

Trauma Care Advisory Council

Trauma Care in Tennessee

A Report to the 2010 107th General Assembly

Tennessee Department of Health

Trauma Care Advisory Council

November 8, 2010

AUTHORSHIP

Julie A. Dunn, M.D., M.S., FACS
Chair, Trauma Care Advisory Council and
The Tennessee Committee on Trauma
Professor of Surgery East Tennessee State

Blaine L. Enderson, M.D., MBA, FACS, FCCM
Vice Chair, Trauma Care Advisory Council
Professor of Surgery
Medical Director, Division of Trauma
University of Tennessee, Knoxville

Joseph Phillips
Director, State EMS
Tennessee Department of Health

Rob Seesholtz, RN, EMT-P
Trauma System Manager
Tennessee Department of Health

Ben Louis Zarzaur, M.D., MPH, FACS
Assistant Professor of Surgery
University of Tennessee Health Science Center

Rose Boyd
Injury Surveillance Prevention Control Program
Tennessee Department of Health

Oscar Guillamondegui, M.D., MPH, FACS
Assistant Professor of Surgery
Assistant Professor of Neurosurgical Sciences
Vanderbilt University Medical Center

Linda Booker
Statistical Analyst – Trauma Registrar
Tennessee Department of Health

Rhonda Phillippi, RN
Executive Director
TN Emergency Medical Services for Children

Stanley J Kurek, DO, FACS
Associate Professor of Surgery
Medical Director of Surgical Critical Care
Medical Director of Trauma
University of Tennessee Medical Center at Knoxville

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STATE OF TENNESSEE
DEPARTMENT OF HEALTH
BUREAU HEALTH LICENSURE AND REGULATION
TRAUMA CARE ADVISORY COUNCIL
HERITAGE PLACE, METRO CENTER
227 FRENCH LANDING, SUITE 303
NASHVILLE, TN 37243

November 08, 2010

Dear Members of the General Assembly,

As required by Tenn. Code Ann §68-59-103, we are pleased to submit our Annual Trauma Report. This report reflects activities and accomplishments of the Trauma Care Advisory Council (TCAC) and Tennessee's designated Trauma Hospitals.

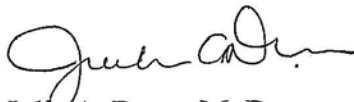
The Trauma Care Advisory Council was implemented in 1990 to advise the Board for Licensing Health Care Facilities and the Emergency Medical Services (EMS) Board in regards to regulatory standards to ensure the adequacy of statewide trauma care. Rule promulgation is guided by national standards; these rules ensure the adequacy of trauma care relative to:

1. Facility equipment standards;
2. Qualifications of facility personnel;
3. Continuing professional education of facility personnel;
4. Triage criteria; and
5. Patient care.

In 2007, the General Assembly enacted the Trauma Fund Law, providing valuable resources to support and maintain our vital Trauma System.

The data in this publication gives an overview of patients cared for in our designated Trauma Centers. With your continued support, the TCAC hopes to cast a broader net – to capture data for patients with traumatic injuries cared for in our entire state. Armed with this information, we can better define and shape our system in a way that meets the needs of ALL our citizens.

Respectfully Submitted,

 M.D., FACS

Julie A. Dunn, M. D.
Professor of Surgery
East Tennessee State University
Chair, Trauma Care Advisory Council
Chair, Tennessee Committee on Trauma

2010 EXECUTIVE SUMMARY

The Trauma Care Advisory Council (TCAC) was established in 1990 to advise the Board for Licensing Health Care Facilities (BLHCF) regarding trauma care policy and regulation. In the ensuing 20 years, the Tennessee Trauma System continues to evolve. When first instituted, the system boasted 11 trauma hospitals: 4 Level I centers (the highest level of care) and 7 Level II centers. Several Level III centers were later designated, bringing the total to 13. An erosion of these services has occurred over the last decade. Today, Tennessee has 6 Level I trauma centers, 1 Level II center, and 2 Level III centers. Fortunately, the 6 Level I centers are well-distributed geographically across the state such that all Tennessee citizens are within 100 air miles.

The Tennessee Trauma System continues to mature. The centers across the state provide more than just trauma care – they provide a safety net for those patients in the most dire need - 24 hours a day, 7 days a week, at the highest level available. Level I guidelines mandate that resources include fully staffed operating rooms, intensive care units, lab, blood bank, and radiological capabilities, and professional personnel in-house and available on a moments notice to care for the injured. This wide array of capability provides an additional benefit to their respective communities and regions - by also being available to care for patients with ruptured aneurysms, strokes, cardiac emergencies, and other time-limited, life-threatening emergencies at a moments notice.

This report provides information on geographic location and mechanisms of injury, referral patterns, and financial statistics. Information about key system components, such as Injury Prevention activities, System Funding, Registry Data Collection, and statewide research efforts, is also included. All of these essential components provide valuable information to the TCAC. Armed with this information, we can to improve patient outcomes and better serve the needs of our citizens.

In 2007, more than 20,000 patients were treated in our Trauma Centers. The overwhelming majority of these injuries were sustained as a result of blunt trauma: motor vehicle crashes and falls. Trauma disproportionately impacts our youth, robbing our society of productive person years. Sadly, many of these events were preventable.

This report speaks volumes about those centers dedicated to caring for the injured patient. Whether you live in one of our largest cities, or one of our smallest townships, Trauma Centers are on standby to provide the highest level of care. Trauma Centers save lives. A viable and robust Trauma System not only saves lives, but provides strict oversight and ensures continual improvement. With ongoing support we can continue with our mission of providing the highest level of care, injury prevention, education, and research to minimize the death and disability that occurs as a result of injury across the state of Tennessee

INJURY IN TENNESSEE

Injury is the leading cause of death and disability for all Tennesseans, ages 1-44, and the third leading cause of death for all age groups. In 2006, over 4500 Tennesseans died from injuries caused by motor vehicle collisions, falls, poisonings, fire/burns, suffocation, and drowning. During 2006, the national injury death rate was 58.74 per 100,000. That same year the national rate for injury hospitalizations was 553.52 per 100,000. When compared to the national rate, Tennessee's death rate for injury was 79.05 and its hospitalization rate for injury was 616.82 per 100,000. In both instances, Tennessee exceeded the national rates. The rate is also higher than the Healthy People 2010 targeted rate of 37.0 deaths per 100,000. **Figure 1** illustrates the national and Tennessee rates.

Injury death rates have remained fairly constant during the 20th century in the United States. In contrast, by 1980 death rates from diseases like tuberculosis and gastrointestinal disorders declined by 99 percent. Influenza and pneumonia have declined by 85 percent. And, infectious diseases have decreased. The decreased rates are a result of focused and targeted prevention efforts. During the same century however, injury death rates only declined by 30 percent. At the present time, injury is responsible for three times as many deaths as influenza and pneumonia combined. Every 2 hours in Tennessee, someone dies from an injury.

Injuries are predictable and can be prevented. There are typical strategies that can be used at different times during the actual injury - before, during and after the event (Haddon 1972). Pre - event strategies keep the injury event from occurring in the first place while injury event strategies work to reduce the impact of the actual event as it occurs. Lastly post-event strategies rely on the environment to further reduce and impact the injury event. Examples of each include the following:

Pre-event: One of the greatest impacts of pre-event strategies is to prevent injury by passing legislation that influences public policy. In 1978, Tennessee was the first state in the nation to pass lifesaving legislation mandating the use of child car seats. The impact of this legislation and others which includes primary seat belt legislation, graduated teen drivers license, required use of a helmet while riding a motorcycle and the ban on text-messaging are expected to save many more lives throughout the state. The design of roadways is also an important pre-event strategy to prevent motor vehicle crashes.

Injury Event: Fire Escape Plan – Home escape and evacuation when the fire starts. Vehicles that include safety options such as frontal and side air bags will lessen the level of injury during the event.

Post-event: Fire and EMS provide a quick response to the event with the necessary equipment and supplies on operational emergency vehicles to provide transportation to a health care facility

INJURY PREVENTION

Injuries are a serious public health problem in Tennessee. Overall, Tennessee has the 11th highest death rate from injury in the United States. More alarmingly, Tennessee has the second highest homicide rate for young adults (ages 10-24) in the United States and the fifth highest mortality rate for traffic injuries among persons aged 65 and older in the United States. Unintentional injuries (e.g., motor vehicle crashes, falls, drowning, etc.) are the leading cause of death for Tennesseans 1 to 44 years (Source: STAT Report 2010).

