	141
Totals	855	1141	3711	3946	2229	2503	14385

Mechanism of Injury by ISS Group

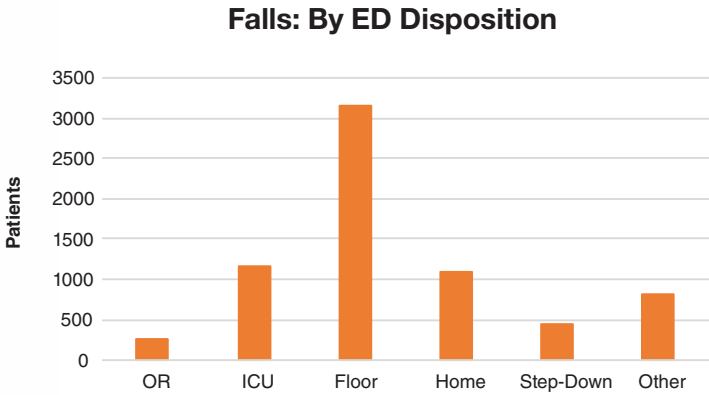
Mechanism	<9	9-14	15-24	25+
MVC	1425	438	208	99
Fall	2829	2209	420	178
Assault	342	125	33	11
Asphyxiation	0	3	0	0
Hanging	3	3	1	5
Motorcycle	196	102	52	38
MVC vs. Pedestrian	168	78	27	32
Bicycle	114	77	17	9
ATV	79	52	10	7
Horse & Rider	45	7	2	1
Other Blunt	238	65	22	5
Other Penetrating	158	8	0	1
Stab	158	35	12	7
Drown	0	2	0	3
GSW	338	234	80	136
Watercraft	4	3	0	1
Bite	26	2	0	1
Sport	59	27	4	0
Burn	52	4	2	3
Unknown	75	32	5	6
Totals	6309	3506	895	543

Note: Those without scored ISS are excluded from this chart.

