# 2017 CLARK COUNTY TRAUMA SYSTEM REPORT



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# Acknowledgments

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- American College of Surgeons Committee on Trauma
- Centers for Disease Control and Prevention
- St. Rose Dominican Hospitals Siena Campus
- Sunrise Hospital & Sunrise Children's Hospital
- University Medical Center

# Introduction

This Clark County Trauma System Report describes the status, activities, and achievements of the Clark County Trauma System. Since its inception in 2005, the trauma system leadership has made significant strides laying the foundation for the development of a comprehensive and well-coordinated trauma system to serve the needs of the residents of Southern Nevada, our bordering states, and the tremendous number of visitors to our community each year.

# The Need for a Trauma System

Intentional and unintentional injuries are the leading causes of death and disability for those between the ages of 1 and 44 in the United States each year and generate significant social and economic expenses for medical treatment and lost productivity of victims. Recent events have demonstrated that natural and human-made disasters are capable of producing large numbers of injured patients. The recognition of the significant impact that traumatic injury has on the individual and society has led to a greater emphasis on the development of trauma systems of care as an identified public health problem. Trauma systems conduct daily operations to optimize patient outcome and can readily adapt to manage an influx of injured patients resulting from a mass casualty incident.

# What is a Trauma System?

A trauma system is an organized, coordinated, comprehensive injury response network of essential resources that promote injury prevention and control initiatives and provides specialized care for those who are injured. The system facilitates appropriate triage and transportation of trauma patients through the emergency medical services system to designated health care facilities that possess the capability, competence, and commitment to providing optimum care for the victims of trauma. It also promotes rehabilitation services to decrease the likelihood of long-term disability and maximize the potential for injured patients to return to their prior level of functional capacity and reintegration into the community.

The goals of a trauma care delivery system are to:

- Reduce the incidence and severity of injuries
- Improve the health outcome of those who are injured by ensuring equitable access to the most appropriate health care resources promptly
- Promote efficient, cost-effective delivery of care
- Implement performance improvement activities to ensure quality care throughout the system
- Advocate for sufficient resources to meet the needs of the injured in the community

# **Trauma System Components**

The prehospital component of the trauma system is designed to provide initial assessment and management of injured patients at the scene of an emergency and safe and efficient transport to the most appropriate health care facility. In Clark County, six public fire departments provide emergency medical services (EMS): Boulder City Fire Department, Clark County Fire Department, Henderson Fire Department, Las Vegas Fire & Rescue, Mesquite Fire & Rescue, and North Las Vegas Fire Department. The private franchised EMS agencies serving the area are American Medical Response, Community Ambulance, Guardian Elite Medical Services, and MedicWest Ambulance. Air ambulance services are provided by AirMed Response (fixed wing) and Mercy Air Service Inc. (rotor wing).

The American College of Surgeons Committee on Trauma has developed a classification system to identify the necessary resources to provide optimal care to injured patients. It is not a ranking of medical care provided by a health care facility but the recognition of the depth of resources available within the institution.

#### Level I

A Level I trauma center provides comprehensive care for the most severely injured patients. The required clinical resources include emergency medicine, general and subspecialty surgical and anesthesia services. A Level I trauma center is expected to provide leadership in trauma system planning, education, and research. In addition, the center is required to meet certain volume performance standards such as admitting at least 1200 patients annually.

#### Level II

A Level II trauma center provides comprehensive trauma care based on the environment of the region. In population-dense areas, the Level II should supplement the clinical activity and expertise of the Level I facility. A Level II trauma center is expected to provide initial and definitive trauma care for severely injured patients but may not provide all subspecialty services. The required resources include all the clinical services provided by a Level I trauma center except hand and microvascular surgical services.

#### Level III

A Level III trauma center provides trauma care based on the defined scope of care and expertise available at the facility. A Level III trauma center should supplement the clinical activity and expertise of the Level I and Level II trauma centers by providing definitive care to the less severely injured patients in the region, leaving the comprehensive trauma resources available to the most severely injured patients. Level III trauma centers transfer injured patients that exceed the facility resources to Level I and Level II trauma centers. The required resources include emergency medicine and general and orthopedic surgical services. The other subspecialties are desired but not required.

#### **Pediatric Level I or Level II**

A Pediatric Level I or Level II trauma center is a health care facility that has committed the necessary resources and expertise to meet the specialized needs of the pediatric population. A pediatric trauma center is expected to assume a leadership role in the care of injured children within their community.