Among all causes of death, injuries were the leading cause of premature death from 2003 to 2007 among Tennessee residents younger than 65 years, accounting for nearly 500,000 years of potential life lost. The leading cause of injury deaths in Tennessee are: 1) motor vehicle crashes, 2) suicide, 3) unintentional poisoning, 4) homicide and 5) falls. In addition, in 2008 there were nearly 40,000 persons in Tennessee hospitalized for an injury. The leading causes of these hospitalizations were 1) falls, 2) motor vehicle crashes and 3) poisonings. Hospital visits (inpatient and outpatient), due to injury resulted in charges of a staggering \$2.1 billion in 2007.

To address this important public health problem, in 2005 the State of Tennessee, Department of Health – EMS Division applied for and received a 5-year grant from the Center for Disease Control - Office of Injury Response. Currently, the grant is in its final year. As part of the grant, the Injury Surveillance, Prevention and Control Program (ISPCP) was established and a team of injury prevention experts and advocates were assembled from across the state to form the Commissioner's Council on Injury Prevention and Control (CCIPC). The role of the council is to assist in the production of a Tennessee Injury Surveillance, Prevention and Control Strategic Plan that identifies priority injuries, builds capacity for interventions, implements and evaluates programs, and seeks to support policies that prevent injuries and deaths from injuries. Further, the CCIPC serves as a clearing house to provide support and research in the determination of evidence based initiatives as well as monitoring the successful completion of strategic goals and strategies. Because Tennessee Trauma Centers are at the forefront of the care of the injured person, the Tennessee Trauma Care Advisory Council and the Tennessee Committee on Trauma have been working collaboratively with the CCIPC to develop and implement multilevel strategies for the prevention of injuries to fulfill a necessary requirement associated with being a designated trauma center in Tennessee.

Using recommendations from Safe States Alliance, for an ideal injury prevention program, the Injury Surveillance, Prevention and Control Program activities include the following activities. 1) Collect and analyze data; 2) Research, design and implement interventions at multiple levels; 3) Build capacity and a solid infrastructure for implementation of injury prevention initiatives; 4) Provide technical support and training; and 5) Evaluate the effectiveness of strategies.

- 1) **Collect and analyze data:** Analysis on injury data reveals that Tennessee rates for injury and deaths from injury exceed national injury rates (2002-2006). On the average from 2002-2007, the number of Tennessee residents who die daily in Tennessee from an injury is 12-13. During the same 24 hours, there are 52 admissions to trauma centers, 104 hospital admissions, and 676 visits to the emergency room due to injury. Treatment for

these injuries averages almost \$64,000 for a motor vehicle collision, \$62,000 for a fire/burn, \$28,000 for a fall and \$14,000 for treatment of a poisoning.

- 2) **Design and implement interventions at multiple levels:** Injury prevention initiatives targeting high risk populations will be implemented throughout the state. These efforts will be collaborative to increase impact, share resources and reduce costs.
- 3) **Building a solid infrastructure for injury prevention:** The Department of Health is working to integrate injury prevention initiatives within the current services that they provide. Underlying health conditions and interactions of medications can impair and contribute to falls, motor vehicle collisions, and other injuries.
- 4) **Provide technical support and training:** The CCIPC sponsors an annual injury prevention symposium on a topic related to injury prevention. Other injury education opportunities provided by the ISIPCP include the training of Matter of Balance Master Trainers and Coaches. Additionally, the ISIPCP coordinator provides technical support to develop programs and training related to injury prevention.
- 5) **Evaluate the effectiveness of injury prevention strategies:** Partnerships associated with the CCIPC have enabled evaluation support to determine the effectiveness of program implementation efforts. University support is provided by Vanderbilt Graduate School of Nursing, Tennessee State University, Belmont University and Vanderbilt Peabody.

The ultimate goal is to reduce the burden of injury on all Tennesseans by working to prevent injuries before they occur. The simple matrix below provides a comparison between approaches to prevent disease and those utilized to prevent injury. As a result of these commonly used approaches, diseases like polio and TB have almost been eradicated. However, injury prevention continues to be a low priority. **Being proactive is the key. Injuries are not “accidents”. They are not only predictable, they are preventable.** Knowing what to do, and how to prevent injury, like disease, will not only minimize treatment costs but ensure that everyone in Tennessee lives to their highest potential.

Pre- Event	Event	Post-Event	Gov’t /Media Response
Illness: Education on methods to reduce Swine Flu: Cough into sleeve. Wash hands. Inoculation for the illness	Keep exposed children home from school to avoid further spread of the illness. Intake of fluids and medication to minimize symptoms	Monitor the progress of child or infected person. Take to the physician or hospital if needed.	Funding to support prevention of the illness: inoculation development, production of materials to create awareness. Strong Media involvement
Injury: Provide education on the prevention of the number cause of death for children- Motor Vehicle Collisions. No requirement to provide education at schools	Child is wearing seatbelt minimizing their risk of injury and death	Emergency response teams arrive on the scene early and work to get injured persons to closest trauma center where highly trained medical teams can begin life saving treatment/surgeries.	Note: The government provides little funding to support education and resources needed to create awareness. The media response is to report only deaths and they are always referred to as “accidents”.

PEDIATRIC TRAUMA CARE

The state legislature unanimously passed the TN EMSC (Emergency Medical Services for Children) legislation in 1998 and revised in 2007 creating a standing committee on pediatric emergency care (CoPEC) which reports directly to both the Board for Licensing Health Care Facilities (BLHCF) and the Emergency Medical Services Board (EMSB). Tennessee Code Annotated 68-11-251 and 68-140-521. (<http://state.tn.us/sos/acts/105/pub/pc0599.pdf>). These laws also mandated minimum preparedness for pre-hospital and hospital emergency departments and requiring both a medical and trauma hospital recognition system. The rules and regulations that established this trauma and medical system also mandated written pediatric inter-facility guidelines and agreements for every hospital with an emergency room in TN.

In response to the legislation and CoPEC recommendations, the BLHCF and EMS Boards have promulgated rules and regulations to ensure compliance with the law. These rules include a requirement to promote a family focused approach to the care of the child, including children with special healthcare needs, as well as accounting for ethnic diversity. The rules include specific pediatric equipment, drugs, and education for physicians, nurses, and pre-hospital providers to care for both the child injured by trauma and medical diseases.

CoPEC holds primary responsibility for the pediatric trauma system and interfaces with the Trauma Care Advisory Council by having pediatric representation from CoPEC as members of TCAC.

Below is a small sample of the data that will be forthcoming in the **Tennessee Injury Surveillance, Prevention and Control Strategic Plan 2010-2014** a collaboration between TCAC and CoPEC in the Tennessee Department of Health, Division of Emergency Medical Services and the Bureau of Licensure and Regulation.

Data for unintentional injury deaths for children, youth and teens, ages 1-18 during the year 2007 in Tennessee.

Facts about Injury in Children, Ages 1-4, in 2007

1. The number one causes of death from unintentional injury are Drowning and Motor Vehicle Collisions
2. Fires and Suffocation are the second cause of unintentional injury deaths.
3. The third leading cause of death from injury is a result of pedestrian traffic.

Facts about Injury in Children, Ages 5-14, in 2007

1. The number one cause of death from unintentional injury was from motor vehicle collisions.
2. The number two cause of death from unintentional injury was from fires/burns.

Facts about Injury in Teens, Ages 15-18, in 2007

1. The leading cause of death from unintentional injury in 2007 was due to motor vehicle collisions. It is seven times greater than the second leading cause of injury death for this group.

2. This age group also experienced injury deaths associated with unintentional poisonings.
3. Drowning, fire/burns, and ATV collisions were the third, fourth and fifth causes of injury deaths associated with teens, ages 15-18.

CoPEC is in the final stages of a three year strategic planning process and will be providing an update in the annual report in July 2010 regarding the current status of emergency medical services for children.

TRAUMA CENTER FUNDING

With the passage of the Tennessee Trauma Center Funding Law of 2007, the Trauma Care Advisory Council was charged with developing recommendations on how to distribute Trauma System Fund reserves. In keeping with the intent of the new statute, three broad categories for disbursement were identified:

1. Money to support the **trauma system infrastructure** at the state level.
2. **Readiness costs** to designated trauma centers and comprehensive regional pediatric centers.
3. Money for **uncompensated care**.

Trauma System Infrastructure \$150,000

Once administratively able to establish the Adult and Pediatric Trauma Coordinator positions provided by the bill's fiscal note, we are certain they will prove to be a valuable resource in overseeing the fund, overseeing the trauma registry, ensuring optimal and equitable care, and ensuring quality of care throughout the system.

Readiness Costs \$3,340,000

Readiness costs vary from approximately \$7-14 million annually for each Level I Trauma Center and there are significant costs for Level II and III facilities as well. While the fund cannot realistically compensate centers for these costs, certain key elements must be in place to ensure state designation is maintained. The most basic of trauma staffing requirements were used to establish a baseline readiness cost for each center. Amounts designated for each center may be found in **appendix III**.