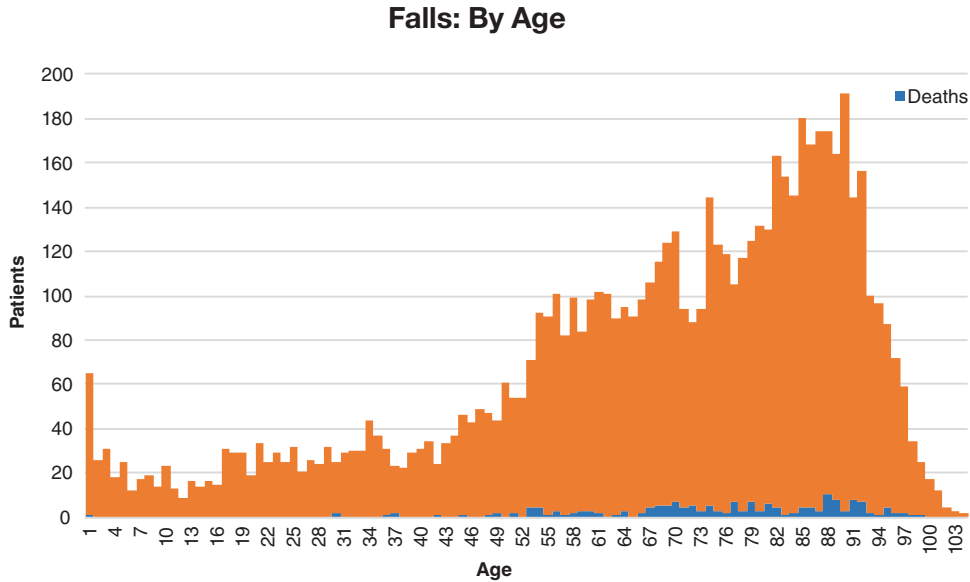




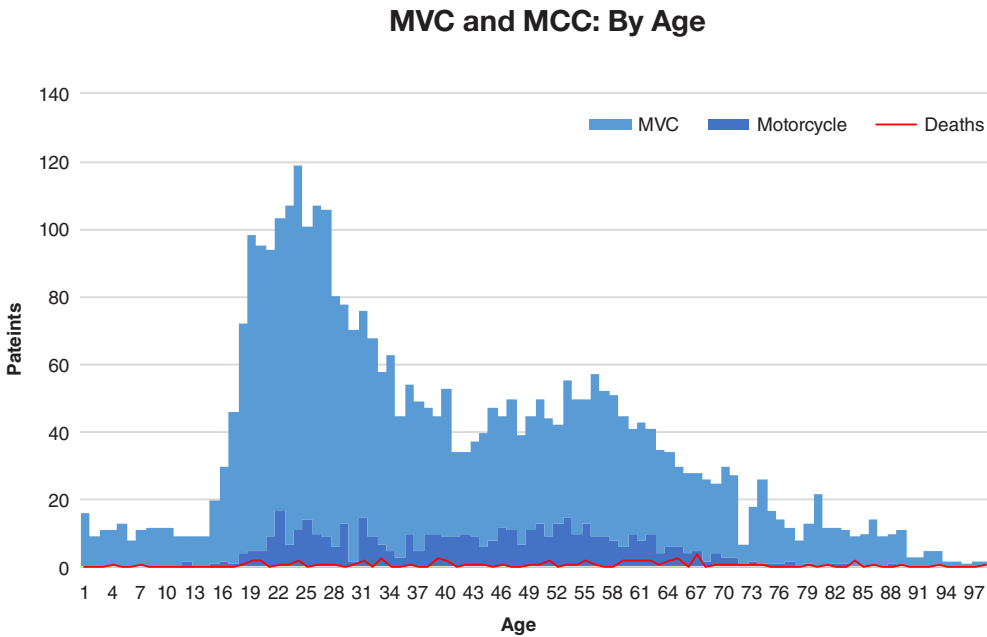
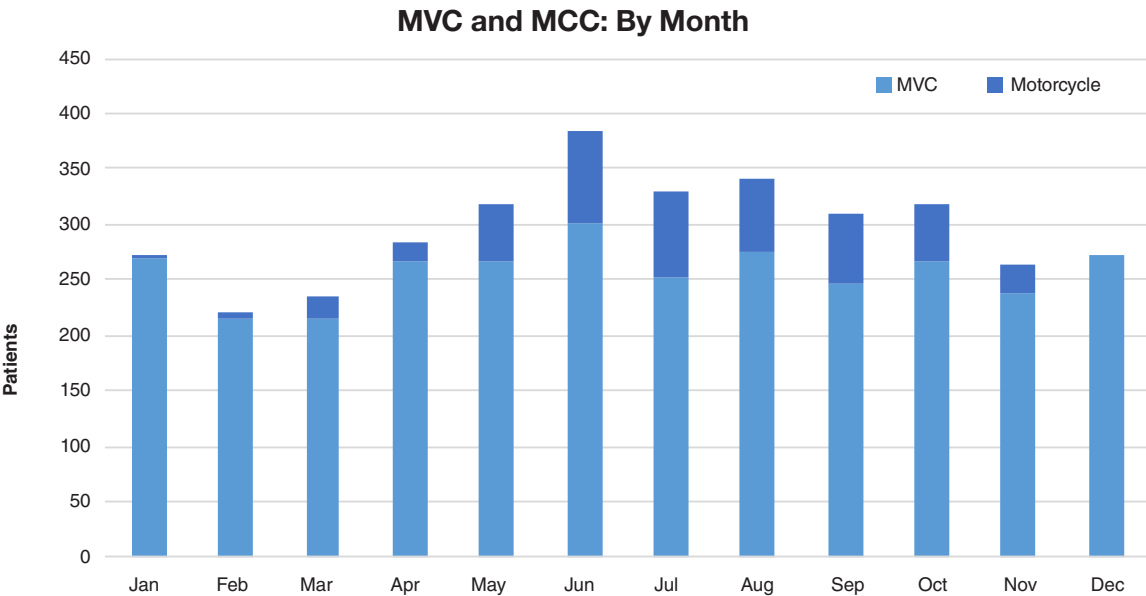
Note: Those without a scored ISS are excluded from this chart.



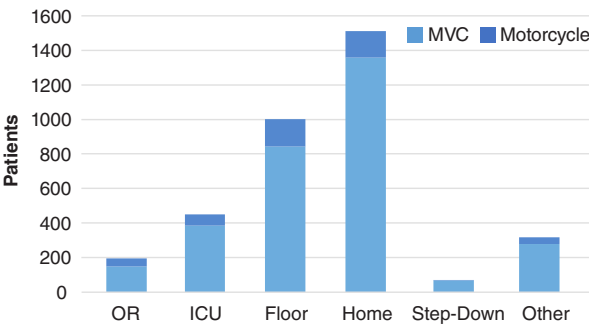
Note: "Step-Down" includes Step-Down Unit and Telemetry. "Other" includes Observation, Special Procedures, AMA, Correctional Facility, Morgue, Acute Care Facility, or another inpatient facility.