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# **Clark County Trauma System**

In the Clark County Trauma System, University Medical Center is permitted as a Level I and Pediatric Level II trauma center; Sunrise Hospital is permitted as a Level II trauma center; St. Rose Dominican Hospitals – Siena Campus is permitted as a Level III trauma center. In the interest of facilitating the timely transportation of trauma patients from the scene of an emergency to the closest appropriate trauma center, the Office of Emergency Medical Services & Trauma System (OEMSTS) creates geographic catchment areas. One of the responsibilities of the Regional Trauma Advisory Board (RTAB) is to monitor the distribution of trauma patients to ensure patients are matched with the appropriate resources while providing sufficient volume to each trauma center to provide stability within the trauma system.

# **Leadership and Legislation**

The Nevada Division of Public and Behavioral Health has the authority to designate a health care institution as a Level I, II or III trauma center or Pediatric Level I or II trauma center based on the American College of Surgeons verification classification system. During the 2005 state legislative session, Nevada Revised Statute (NRS) 450B.237 was promulgated authorizing the Southern Nevada District Board of Health to establish and adopt a comprehensive trauma system plan concerning the treatment of trauma in Clark County. This authorization included, without limitation: consideration of the future trauma needs of the county; consideration of and plans for the development and designation of new trauma centers based on the demographics of the county; and the manner in which trauma services could be provided most effectively.

The Southern Nevada Health District OEMSTS assumed the role of providing administrative oversight of the Clark County Trauma System and with the assistance of local trauma leaders and community stakeholders, developed the Clark County Trauma System Regulations which were adopted by the District Board of Health in May 2007.

To assist the Health District's Chief Health Officer and OEMSTS in fulfilling the responsibilities defined in the new legislation and regulations, the RTAB was created. The primary mission of the RTAB is to support the Health Officer's role to ensure a quality system of patient care for the victims of trauma within Clark County and surrounding areas by making recommendations and assisting in the ongoing design, operation, evaluation, and revision of the system from initial patient access to definitive patient care. The members of the RTAB include a trauma surgeon and trauma program manager from each designated trauma center; the chairman of the Health District's Emergency Medical Services Medical Advisory Board; an administrator from a non-trauma hospital; a person representing the public providers of advanced emergency care; a person representing the private franchised providers of advanced emergency care; a person representing health education and prevention services; a person representing the payors of medical benefits for the victims of trauma; and a person representing the general public. RTAB meets monthly or quarterly according to the trauma system's needs.



# **Trauma System Evaluation and Performance Improvement**

An essential component of any trauma system is a continuous, comprehensive, multi-disciplinary, evidencebased performance improvement process that monitors and evaluates the structure, process and outcome measures of the trauma system through all phases of care. The trauma system performance improvement process consists of three major elements:

- 1. An internal performance improvement and patient safety program within each trauma center;
- An external process that includes periodic audits of each trauma center by the Nevada State Health Division and the Health District; scheduled independent evaluations of trauma care by trauma care experts from the American College of Surgeons; and trauma system review and analysis by the Trauma Medical Audit Committee;
- 3. Ongoing data collection, management, and analysis at the local, state and national level to ensure system effectiveness and identify trends, gaps and needs within the system.

The cornerstone of the trauma system medical review process is the Trauma Medical Audit Committee (TMAC) which is a peer review committee that meets to review, monitor, and evaluate trauma system performance and make recommendations for system improvements. The TMAC derives its authority and privilege from NRS 49.117 - 49.123; NRS 49.265; and NRS 450B.237. The members of the TMAC include the trauma medical director and program manager from each designated trauma center; the Clark County medical examiner or designee; the Health District's Regional Trauma Coordinator; a neurosurgeon; an anesthesiologist; an orthopedic surgeon; and an emergency physician not affiliated with a trauma center. The committee meets quarterly and provides important opportunities for the Clark County Trauma System to benefit from the individual centers sharing their clinical care experiences.

The ability to effectively evaluate trauma system performance is contingent upon appropriate data collection, management, analysis, and reporting. Each designated trauma center is required by NRS 450B.238 to provide data on any person who sustains an acute injury which has the potential of being fatal or producing major disability to the state trauma registry managed by the State Health Division, Bureau of Health Planning and Statistics. The trauma registry is one source of valuable information needed to describe the full spectrum of injured patients within a trauma system. The trauma centers also voluntarily provide data to the National Trauma Data Bank maintained by the American College of Surgeons Committee on Trauma.

At the regional level, the trauma centers submit data to the Health District related to patients who have sustained injury and meet the trauma field triage criteria used to evaluate the patient's condition in the field based on physiological conditions, anatomical considerations, and the mechanism of injury as outlined in the Clark County EMS System Trauma Field Triage Criteria Protocol (TFTC). In addition, inpatient injury data from the Center for Health Information Analysis at the University of Nevada, Las Vegas and injury mortality data provided by the Clark County Coroner's Office are used to evaluate trauma system resource utilization and in planning for improved system effectiveness and efficiency.