Uncompensated Care Methodology ~ \$5,746,800

The new law provides for uncompensated care funding to be distributed to: 1) designated trauma centers 2) regional pediatric centers and 3) other acute care hospitals functioning as a part of the trauma system. Actual hospital claims data was selected by the committee to determine the levels of trauma care provided by each center/hospital and the uncompensated costs related to that care.

While designated trauma centers and regional pediatric centers are automatically eligible for participation in this portion of the fund, not all acute care hospitals are. Criteria used to determine which hospitals "function as a part of the trauma system", include: 1) Utilization - the percentage of all claims that are trauma related and 2) Acuity – the acuity of the trauma injuries seen by a hospital. Acute care hospitals, which prove to have a

utilization rate and acuity equal to or greater than the minimum utilization and acuity rates of the designated centers, are eligible for participation in the pool.

Distribution to eligible hospitals is based on: 1) the level of funding within the reserve account following infrastructure and readiness costs and 2) the documented level of each hospital's uncompensated trauma cost. Though this amount will vary from year to year, at the end of 2008 this portion of the fund was approximately \$5,746,822. **Appendix III** shows the payments made to eligible hospitals.

TRAUMA REGISTRY 2007

The Tennessee Trauma Registry is the centralized database for collection of information regarding trauma injuries experienced by the 9 participating trauma centers and the 4 comprehensive regional pediatric centers. 2007 was the first year in which submissions were made for the entire year, and the following report contains the 2007 information.

Trauma Registry Profile

Total Submissions: 20792

Number of Adult Facilities: 9

Number of Pediatric Facilities 4

(**Note – submissions for Vanderbilt Children's Hospital were included in the file with Vanderbilt Medical Center (adult facility); therefore, the children's hospital submissions will not appear as a separate entity in this report.) **Appendix 1** illustrates the Trauma Registry Contributors by county location and trauma center level.

Trauma Registry, Injury Prevention and Injury Surveillance System

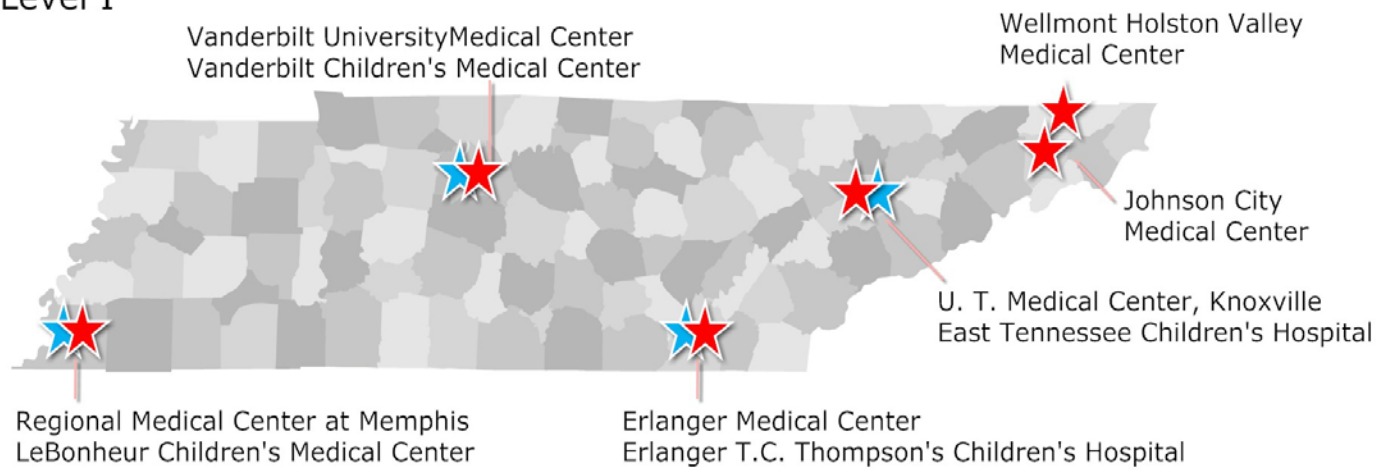
The TN Department of Health, EMS Division performs Injury Prevention analysis of Tennessee injuries based on Hospital Discharge data for all hospitals in the State as well as ER and Vital Records. The Trauma Registry serves as a source of information that is not provided in these three sources.

RESEARCH

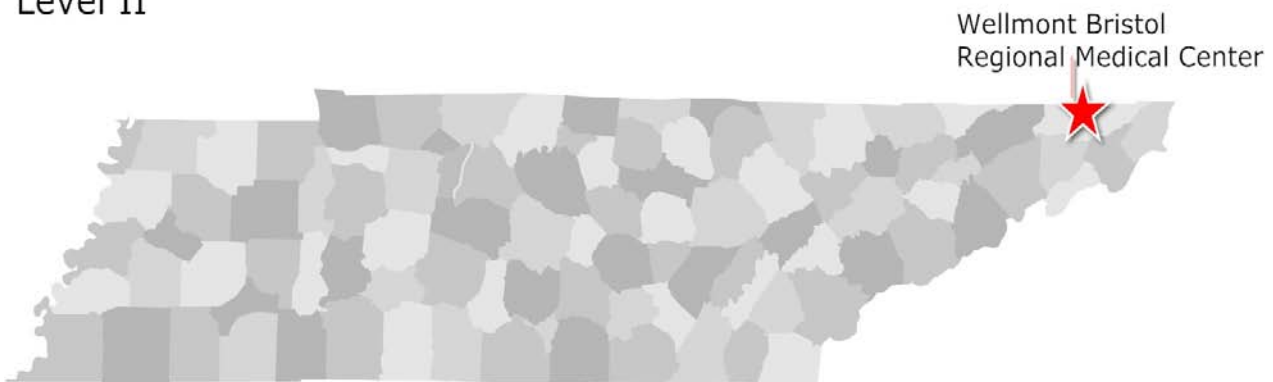
Level 1 Trauma Centers are charged with performing research. These endeavors spur improvements in care on an ongoing basis. **Appendix IV** represents just a sample of state wide research publication efforts.

Appendix I: Trauma Center Location & Level Designation

Level I



Level II



Level III

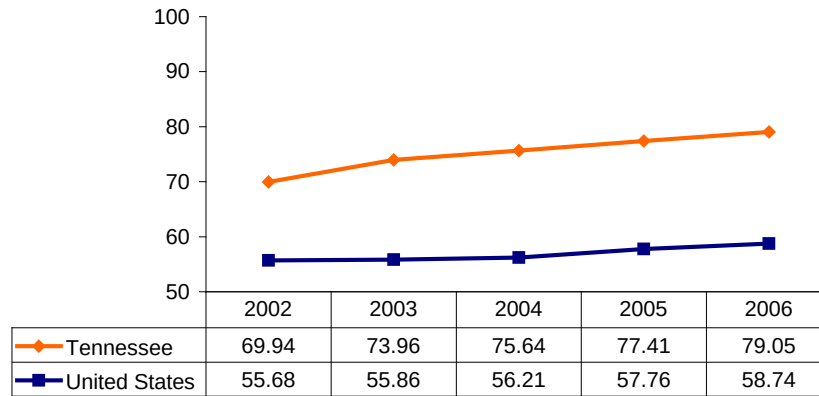


Appendix II: Trauma Registry Reports

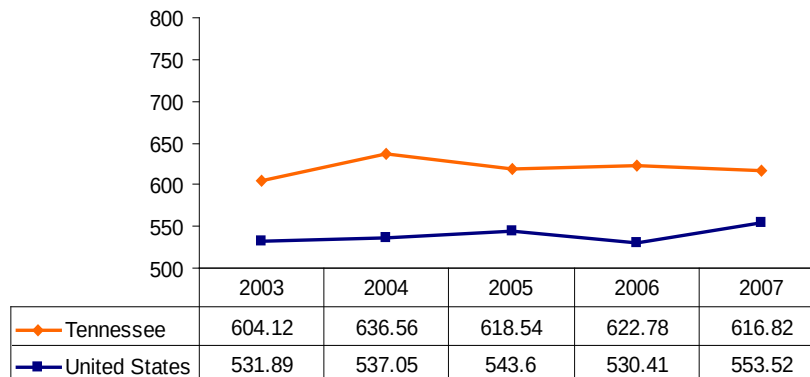
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Figure 1:

**Tennessee Compared to The United States
Injury Death Rates Per 100,000
2002 - 2006**



**Tennessee Compared to The United States
Injury Hospitalization Rates Per 100,000 (Crude Rates)
2003 - 2007**



**Source: Tennessee Department of Health, Division of Health Statistics (Hospital Discharge Data)
WISQARS-CDC Injury Center
Produced by: Tennessee Department of Health, EMS & Division of Health Care Facilities**