MOTOR VEHICLE AND MOTORCYCLE CRASH 2016 DATA

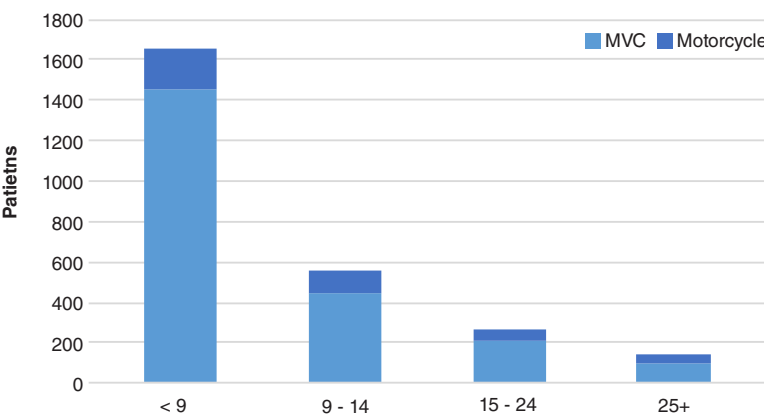


MVC and MCC: By ED Disposition



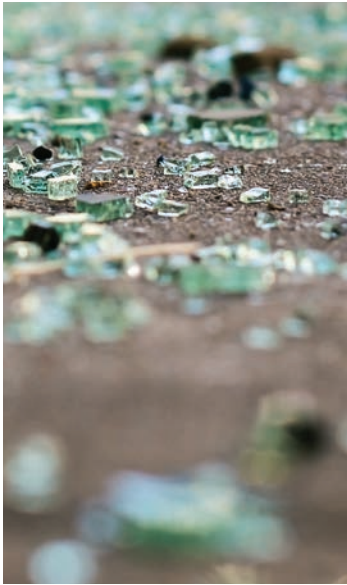
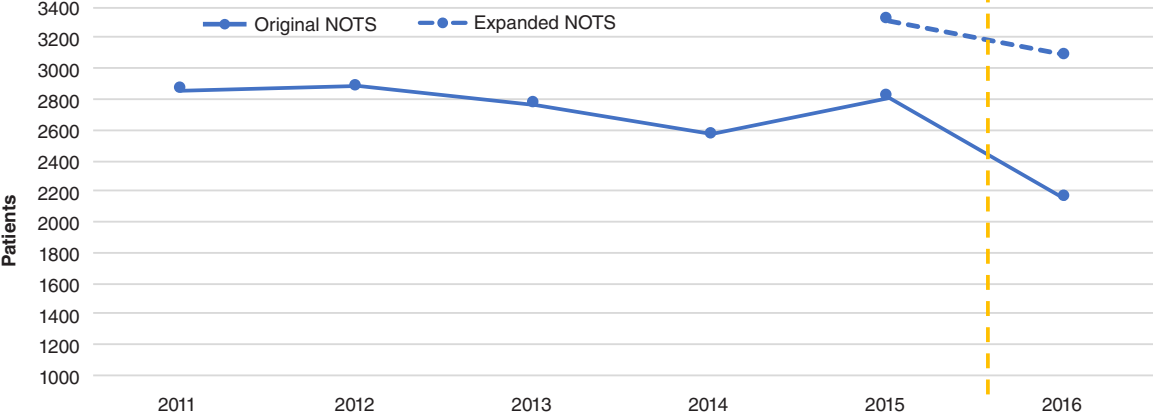
Note: "Other" includes Observation, Special Procedures, AMA, Correctional Facility, Morgue, Acute Care Facility, or another inpatient facility.

MVC and MCC: By Injury Severity Score (ISS)



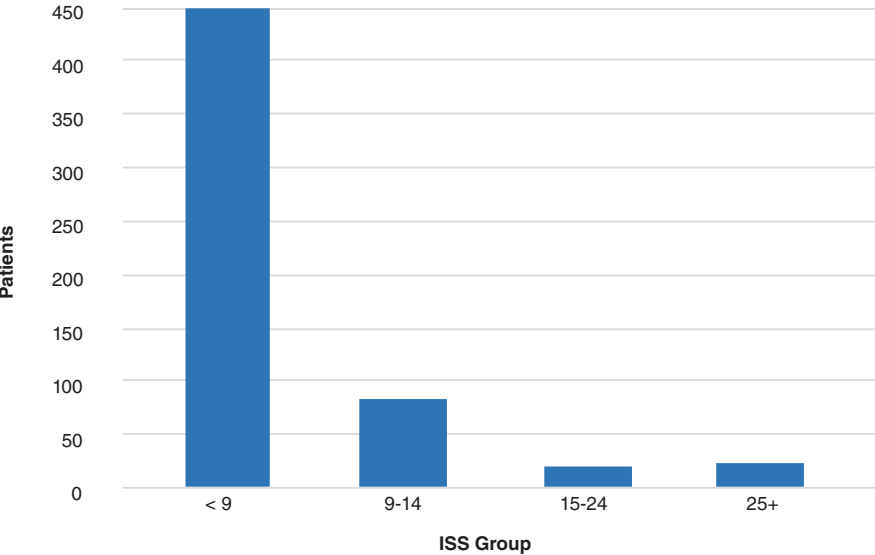
Note: Those without a scored ISS are excluded from this graph.