# Rehabilitation

The continuum of care provided in a trauma system includes access to appropriate rehabilitation services. Injury produces enormous direct and indirect costs. Consideration of the injured patient's need for rehabilitation should begin early in the treatment plan to decrease the likelihood of long-term disability and maximize the potential for the individual to return to optimum functional capacity. It is not only important for the patient and their family to have the ability to live independently and enjoy a good quality of life, but it also reduces the significant economic burden on society.

# **Injury Prevention and Control**

Data collected in the trauma system can be used to plan, devise, and implement prevention strategies to reduce the incidence and severity of injury. In 2006, the Southern Nevada Injury Prevention Partnership (SNIPP) was created under the authority of the RTAB to facilitate and promote collaboration and coordination of injury prevention resources in Southern Nevada. The members of SNIPP include representatives from established injury prevention groups in Clark County and the health education and prevention services representative on the RTAB and acts as a liaison between the partnership and the Board.

The purpose of SNIPP is to:

- Advise and assist the RTAB in the structure and development of the injury prevention component of the Southern Nevada Trauma Plan;
- Assure the provision and/or initiation of a full spectrum of injury prevention efforts in Southern Nevada
  with emphasis on those that directly impact the trauma system;
- Develop quantitative community health and injury assessment to provide evidence-based and specific injury prevention program recommendations targeted to Southern Nevada;
  - facilitate and promote collaboration and coordination of available resources to meet identified needs;
  - facilitate and promote coordination and collaboration to evaluate program outcome data to modify existing programs and create new programs to meet identified needs; and
  - promote a heightened awareness of injury prevention issues and concerns to the community and recognition of injury prevention as a legitimate public and governmental service.



# **Disaster Planning and Management**

Terrorism and mass casualty events present unique triage, transport, treatment, and surge capacity challenges and have the potential to impact public health systems and emergency medical response capability. One of the responsibilities of the Southern Nevada Health District is to collaborate with members of the public safety, public health, and emergency medical care communities to plan a systematic response to natural or human-made disasters. The trauma centers in Clark County have actively participated in activities to promote disaster preparedness.

# Methodology

The data presented in the Clark County Trauma System Report is the most current information available from the identified sources chosen to provide an overview of injury and trauma system utilization at a national, state and local level. Cells with counts less than 5 are supressed per Southern Nevada Health District policy and are denoted with an asterisk (\*).

#### CDC - WISQARS 2016 Data

Injury data from the Centers for Disease Control and Prevention (CDC) are available through the Webbased Injury Statistics Query and Reporting System (WISQARS). The CDC defines injury as bodily harm resulting from severe exposure to an external force or substance (mechanical, thermal, electrical, chemical, or radiant) or a submersion. The cause or mechanism of injury is the way in which the person sustained the injury; how the person was injured; or the process by which the injury occurred. The intent of injury is whether an injury was caused by an act carried out on purpose by oneself or by another person with the goal of injuring or killing. Both fatal and nonfatal data are reported in WISQARS.

Injury mortality data are obtained from death certificates filed by state vital statistics offices which include causes of death reported by attending physicians, medical examiners, and coroners. This national mortality database is compiled by CDC's National Center for Health Statistics.

The nonfatal injury data presented in WISQARS are national estimates based on weighted data obtained from the National Electronic Injury Surveillance System – All Injury Program operated by the U.S. Consumer Product Safety Commission in collaboration with the National Center for Injury Prevention and Control. The data include all types and causes of nonfatal injuries treated in a representative sample of U.S. emergency departments.

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#### Trauma Field Triage Criteria (TFTC) 2017 Data

The three trauma centers in Clark County submit data to the OEMSTS related to patients transported according to the criteria outlined in the Health District's EMS Operations Trauma Field Triage Criteria Protocol. The TFTC algorithm is a triage decision scheme developed by the American College of Surgeons Committee on Trauma.

Prehospital professionals are trained to perform a physical assessment of trauma patients and to recognize specific injuries and mechanisms of injury that are likely to cause severe injury. Patients are then transported to area trauma centers based on these criteria:

**STEP 1 (PHYSIOLOGICAL)** – A trauma patient whose injury is so severe that their vital signs or level of consciousness are abnormal.

**STEP 2 (ANATOMICAL)** – A trauma patient whose vital signs and level of consciousness are within normal limits, but they have sustained an obvious serious injury; for example, an open or depressed skull fracture, pelvic fracture or paralysis.