Tennessee Trauma Registry by County Admissions 2007

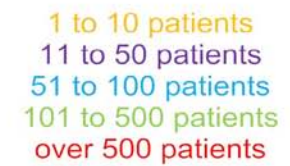


Figure 3:
Incidents by County Residency

Patient County	Population	Incident Totals
Anderson	73,667	167
Bedford	41,641	70
Benton	16,453	17
Bledsoe	13,119	56
Blount	119,478	340
Bradley	94,415	172
Campbell	41,009	126
Cannon	13,535	28
Carroll	29,221	25
Carter	59,262	324
Cheatham	39,505	73
Chester	16,118	9
Claiborne	31,530	134
Clay	8,077	9
Cocke	35,476	152
Coffee	52,112	86
Crockett	14,513	15
Cumberland	52,913	68
Davidson	852,518	770
Decatur	11,430	14
DeKalb	18,530	38
Dickson	47,054	87
Dyer	38,057	74
Fayette	36,558	82
Fentress	17,592	44
Franklin	41,604	76
Gibson	48,552	45
Giles	29,376	38
Grainger	22,676	90
Greene	66,285	229
Grundy	14,552	36
Hamblen	61,424	177
Hamilton	313,194	895
Hancock	6,754	54
Hardeman	28,492	46
Hardin	26,224	48
Hawkins	57,296	328
Haywood	19,647	42
Henderson	26,922	27
Henry	31,872	49
Hickman	24,205	51
Houston	8,127	10
Humphreys	18,510	35
Jackson	10,993	11
Jefferson	50,752	147
Johnson	18,172	87
Knox	414,786	1211
Lake	7,430	9

Patient County	Population	Incident Totals
Lauderdale	27,014	56
Lawrence	41,235	56
Lewis	11,712	23
Lincoln	32,965	28
Loudon	44,976	135
Macon	21,965	39
Madison	96,674	47
Marion	28,023	161
Marshall	29,195	42
Mauzy	79,218	81
McMinn	52,460	276
McNairy	25,804	39
Meigs	11,815	90
Monroe	44,694	177
Montgomery	149,016	155
Moore	6,100	5
Morgan	20,259	88
Obion	32,272	27
Overton	10,150	28
Perry	7,681	21
Pickett	4,887	3
Polk	15,968	45
Putnam	68,947	106
Rhea	30,551	95
Roane	53,488	155
Robertson	63,170	119
Rutherford	233,363	176
Scott	22,154	60
Sequatchie	13,159	43
Sevier	82,600	352
Shelby	917,343	2801
Smith	18,993	34
Stewart	13,217	28
Sullivan	153,368	960
Sumner	151,521	154
Tipton	58,261	120
Trousdale	7,890	14
Unicoi	17,790	98
Union	19,387	63
Van Buren	5,449	9
Warren	40,379	80
Washington	115,117	672
Wayne	16,946	21
Weakley	33,451	34
White	24,641	56
Williamson	164,507	148
Wilson	107,463	122
Grand Total	6,348,716	14,863

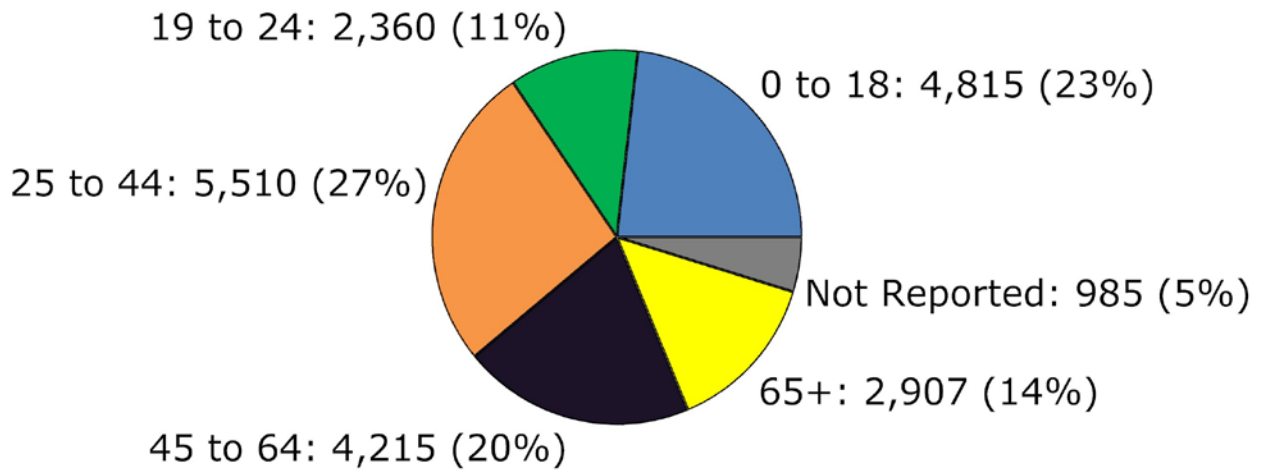
Total admits = 20,792; non-resident admissions = 5,097

Figure 4:
Trauma Registry Admits by Facility

Hospital Name	Admits
Athens Regional Medical Center	185
Blount Medical Center	562
East Tennessee Children's Hospital	355
Erlanger Medical Center	2992
Erlanger T. C. Thompson's Children's Hospital	94
Johnson City Medical Center	1783
LeBonheur Medical Center	1146
Regional Medical Center at Memphis	3883
U. T. Medical Center, Knoxville	3585
Vanderbilt Medical Center	3422
Wellmont Bristol Regional Medical Center	1090
Wellmont Holston Valley Medical Center	<u>1695</u>
Total:	20792

Figure 5:

Trauma Registry Admits by Age Group and Percentage



Age Group	Admits	Average Age of Group
0 to 18	4815	10
19 to 24	2360	20
25 to 44	5510	31
45 to 64	4215	47
65+	2907	60
Not Available	985	Not Reported

Figure 6a:

Trauma Registry Admits by Race and Percentage - 2007

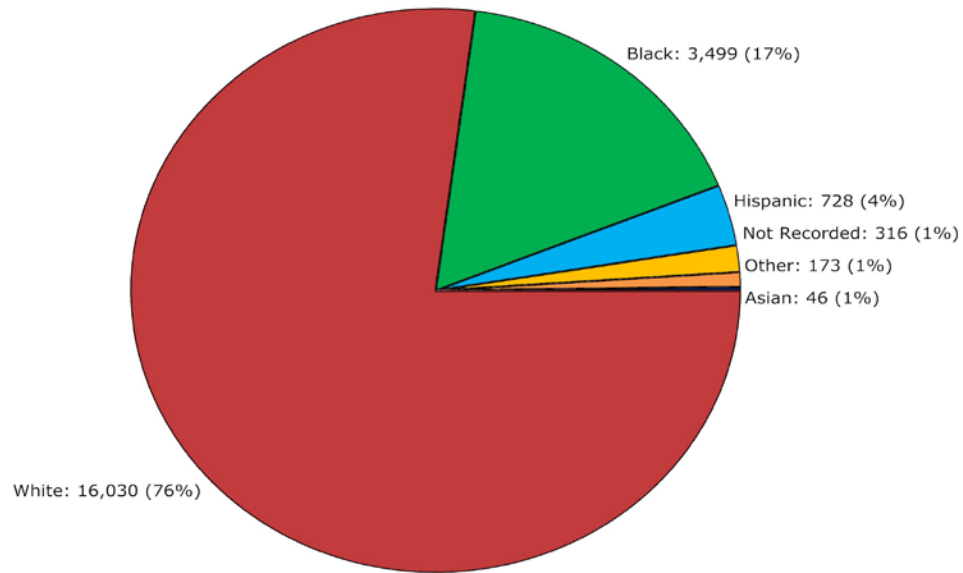
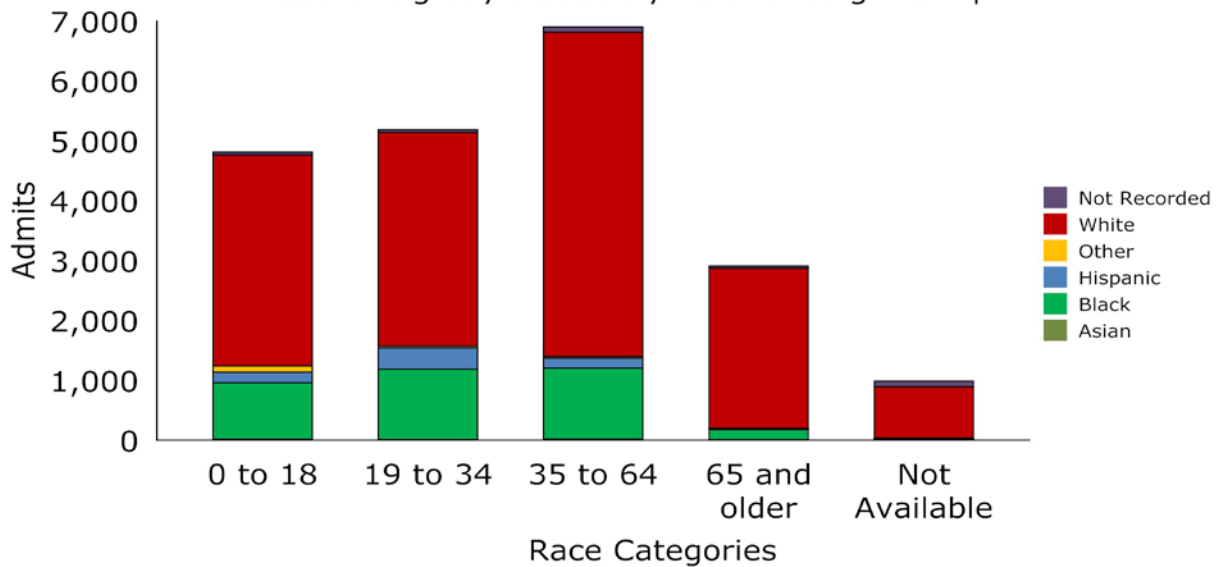