MVC and MCC: By Year

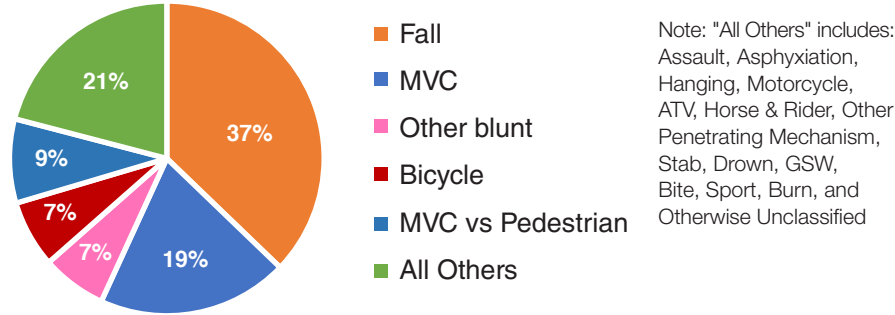


14 YEARS OF AGE
AND YOUNGER

Pediatric Trauma: By Injury Severity Score (ISS)



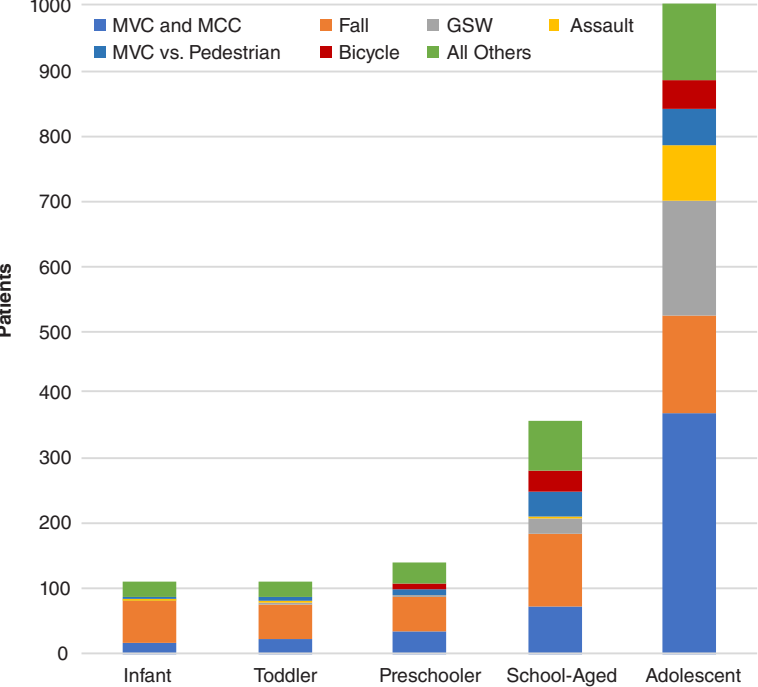
Pediatric Mechanism of Injury



Mechanism of Injury	Patients
MVC	168
Fall	318
Assault	17
Asphyxiation	0
Hanging	2
Motorcycle	3
MVC vs. Pedestrian	74
Bicycle	59
ATV	14
Horse & Rider	6
Other Blunt	57
Other Penetrating	14
Stab	3
Drown	4
GSW	36
Bite	5
Sport	36
Burn	19
Other	20
Total	855