**STEP 3 (MECHANISM)** – A trauma patient whose vital signs and level of consciousness are within normal limits and they do not appear to have an obvious serious injury, but they have experienced high energy impact to the body that may have caused a serious injury that is not immediately obvious.

**STEP 4 (SPECIAL CONSIDERATIONS)** – A trauma patient whose circumstances merit special considerations, for example, older adults, children, anticoagulants/bleeding disorders, and pregnancy.

#### **Clark County Trauma Registry 2017 Data**

On a quarterly basis, the trauma centers in Clark County provide the OEMSTS with a subset of trauma registry data identified by the RTAB as basic descriptive information to be used to assess trauma system resource utilization. The trauma registry data are based on the same definition used by the National Trauma Data Bank.

#### **Clark County Injury-Related Emergency Departments 2017 Data**

The Clark County injured-related Emergency Department visits to non-federal care hospitals is through discharge billing data provided by the Center for Health Information and Analysis, UNLV. Injury is defined as having one of the following ICD-10-CM diagnosis codes in the principal diagnosis field: All S codes for anatomic injuries, T07-T34.

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# Limitations

One of the most important limitations of the trauma system report is the lack of consistency in trauma data collection at the national, state, and local levels. Variability was noted in disease classification coding, case definitions, and inclusion criteria among the organizations that collect injury data. There is also a lack of data provided by all participants, including non-trauma hospitals and emergency medical services agencies, which mean the data reported are not representative of all trauma cases in the system.

It is the desire of the OEMSTS and members of the RTAB to be evidence-based in making decisions regarding future planning, development, and modification of the Clark County Trauma System. The stakeholders are working diligently to improve needs assessment activities specific to Clark County.

# **Plans for the Future**

The purpose of the Clark County Trauma System Report is to provide a snapshot of the status and evolving trauma system, unique to the county. The plans include developing a needs assessment tool to represent the trauma system specific to Clark County more accurately. More detailed and in-depth analysis of injury data will help us achieve our goal of preventing injury, improving access to quality trauma care when the need arises, and facilitating rehabilitation to maximize the potential for patients to achieve the highest level of functional ability following their injury.

Future evolution of the trauma system depends on a reliable surveillance system to monitor trends, identify problems, and provide valuable information to health care leaders, emergency managers, and policy-makers. Access to quality data contributes to the accurate assessment of current resources and assists in the development of comprehensive, evidence-based, and integrated strategic plans to promote the delivery of effective and efficient emergency medical care of injured patients. It is also important to have the ability to expand the capability and capacity of existing resources and adapt daily operations to manage an influx of multiple trauma patients resulting from a human-made or natural mass casualty event.

The Southern Nevada Health District appreciates the contributions and support of our community partners who have assisted in maintaining the Clark County Trauma System and have committed to building on the achievements to date.

# 10 Leading Causes of Death, Nevada

#### 2016, All Races, Both Sexes

	Age Groups											
		<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	All Ages
	1	Congenital Anomalies 38	Unintentional Injury 10	Malignant Neoplasms 	Suicide 11	Unintentional Injury 104	Unintentional Injury 182	Unintentional Injury 179	Heart Disease 431	Malignant Neoplasms 1,019	Heart Disease 4,895	Heart Disease 6,457
	2	Short Gestation 22	Homicide 	Unintentional Injury 	Malignant Neoplasms 	Homicide 56	Suicide 97	Heart Disease 135	Malignant Neoplasms 325	Heart Disease 940	Malignant Neoplasms 3,723	Malignant Neoplasms 5,214
	3	Maternal Pregnancy Comp. 15	Congenital Anomalies 	Congenital Anomalies 	Unintentional Injury 	Suicide 54	Homicide 50	Suicide 104	Unintentional Injury 241	Unintentional Injury 233	Chronic Low. Respiratory Disease 1,545	Chronic Low. Respiratory Disease 1,778
	4	Unintentional Injury 13	Heart Disease 	Homicide 	Chronic Low. Respiratory Disease 	Heart Disease 13	Heart Disease 33	Malignant Neoplasms 92	Suicide 119	Chronic Low. Respiratory Disease 168	Cerebro- vascular 870	Unintentional Injury 1,395
¥	5	SIDS 12	Influenza & Pneumonia 	Heart Disease 	Congenital Anomalies 	Malignant Neoplasms 13	Malignant Neoplasms 25	Liver Disease 37	Liver Disease 101	Liver Disease 133	Alzheimer's Disease 679	Cerebro- vascular 1,096
Ra	6	Respiratory Distress 	Malignant Neoplasms 	Benign Neoplasms 	Homicide 	Congenital Anomalies 	HIV 11	Homicide 29	Cerebro- vascular 61	Cerebro- vascular 124	Unintentional Injury 422	Alzheimer's Disease 686
	7	Circulatory System Disease 	Anemias 	Cerebro- vascular 	Heart Disease 	Chronic Low. Respiratory Disease 	Liver Disease 10	Cerebro- vascular 28	Influenza & Pneumonia 45	Diabetes Mellitus 103	Influenza & Pneumonia 411	Suicide 650
	8	Homicide 	Benign Neoplasms 	Chronic Low. Respiratory Disease 	Influenza & Pneumonia 	Cerebro- vascular 	Cerebro- vascular 	Diabetes Mellitus 25	Chronic Low. Respiratory Disease 41	Suicide 99	Diabetes Mellitus 403	Diabetes Mellitus 580
	9	Necrotizing Enterocolitis 	Perinatal Period 			HIV 	Three Tied 	HIV 13	Diabetes Mellitus 41	Influenza & Pneumonia 87	Parkinson's Disease 215	Influenza & Pneumonia 567
	10	Eight Tied 	Septicemia			Septicemia	Three Tied 	Influenza & Pneumonia 11	Homicide 36	Viral Hepatitis 38	Nephritis 214	Liver Disease 417