Figure 6b:

Trauma Registry Admits by Race and Age Group



	Asian	Black	Hispanic	Other	White	Not Recorded
0 to 18	16	945	180	102	3,521	51
19 to 34	7	1,182	358	28	3,565	45
35 to 64	17	1,187	167	25	5,415	89
65 and older	3	172	10	13	2,675	34
Not Available	3	13	13	5	854	97

Figure 7a:

Trauma Registry Admits by Gender and Percentage - 2007

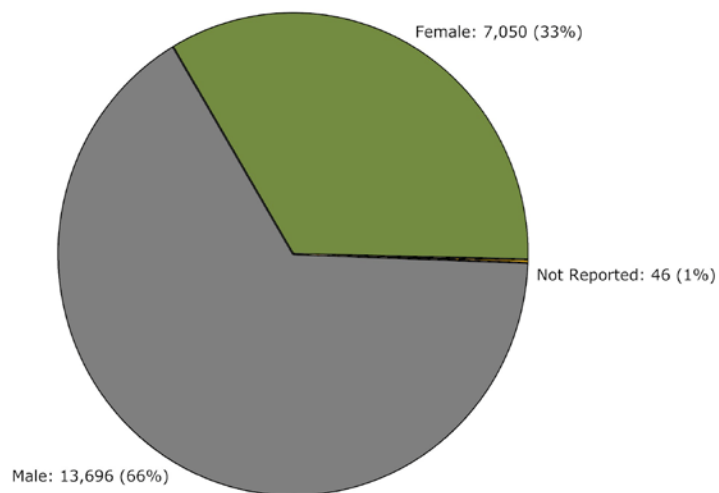


Figure 7b:

Trauma Registry Admits by Age Group and Gender

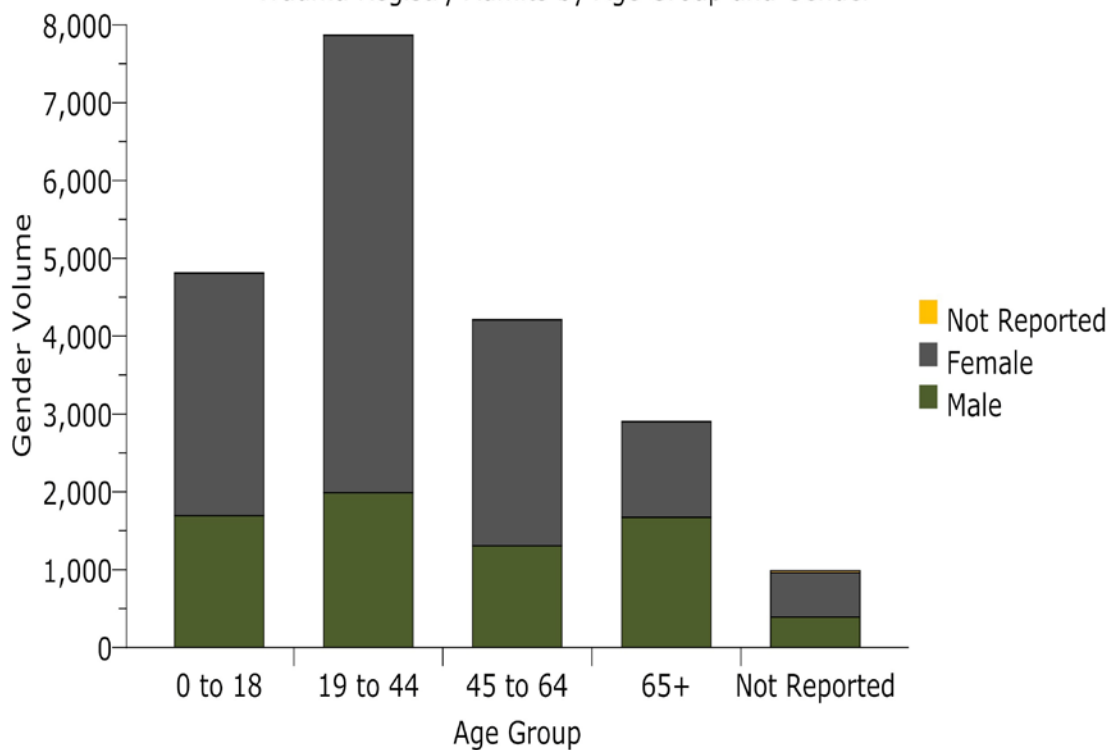


Figure 8a:

Registry Incidents by Transport Category 2007

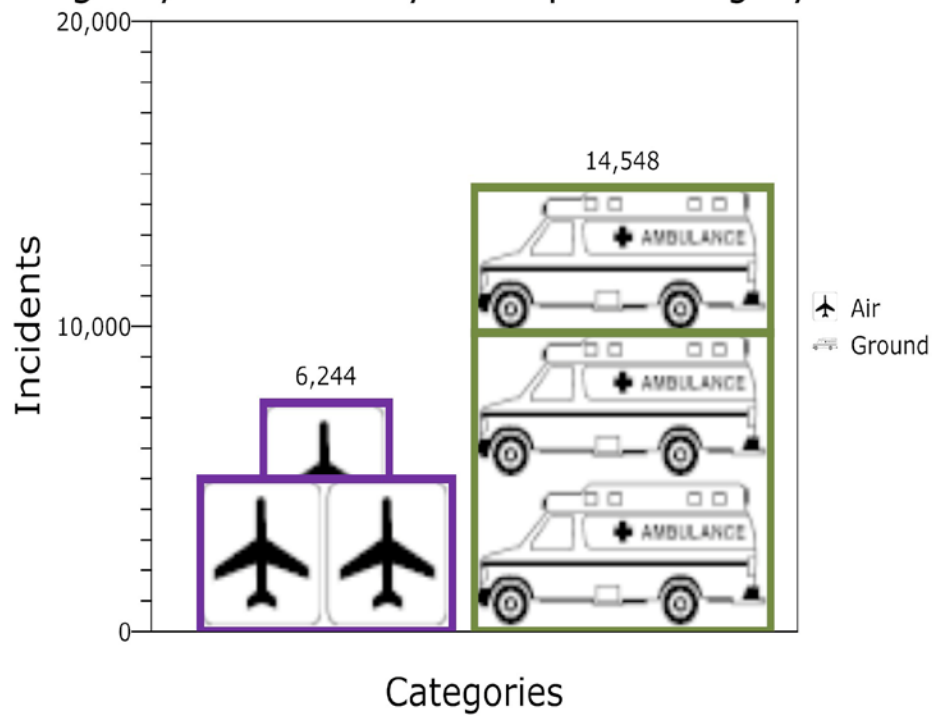


Figure 8b:

Number of Incidents by Geographic Region and Percentage 2007

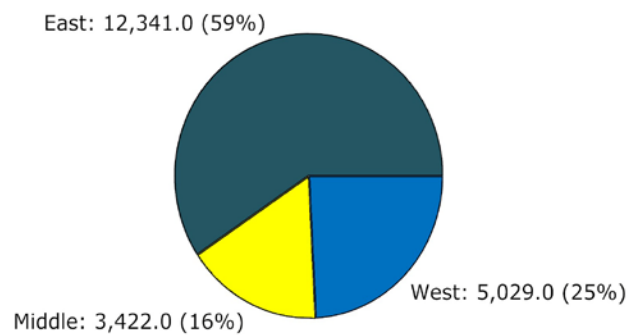


Figure 9:

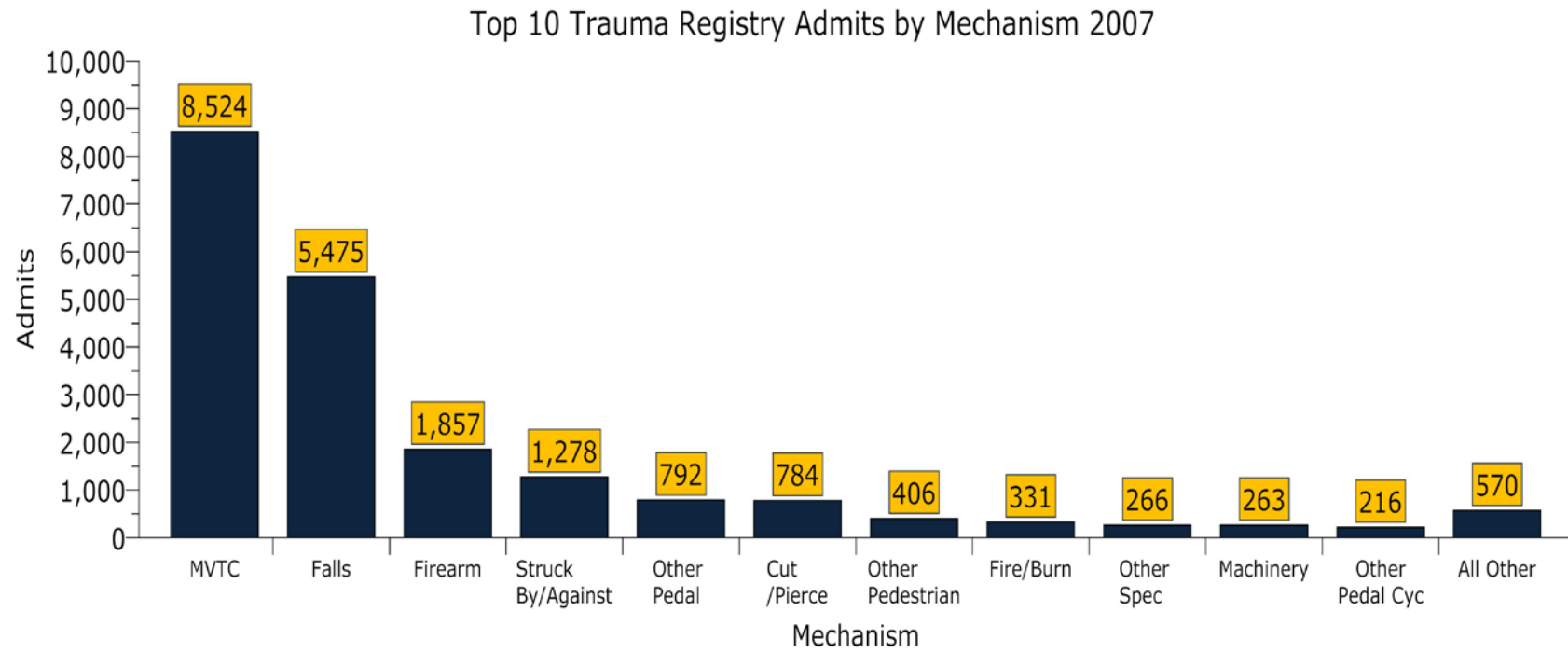
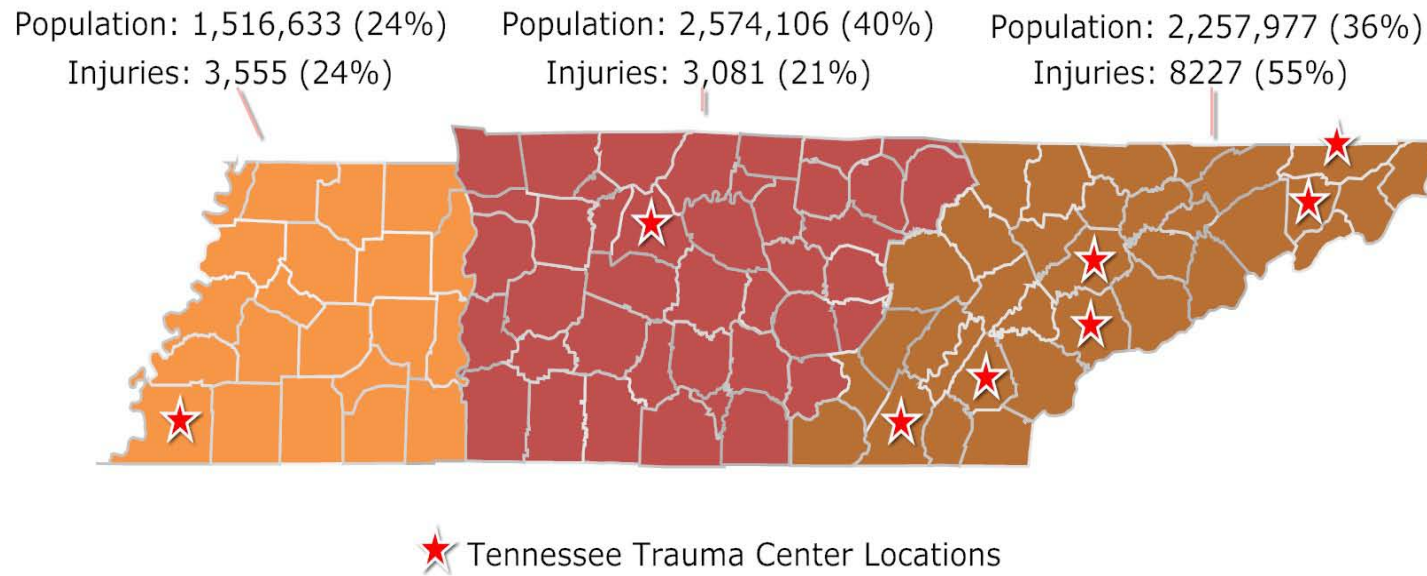


Figure 10:

Population and Injury Percentage per state geographical grand divisions



	West	Middle	East
TN Population Percentage	24%	40%	36%
TN Injury Percentage	24%	21%	55%
Number of Trauma Centers (Adult)	1	1	7

Figure 11a:

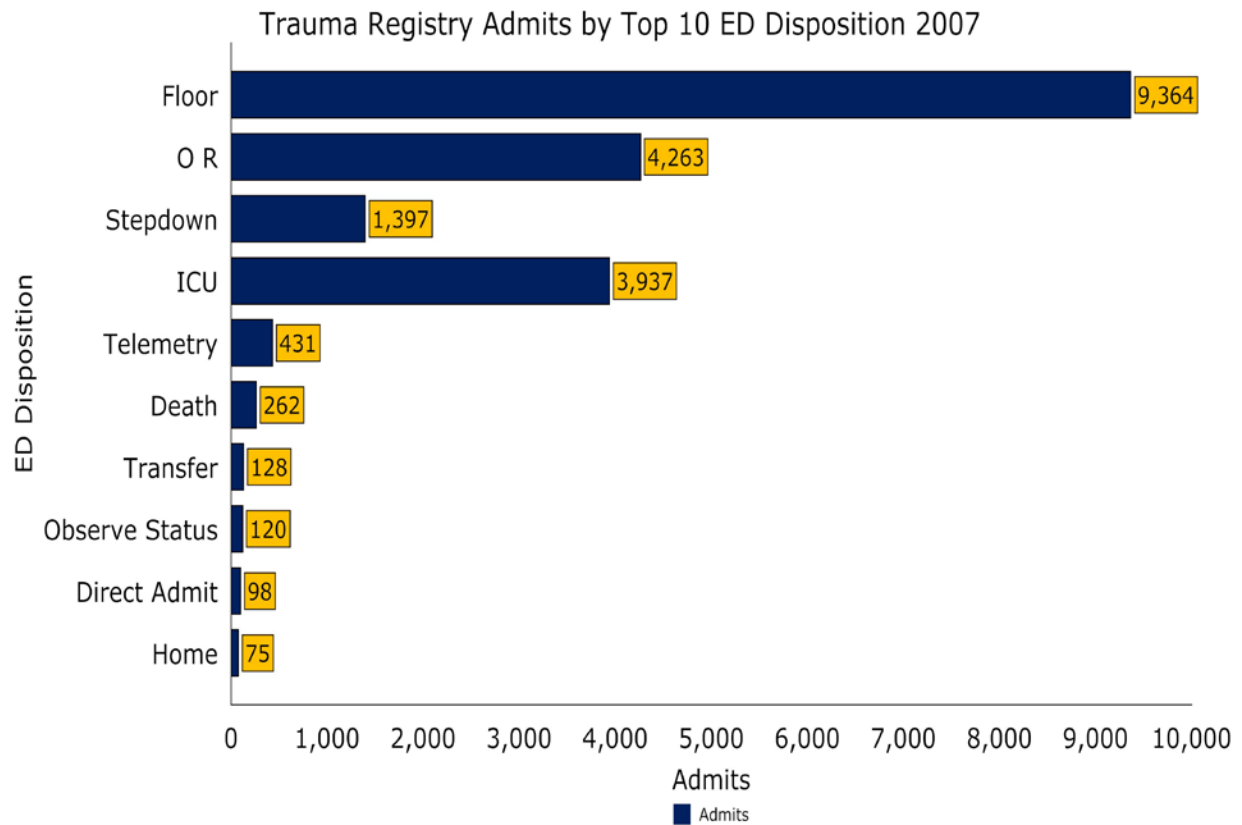


Figure 11b:

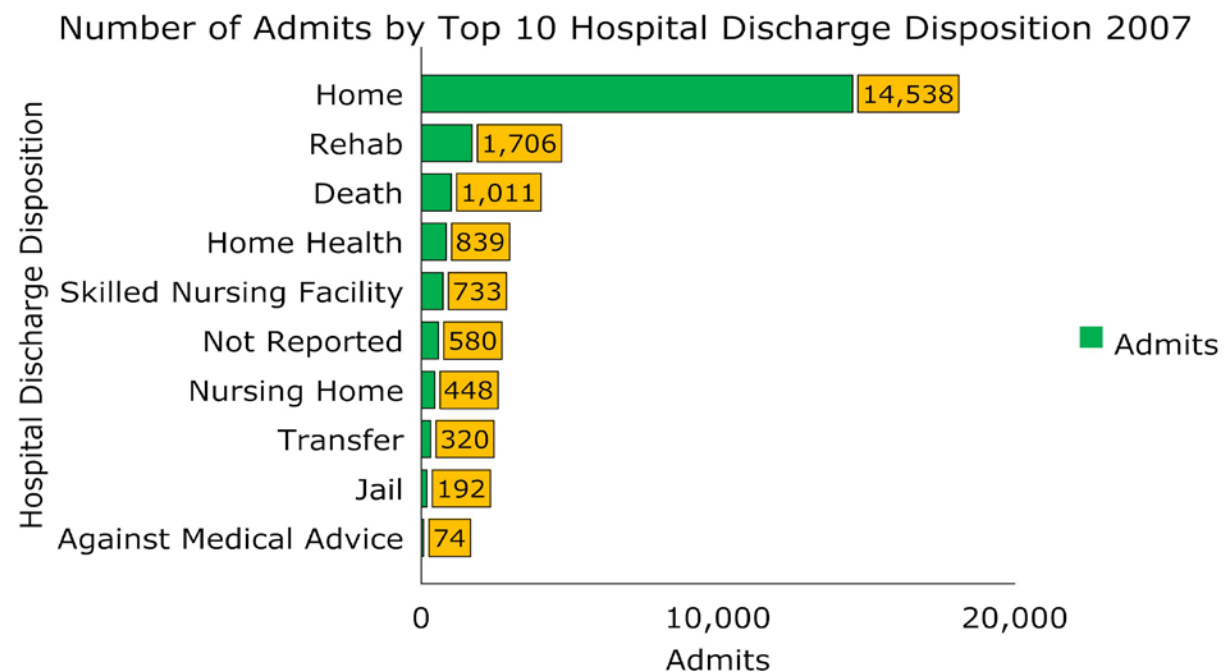


Figure 12a:

Case Fatality by Mechanism of Injury 2007

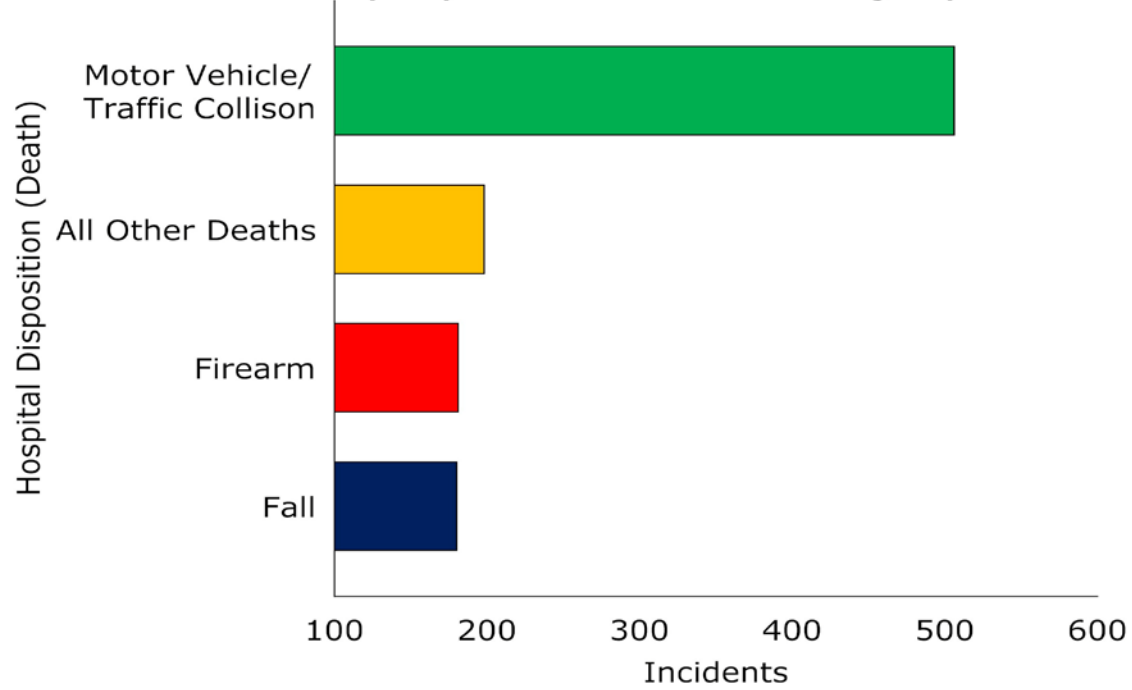


Figure 12b:

Case Fatality by Gender 2007

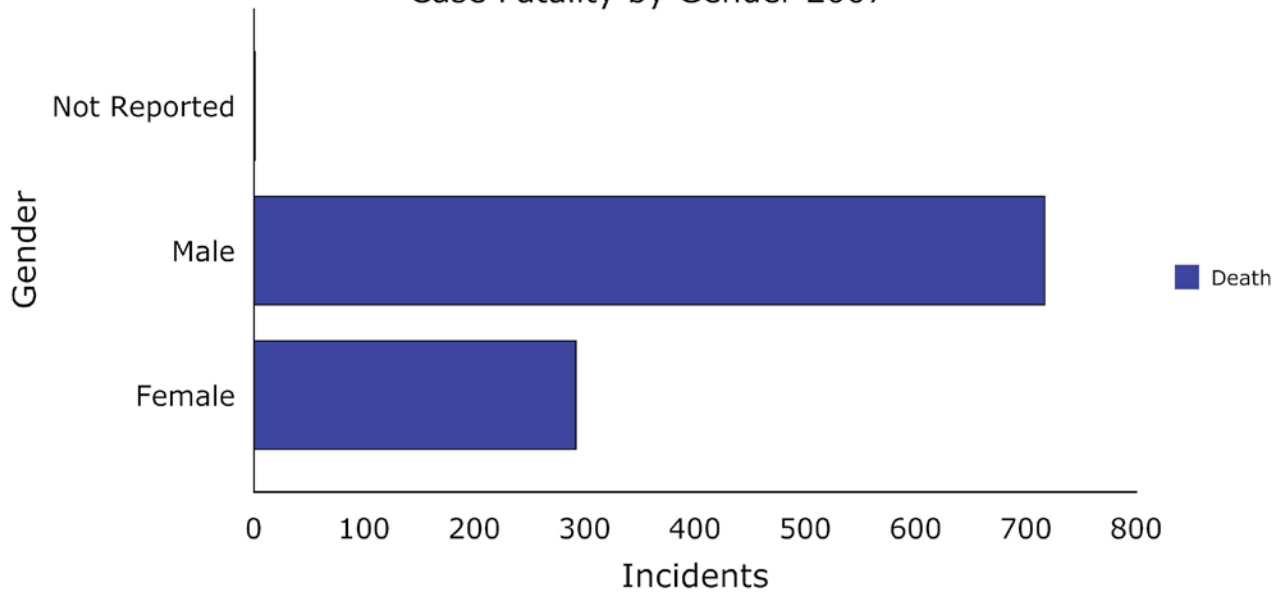


Figure 13a:

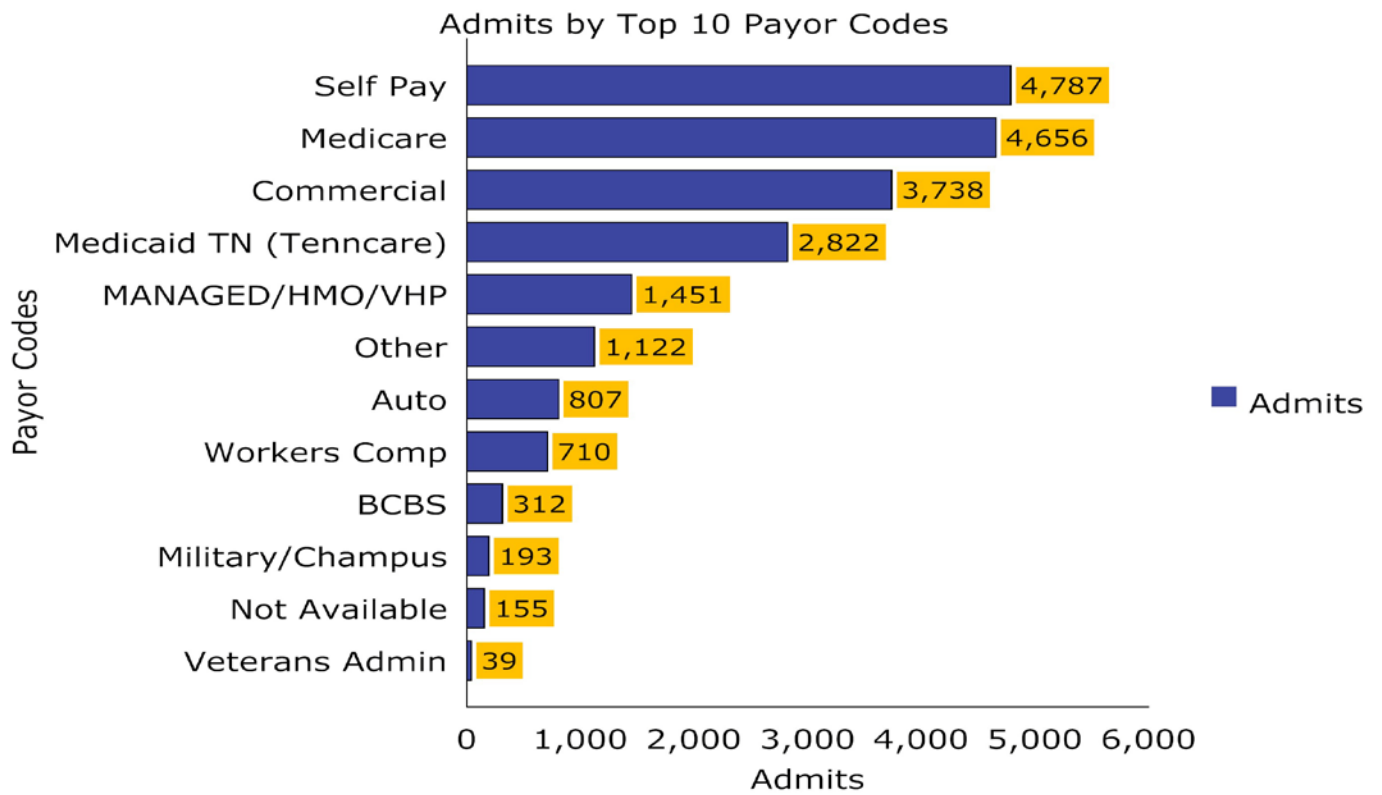
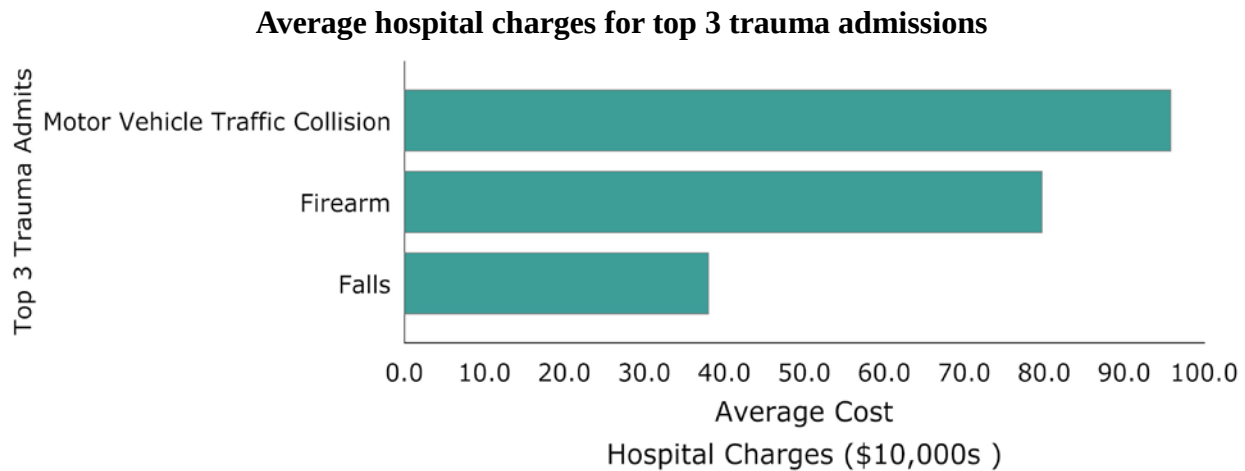


Figure 13b:



	Hospital Charges (\$10,000s)
Falls	38.0
Firearm	79.7
Motor Vehicle Traffic Collision	95.8

Appendix III 2008 Trauma Fund Distribution

Level	Hospital Name	Hospital Trauma Claims *	Uncomp- ensated Trauma Cost *	Hosp. % of State Uncomp Cost	Hospital Specific Pool Payment	Readiness Costs	Total Hospital Distribution Payment
Lev I	Vanderbilt University Hospital	4,544	\$25,635,499	34.3%	\$1,971,470	\$613,000	\$2,584,470
Lev I	Regional Medical Center (The Med)	3,351	22,148,068	29.6%	1,703,273	\$389,000	2,092,273
Lev I	UT Memorial Hospital	3,655	9,675,638	12.9%	744,094	\$409,000	1,153,094
Lev I	Erlanger Medical Center	3,321	6,849,792	9.2%	526,776	\$613,000	1,139,776
Lev I	Johnson City Medical Center	1,989	3,192,373	4.3%	245,506	\$290,000	535,506
Lev I	Wellmont Holston Valley Medical Ctr	1,520	1,651,381	2.2%	126,998	\$290,000	416,998
Lev II	Wellmont Bristol Regional Medical Ctr	1,018	833,704	1.1%	64,115	\$151,000	215,115
Lev III	Blount Memorial Hospital	503	120,160	0.2%	9,241	\$62,000	71,241
Lev III	Athens Regional Medical Center	301	31,857	0.0%	2,450	\$62,000	64,450
PED	Methodist Healthcare - Le Bonheur	1,043	713,104	1.0%	54,840	\$257,000	311,840
PED	East Tennessee Children's Hospital	239				\$204,000	204,000
	Skyline Medical Center	543	419,330	0.6%	32,248		32,248
	Maury Regional Hospital	813	405,510	0.5%	31,185		31,185
	Middle Tennessee Medical Center	671	364,341	0.5%	28,019		28,019
	University Medical Center	475	323,365	0.4%	24,868		24,868
	Saint Mary's Health System	874	312,652	0.4%	24,044		24,044
	Southern Hills Medical Center	295	293,974	0.4%	22,608		22,608
	Henry County Medical Center	487	225,718	0.3%	17,359		17,359
	Methodist Medical Ctr of Oak Ridge	840	205,823	0.3%	15,829		15,829
	Memorial Healthcare System	731	204,179	0.3%	15,702		15,702
	Horizon Medical Center	309	192,105	0.3%	14,774		14,774
	Williamson Medical Center	467	173,191	0.2%	13,319		13,319
	Regional Hospital of Jackson	208	145,976	0.2%	11,226		11,226
	Harton Regional Medical Center	295	97,795	0.1%	7,521		7,521
	Laughlin Memorial Hospital	325	89,653	0.1%	6,895		6,895
	Fort Sanders Sevier Medical Center	215	77,429	0.1%	5,955		5,955
	Hendersonville Medical Center	198	75,120	0.1%	5,777		5,777
	Southern Tennessee Medical Center	230	74,776	0.1%	5,751		5,751
	Cumberland Medical Center	381	67,157	0.1%	5,165		5,165
	Memorial North Park Hospital	291	48,934	0.1%	3,763		3,763
	Baptist Hospital - West	179	44,814	0.1%	3,446		3,446
	Roane Medical Center	218	33,897	0.0%	2,607		2,607
	Totals	47,946	\$74,727,315	100.0%	\$5,746,823	\$3,340,000	\$9,086,823

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