19 YEARS OF AGE
AND YOUNGER

Pediatric Mechanism of Injury: By Age Group

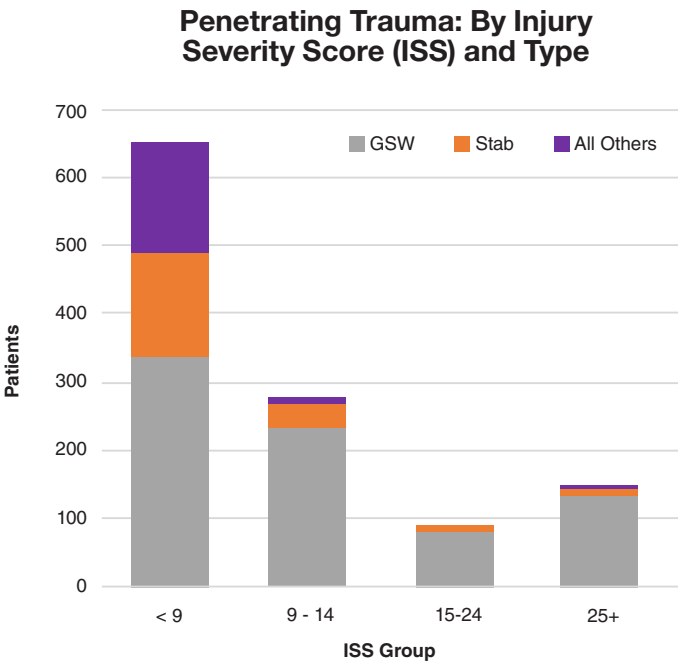
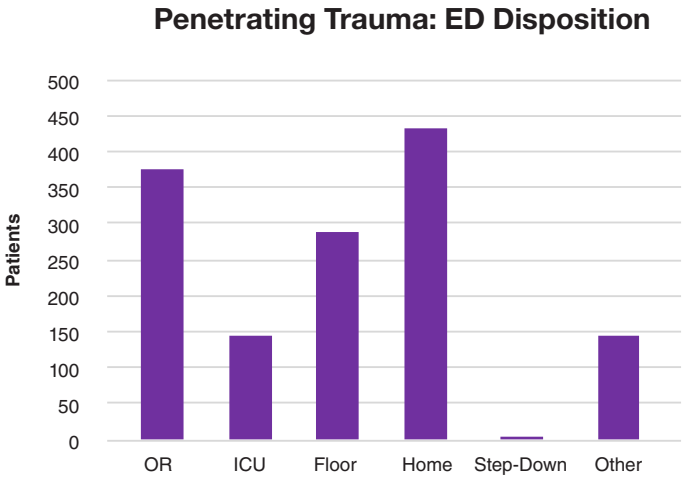
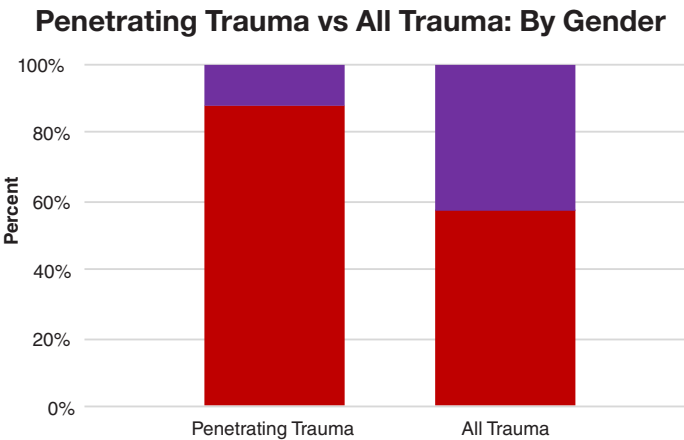
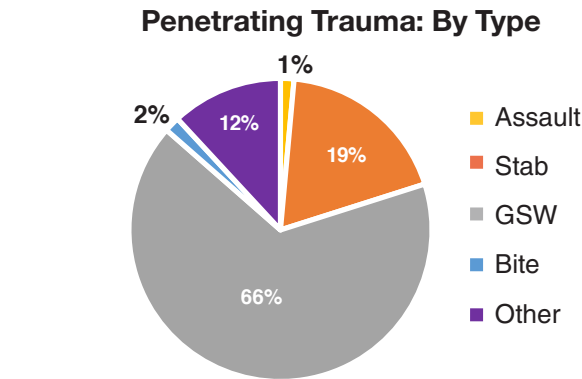
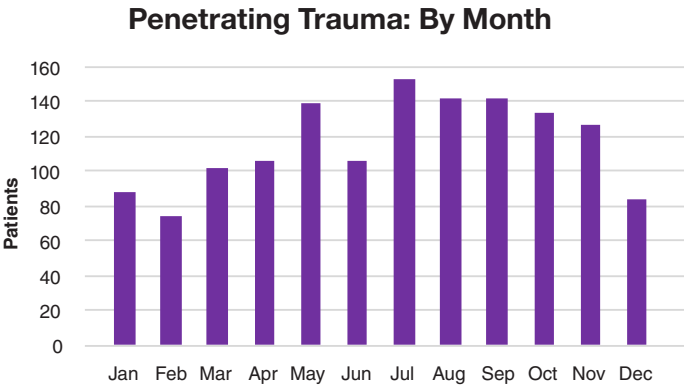


Pediatric Mechanism	Infant <1 year	Toddler 1-2 years	Preschooler 3-5 year	School-Aged 6-12 years	Adolescent 13 -19 years
MVC and MCC	16	20	32	74	370
Fall	65	57	55	111	153
GSW	2	3	2	20	177
Assault	3	1	0	3	86
MVC vs. Pedestrian	1	6	10	41	55
Bicycle	0	0	7	33	45
All Others	21	21	31	69	183
Total	108	108	137	351	1069