WISQARS™

Note: For leading cause categories in this State-level chart, counts of less than 10 deaths have been suppressed (---). Produced By: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention Data Source: National Center for Health Statistics (NCHS), National Vital Statistics System

### **10 Leading Causes of Death, United States**

#### 2016, All Races, Both Sexes

		Age Groups										
		<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	All Ages
	1	Congenital Anomalies 4,816	Unintentional Injury 1,261	Unintentional Injury 787	Unintentional Injury 847	Unintentional Injury 13,895	Unintentional Injury 23,984	Unintentional Injury 20,975	Malignant Neoplasms 41,291	Malignant Neoplasms 116,364	Heart Disease 507,118	Heart Disease 635,260
	2	Short Gestation 3,927	Congenital Anomalies 433	Malignant Neoplasms 449	Suicide 436	Suicide 5,723	Suicide 7,366	Malignant Neoplasms 10,903	Heart Disease 34,027	Heart Disease 78,610	Malignant Neoplasms 422,927	Malignant Neoplasms 598,038
	3	SIDS 1,500	Malignant Neoplasms 377	Congenital Anomalies 203	Malignant Neoplasms 431	Homicide 5,172	Homicide 5,376	Heart Disease 10,477	Unintentional Injury 23,377	Unintentional Injury 21,860	Chronic Low. Respiratory Disease 131,002	Unintentional Injury 161,374
	4	Maternal Pregnancy Comp. 1,402	Homicide 339	Homicide 139	Homicide 147	Malignant Neoplasms 1,431	Malignant Neoplasms 3,791	Suicide 7,030	Suicide 8,437	Chronic Low. Respiratory Disease 17,810	Cerebro- vascular 121,630	Chronic Low. Respiratory Disease 154,596
	5	Unintentional Injury 1,219	Heart Disease 118	Heart Disease 77	Congenital Anomalies 146	Heart Disease 949	Heart Disease 3,445	Homicide 3,369	Liver Disease 8,364	Diabetes Mellitus 14,251	Alzheimer's Disease 114,883	Cerebro- vascular 142,142
Rank	6	Placenta Cord Membranes 841	Influenza & Pneumonia 103	Chronic Low. Respiratory Disease 68	Heart Disease 111	Congenital Anomalies 388	Liver Disease 925	Liver Disease 2,851	Diabetes Mellitus 6,267	Liver Disease 13,448	Diabetes Mellitus 56,452	Alzheimer's Disease 116,103
	7	Bacterial Sepsis 583	Septicemia 70	Influenza & Pneumonia 48	Chronic Low. Respiratory Disease 75	Diabetes Mellitus 211	Diabetes Mellitus 792	Diabetes Mellitus 2,049	Cerebro- vascular 5,353	Cerebro- vascular 12,310	Unintentional Injury 53,141	Diabetes Mellitus 80,058
	8	Respiratory Distress 488	Perinatal Period 60	Septicemia 40	Cerebro- vascular 50	Chronic Low. Respiratory Disease 206	Cerebro- vascular 575	Cerebro- vascular 1,851	Chronic Low. Respiratory Disease 4,307	Suicide 7,759	Influenza & Pneumonia 42,479	Influenza & Pneumonia 51,537
	9	Circulatory System Disease 460	Cerebro- vascular 55	Cerebro- vascular 38	Influenza & Pneumonia 39	Influenza & Pneumonia 189	HIV 546	HIV 971	Septicemia 2,472	Septicemia 5,941	Nephritis 41,095	Nephritis 50,046
	10	Neonatal Hemorrhage 398	Chronic Low. Respiratory Disease 51	Benign Neoplasms 31	Septicemia 31	Complicated Pregnancy 184	Complicated Pregnancy 472	Septicemia 897	Homicide 2,152	Nephritis 5,650	Septicemia 30,405	Suicide 44,965