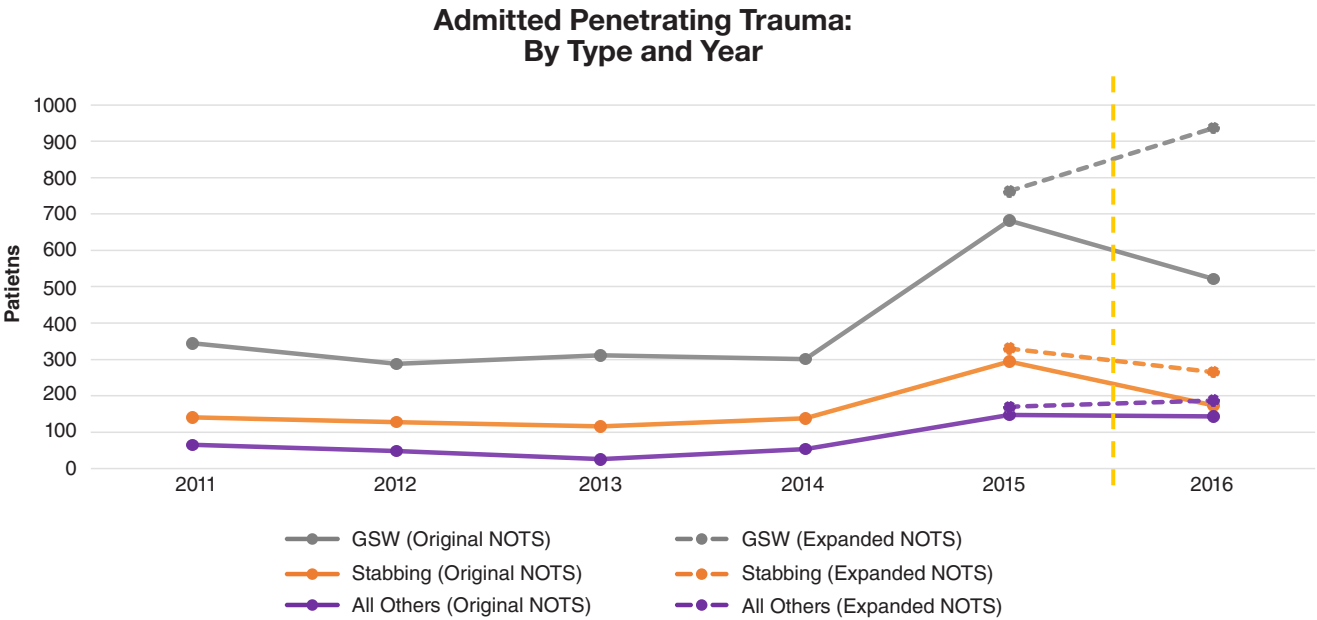
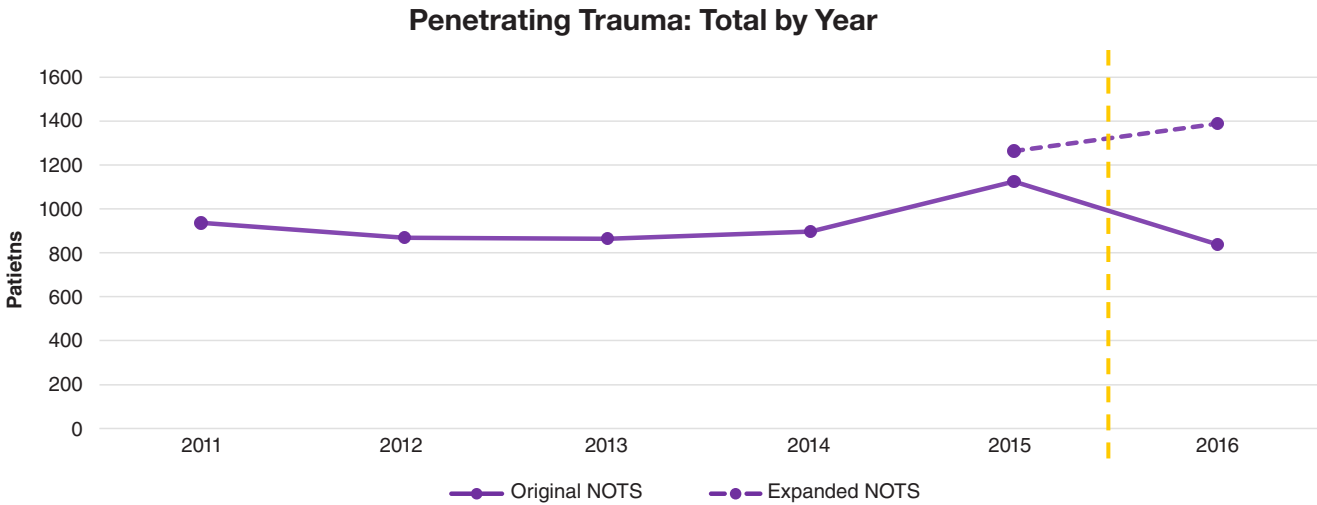
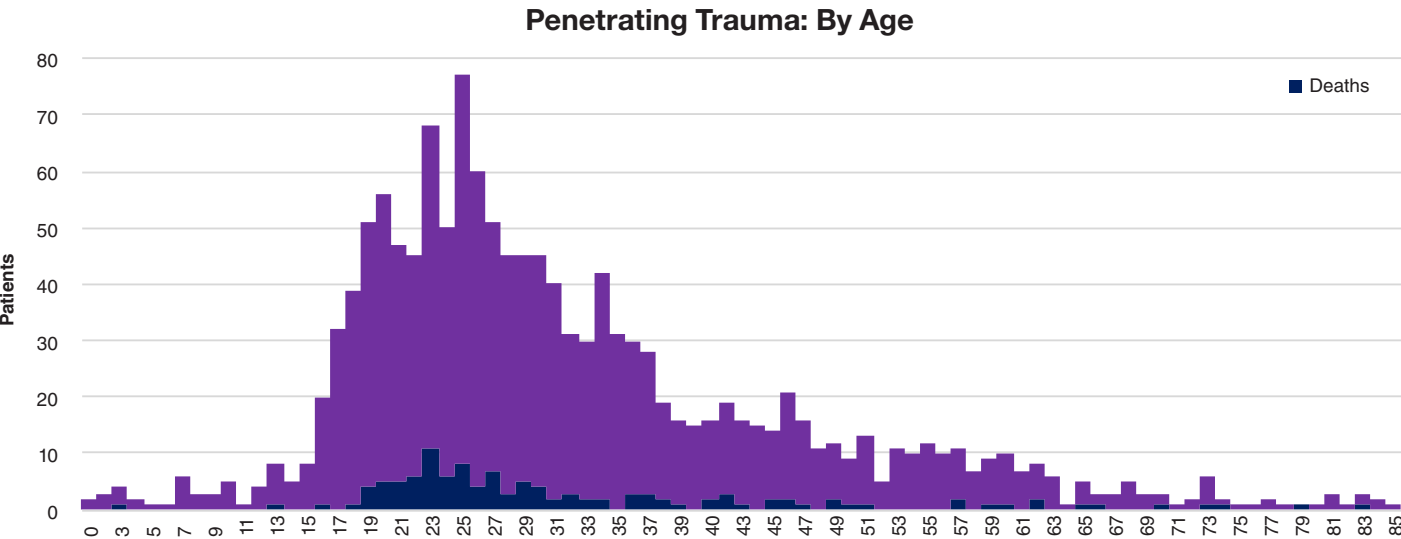
PENETRATING TRAUMA

2016 DATA



PENETRATING TRAUMA (CONTINUED)

2016 DATA

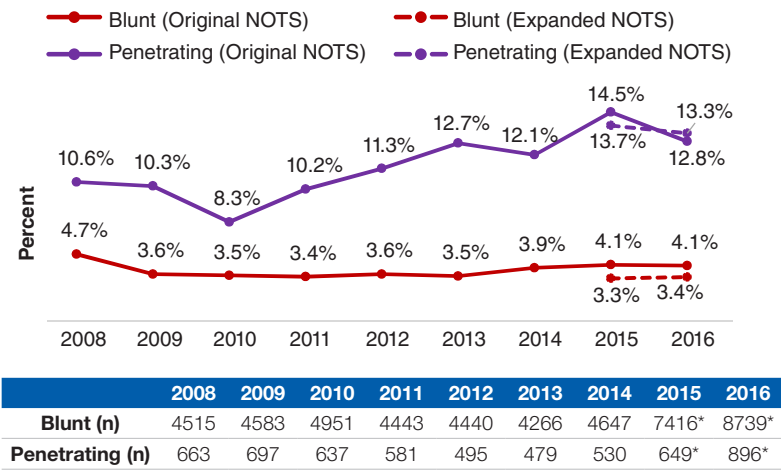


OUTCOMES ADMITTED PATIENTS

The figures on these pages show the trends of mortality in the NOTS region over time. The data is based on deaths both in the emergency room and following admission, and is separated based on blunt and penetrating injuries. Blunt injuries are mechanisms of injury such as falls or motor vehicle crashes. Penetrating injuries mainly include gunshot wounds or stabbings. Included are the number of patients (n) by each category for each year (***expanded NOTS counts are provided for 2015 and 2016**).

MORTALITY: ALL ADMITTED PATIENTS AND ED DEATHS

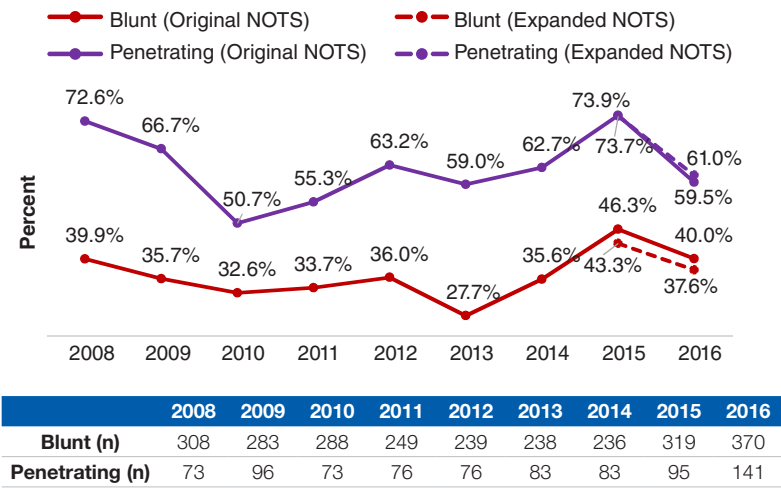
This first figure shows mortality over time for patients of all ISS scores. With the expansion of NOTS in 2016, the region saw 8,231 patients with blunt injuries and 855 patients with penetrating injuries. The mortality percentages are not adjusted for injury severity or any other factors. While overall counts of injuries went up in 2016, mortality percentage from penetrating injuries went down between 2015 and 2016 and mortality from blunt injuries remained the same.