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Produced By: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention Data Source: National Center for Health Statistics (NCHS), National Vital Statistics System

### **10 Leading Causes of Nonfatal Injury, United States**

#### 2016, All Races, Both Sexes, Disposition: All Cases

	Age Groups										
	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	All Ages
1	Unintentional Fall 122,266	Unintentional Fall 750,052	Unintentional Fall 588,689	Unintentional Fall 490,255	Unintentional Struck by/ Against 843,602	Unintentional Fall 718,186	Unintentional Fall 661,809	Unintentional Fall 872,377	Unintentional Fall 1,072,216	Unintentional Fall 3,175,414	Unintentional Fall 9,194,403
2	Unintentional Struck by/ Against 28,224	Unintentional Struck by/ Against 282,087	Unintentional Struck by/ Against 348,333	Unintentional Struck by/ Against 482,632	Unintentional Fall 742,092	Unintentional MV-Occupant 592,609	Unintentional Overexertion 477,104	Unintentional Other Specified 439,928	Unintentional Other Specified 309,663	Unintentional Struck by/ Against 344,769	Unintentional Struck by/ Against 4,043,802
3	Unintentional Other Bite/ Sting 10,649	Unintentional Other Bite/ Sting 137,409	Unintentional Other Bite/ Sting 98,268	Unintentional Overexertion 250,247	Unintentional MV-Occupant 665,419	Unintentional Struck by/ Against 590,710	Unintentional Struck by/ Against 427,935	Unintentional Struck by/ Against 405,938	Unintentional Struck by/ Against 289,371	Unintentional Overexertion 257,602	Unintentional Overexertion 2,968,273
4	Unintentional Foreign Body 10,046	Unintentional Foreign Body 117,387	Unintentional Cut/Pierce 88,241	Unintentional Cut/Pierce 112,638	Unintentional Overexertion 580,343	Unintentional Overexertion 562,016	Unintentional MV-Occupant 417,169	Unintentional Overexertion 405,475	Unintentional Overexertion 283,343	Unintentional MV-Occupant 241,134	Unintentional MV-Occupant 2,723,012
5	Unintentional Other Specified 8,857	Unintentional Cut/Pierce 70,899	Unintentional Overexertion 80,651	Unintentional MV-Occupant 71,252	Unintentional Cut/Pierce 387,016	Unintentional Other Specified 454,527	Unintentional Other Specified 375,750	Unintentional MV-Occupant 372,488	Unintentional MV-Occupant 270,408	Unintentional Cut/Pierce 177,209	Unintentional Other Specified 2,182,292
6	Unintentional Fire/Burn 7,081	Unintentional Overexertion 67,790	Unintentional MV-Occupant 60,722	Unintentional Unknown/ Unspecified 66,312	Unintentional Other Specified 348,726	Unintentional Cut/Pierce 408,160	Unintentional Poisoning 312,902	Unintentional Poisoning 360,752	Unintentional Poisoning 245,288	Unintentional Poisoning 141,837	Unintentional Cut/Pierce 1,994,265
7	Unintentional Inhalation/ Suffocation 5,111	Unintentional Other Specified 59,638	Unintentional Foreign Body 54,978	Unintentional Other Bite/ Sting 60,262	Other Assault <sup>A</sup> Struck by/ Again 333,051	Unintentional Poisoning 358,454	Unintentional Cut/Pierce 285,165	Unintentional Cut/Pierce 254,245	Unintentional Cut/Pierce 206,002	Unintentional Other Specified 137,863	Unintentional Poisoning 1,711,836
8	Unintentional Unknown/ Unspecified 5,002	Unintentional Unknown/ Unspecified 39,644	Unintentional Pedal Cyclist 48,196	Unintentional Pedal Cyclist 59,702	Unintentional Poisoning 237,982	Other Assault <sup>A</sup> Struck by/ Again 343,026	Other Assault <sup>A</sup> Struck by/ Again 218,273	Other Assault <sup>A</sup> Struck by/ Again 167,942	Unintentional Other Bite/ Sting 117,195	Unintentional Other Bite/ Sting 107,023	Other Assault <sup>A</sup> Struck by/ Again 1,250,382
9	Unintentional Cut/Pierce 4,463	Unintentional Fire/Burn 39,079	Unintentional Dog Bite 36,934	Unintentional Other Transport 48,951	Unintentional Other Bite/ Sting 161,344	Unintentional Other Bite/ Sting 176,116	Unintentional Other Bite/ Sting 143,424	Unintentional Other Bite/ Sting 142,524	Other Assault <sup>A</sup> Struck by/ Again 81,739	Unintentional Unknown/ Unspecified 99,146	Unintentional Other Bite/ Sting 1,154,289
10	Unintentional MV-Occupant 3,879	Unintentional Poisoning 30,671	Unintentional Other Transport 31,934	Other Assault <sup>A</sup> Struck by/ Again 48,914	Unintentional Unknown/ Unspecified 132,613	Unintentional Unknown/ Unspecified 131,119	Unintentional Unknown/ Unspecified 106,005	Unintentional Unknown/ Unspecified 109,922	Unintentional Unknown/ Unspecified 81,296	Unintentional Other Transport 95,027	Unintentional Unknown/ Unspecified 800,719

WISQARS™

Rank

Produced By: Office of Statistics and Programming, National Center for Injury Prevention and Control (CDC)

Data Source: NEISS All Injury Program operated by the Consumer Product Safety Commission (CPSC)

<sup>A</sup> The 'Other Assault' category includes all assaults that are not classified as sexual assault. It represents the majority of assaults.

### 2017 TFTC Transports by Month to each Trauma Center

		Month										
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν
St. Rose – Siena	61	34	62	66	59	58	37	57	53	74	71	51
Sunrise	106	91	167	144	139	113	137	117	121	145	130	135
UMC	620	609	743	776	819	811	737	814	757	774	702	670



#### 2017 TFTC Transports by Percentage to each Trauma Center

Destination	Count	Percent
St. Rose — Siena	683	6.18
Sunrise	1545	13.97
UMC	8832	79.86



### **TFTC Transports by EMS Agency**

Agency (with combined fields)	Count	Percent				
Boulder City Fire Department	42	<1%				
Blue Diamond	*	*				
Community Ambulance	952	9%				
Cal-Nev-Ari	*	*				
City of Las Vegas	1180	11%				
Clark County	121	1%				
Cold Creek	*	*				
EMS	7583	71%				
Henderson Fire	570	5%				
Logandale	*	*				
MFR	*	*				
Mercy Air	10	<1%				
Моара	5	<1%				
Mount Charleston	6	<1%				
Mountain Springs	*	*				
North Las Vegas	198	2%				
Other Air	*	*				
Other Ground	*	*				
Overton	11	<1%				
Sandy Valley	*	*				
Frequency Missing = 363						





### 2017 TFTC by TFTC Category

Category	Count	Percent
Anatomical	811	7.33
Mechanism	4761	43.05
Physiological	509	4.6
Special Considerations	4979	45.02



# 2017 TFTC Transports by Disposition from Trauma Centers

Disposition	Count	Percent
Admitted	2341	21.17
Deceased	172	1.56
Discharged	7291	65.92
ICU	745	6.74
OR	431	3.9
Transferred	80	0.72



### TFTC Transports to each Trauma Center by Year

Destination	2015	2016	2017
St. Rose – Siena	421	612	683
Sunrise	1001	1322	1545
UMC	4687	4836	8832



### **TFTC Transports Under Each Step by Year**

Category	2015	2016	2017
Step 1: Physiological	645	522	509
Step 2: Anatomical	625	787	811
Step 3: Mechanism	3992	4324	4761
Step 4: Special Considerations	847	1137	4979





### St. Rose – Siena TFTC Transports by Step

Category	2015	2016	2017
Step 1: Physiological	11	*	5
Step 2: Anatomical	6	*	*
Step 3: Mechanism	373	507	460
Step 4: Special Considerations	31	102	206



### Sunrise TFTC Transports by Step

Category	2015	2016	2017
Step 1: Physiological	166	170	80
Step 2: Anatomical	158	209	223
Step 3: Mechanism	533	679	802
Step 4: Special Considerations	144	264	440



### UMC TFTC Transports by Step

Category	2015	2016	2017
Step 1: Physiological	468	351	424
Step 2: Anatomical	461	576	576
Step 3: Mechanism	3086	3138	3499
Step 4: Special Considerations	672	771	4333



# 2017 Clark County Trauma Registry Patients by Trauma Center

Facility Name	Count	Percent
St. Rose Dominican Hospital	648	12
Sunrise Hospital Medical Center	1265	23
University Medical Center	3566	65