MORTALITY: ADMITTED PATIENTS AND ED DEATHS WITH ISS OF 25+

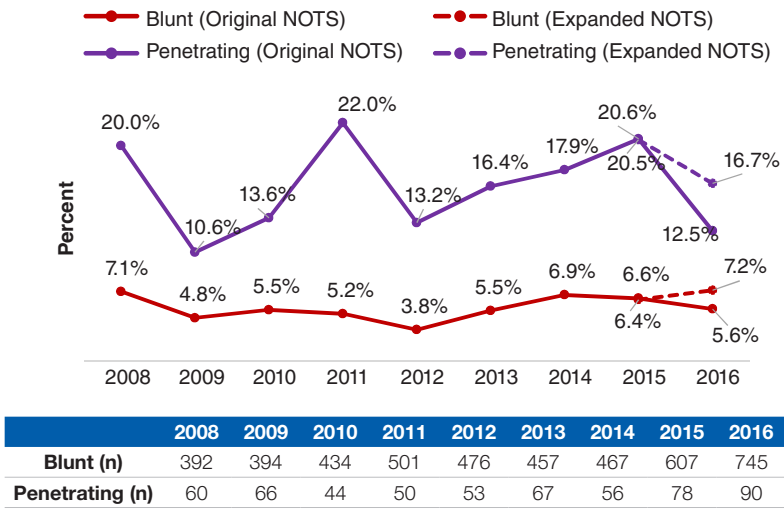
This figure represents the patients with the highest severity of injury, an Injury Severity Score (ISS) or 25 or higher. A large percentage of these patients have fatal injuries are not expected to survive. A historical rule of thumb is that roughly 50% of patients with an ISS \geq 25 don't survive. ISS can go as high as 75; thus the range for these patients is 25-75. This figure does not go in to detail beyond ISS > 25. Last year there was a consistent decrease in mortality in this group of patients. However, this is still much room for improvement, particularly through understanding how to better prevent very severe injuries, and how to better treat them when they do occur.

Likewise, part of the trauma surgeon's job is to respect family and patient wishes and recognize that it is our responsibility to allow people to die comfortably. At this time, we do not monitor how often we honor patient and family wishes to provide just comfort care and withhold life sustaining therapy.



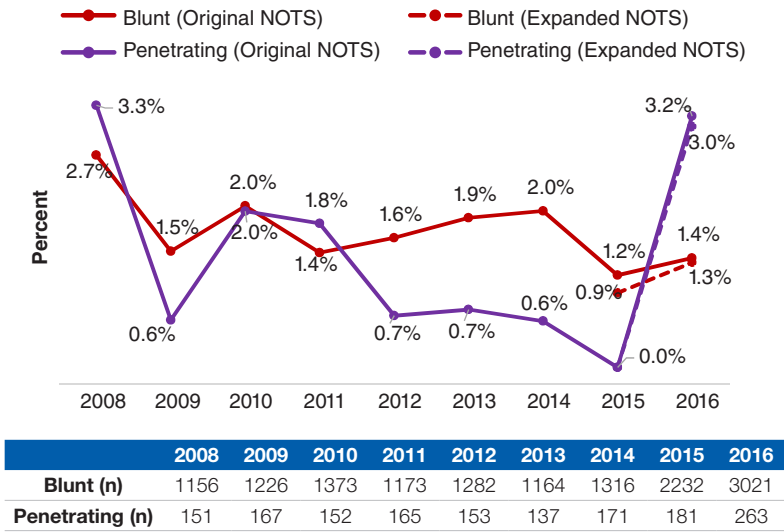
MORTALITY: ADMITTED PATIENTS AND ED DEATHS WITH ISS OF 15-24

This group represents patients with a moderate severity of injury. When NOTS started, our goal was specifically to improve the outcomes of this patient group. While we will never get this number to zero, doing so is still the goal that we strive for. The mortality for blunt injuries has remained about the same the past three years. Patients with penetrating injuries in this ISS group have improved greatly since 2015, going from 20.5% (20.6% in original NOTS trauma centers) to 14.3% (12.5% in original NOTS trauma centers).



MORTALITY: ADMITTED PATIENTS AND ED DEATHS WITH ISS OF 9-14

Patients with a minor ISS of 9-14 are numerous. In 2016, we saw a perplexing increase in deaths in this group which warrants further investigation. This could be a true increase in mortality (i.e. patients with existing comorbidities being less able to survive a minor traumatic injury), an erroneous increase (i.e. errors in data coding), or a combination of both. Furthermore, since there are so many patients in this group (n) and relatively few deaths, a single-digit increase in deaths results in a large jump in mortality percentage. Regardless, even a numerically small increase in mortality is too great in terms of human cost and is to be avoided to the greatest extent possible.



We would like to stress that we are sharing data in order to be transparent and highlight our successes as well as identify further opportunities for improvement. The most important thing to recognize is that while we talk about this as data, one must remember that we are talking about patients' lives. Every life matters and we would like to take a moment to humbly express out sympathy to all the families who have been affected by the loss of a loved one as a result of a traumatic injury.



RIGHT PATIENT.
RIGHT PLACE.
RIGHT TIME.

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NOTS 2016 Annual Report

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