# 2017 Clark County Trauma Registry Patients by Age Group

Age Group	Count	Percent
<1	95	1.28
1-5	167	2.25
6-17	442	5.97
18-24	616	8.31
25-34	1008	13.61
35-44	710	9.58
45-54	798	10.77
55-64	974	13.15
65-74	1003	13.54
75-84	929	12.54
85+	667	9



2017 Clark County Trauma Registry Patients by Gender			
Gender	Count	Percent	
Female	2997	40.45	59.
Male	4408	59.5	
Unknown	4	0.05	Ma



# 2017 Clark County Trauma Registry Patients by Race

Race	Count	Percent
American Indian	31	0.42
Asian	326	4.4
Black or African American	919	12.4
Native Hawaiian or Other Pacific Islander	38	0.51
White	4595	62.02
Other Race	1102	14.87
Unknown/Non-Applicable	398	5.37



### 2017 Clark County Trauma Registry Patients by Penetrating vs. Blunt Trauma

Trauma	Count	Percent
Blunt	6171	83.29
Burn	53	0.72
Other	130	1.75
Penetrating	1002	13.52
Unknown/Non-applicable	53	0.71



### 2017 Clark County Trauma Registry Patients by Mode of Arrival on the Scene

Mode of Arrival	Count	Percent
Ground Ambulance	5357	72.3
Helicopter Ambulance	449	6.06
Other	27	0.16
Private Vehicle or Walk-in	1539	20.77
Unknown/Non-applicable	37	0.50



### 2017 Clark County Trauma Registry Patients Received by Transfer from Another Healthcare Facility by Referring Facility State

Incident State	Count	Percent
Arizona	354	87
California	42	10
Utah	10	3
Nevada	1016	69
Other States	15	1
Unknown/Not Applicable	43	3



2017 Clark County Trauma Registry Patients Received by Transfer from Another Healthcare Facility by Referring Facility Location in Nevada

Incident Area	Count	Percent
Clark County, NV	897	88
Other Nevada	119	12



### 2017 Clark County Trauma Registry Interfacility Transferred Patients by Mode of Arrival

Mode of Arrival	Count	Percent
Ground Ambulance	1145	78.86
Helicopter Ambulance	282	19.42
Other	18	0.14
Unknown	7	0.48



# 2017 Clark County Trauma Registry Patients by Disposition

Disposition (combined fields)	Count	Percent
Acute Care Facility	1067	14.4
Correctional Facility	60	0.81
Home or Self Care	3192	43.08
Home with Services	373	5.03
Hospice	76	1.03
Left Against Medical Advice	90	1.21
Skilled Nursing Facility, Long Term Care, Nursing Home	906	1.27
Mental Health/Psychiatric Hospital (Inpatient)	75	1.01
Deceased	236	3.19
Rehab (Inpatient)	1107	14.94
Other	47	0.03



### Injury-Related Emergency Department Discharges by Race/Ethnicity

Race/Ethnicity	Count	Percent
Native American or Alaskan	381	0.25
Asian or Pacific Islander	6615	4.25
Black	30539	19.64
White	74359	47.82
Hispanic	31864	20.49
Other	10191	6.55
Unknown	1539	0.99



### Injury-Related Emergency Department Discharges by Gender

Gender	Count	Percent
Female	76792	49.39
Male	78652	50.58
Unknown	44	0.03



### Injury-Related Emergency Department Discharges by Age Group

Age Group	Count	Percent
Under 1 year	1840	1.18
1 to 4 years	10649	6.85
5 to 14 years	17900	11.51
15 to 24 years	23589	15.17
25 to 34 years	27240	17.52
35 to 44 years	20514	13.19
45 to 54 years	18400	11.83
55 to 64 years	14530	9.34
65 to 74 years	10355	6.66
75 to 84 years	6727	4.33
85 years and over	3744	2.41



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## 2017 Clark County Injurty-Related Emergency Departments by Payer

Payer	Count	Percent
Medicare	13760	8.85
Charity	3744	2.41
CHAMPUS or CHAMPVA	2426	1.56
Nevada Medicaid	13410	8.62
Other Medicaid	1306	0.84
Self Pay	13412	8.63
Miscellaneous	3823	2.46
Commercial Insurer	19516	12.55
Negotiated Discounts (e.g., PPO)	10772	6.93
НМО	22434	14.43
County Indigent Referral	293	0.19
All Workers Compensation (e.g., SIIS)	5380	3.46
Medicare HMO	7407	4.76
Nevada Medicaid HMO	37693	24.24
Unknown/Non-applicable	112	0.07



### 2017 Clark County Injurty-Related Emergency Departments by Payer



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