

Utah Trauma Update: *Utah Trauma Update*

January 1, 2007

2007 Trauma Update

Utah Department of Health

Welcome to the 2007 update to the Utah Statewide Trauma registry fact sheet. This update addresses similar topics to those presented in the first such fact sheet published in 2004. The registry formally began collecting information in 2001 from every hospital in the state of Utah and now contains more than 38,000 serious injuries recorded in the registry from 2001 through 2005.

The purpose of the Registry is to inform health professionals about injury trends and to identify aspects of medical treatment that can be improved. To qualify for inclusion in the Utah Trauma Registry, an injury must be serious enough to require air transport from the scene of injury, or warrant hospital admission lasting at least 48 hours, or require transfer to another hospital, or result in death during hospitalization. The Registry does exclude simple fractures to the hip or spinal column among the elderly suffering a same-level fall.

We begin with **Figure 1** which contains information from 38,253 injuries recorded in the Registry from 2001-2005. The figure indicates in which counties these serious injuries occurred. Most injuries requiring intensive medical care occur along the Wasatch Front. However, when you consider the rate of injury to residents and visitors (red bars), a significant risk of serious injury exists in more rural regions including Beaver, Juab, Millard, Summit, and Wayne counties. These counties all demonstrate higher injury rates with more than 60 serious injuries per 10,000 residents per year.

What Are the Deadliest Mechanisms of Injury?

Figure 2 demonstrates two important points. First, most serious injuries are associated with a handful of mechanisms. Injuries associated with a motor vehicle, motorcycle, or pedestrian injuries represent a sizable portion of the injury events and deaths. Surprisingly, a large number serious injuries are associated with off-road vehicles. The second important point addressed in Figure 2 is the lethality of injuries. Intentional injuries appear to be the most lethal. However, injuries among pedestrians demonstrate a 10% mortality rate, much higher than the rate associated with bicycles, motorcycles, or motor vehicles.

Figure 1 reports the trauma cases occurring in Utah from 2001-2005 in blue and the rate per 10,000 county residents per year in red.

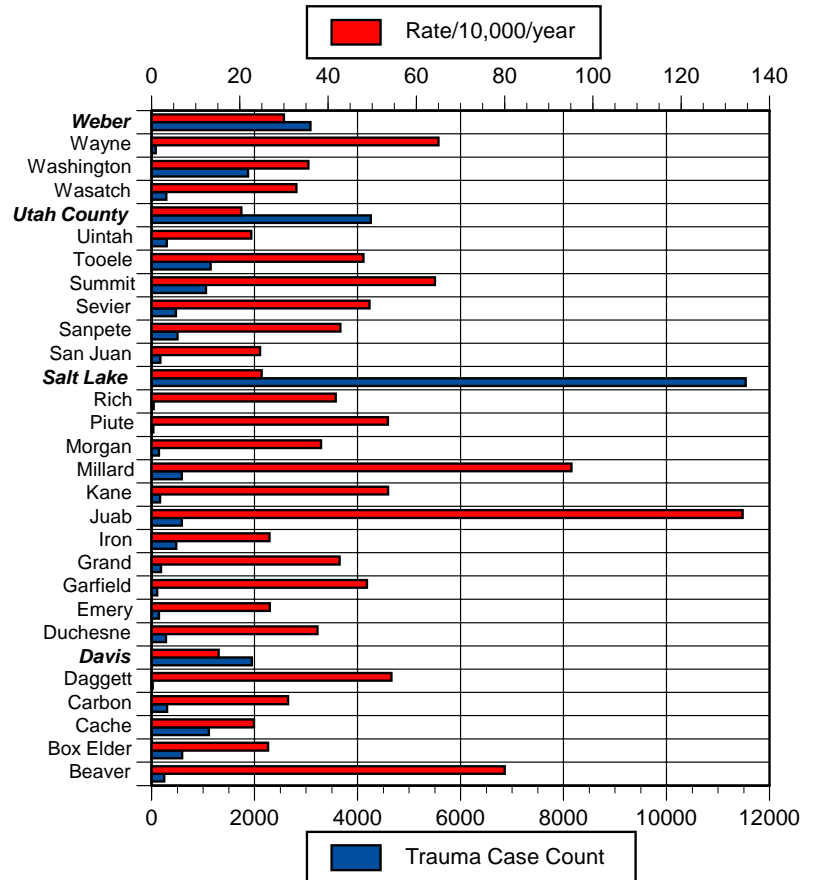
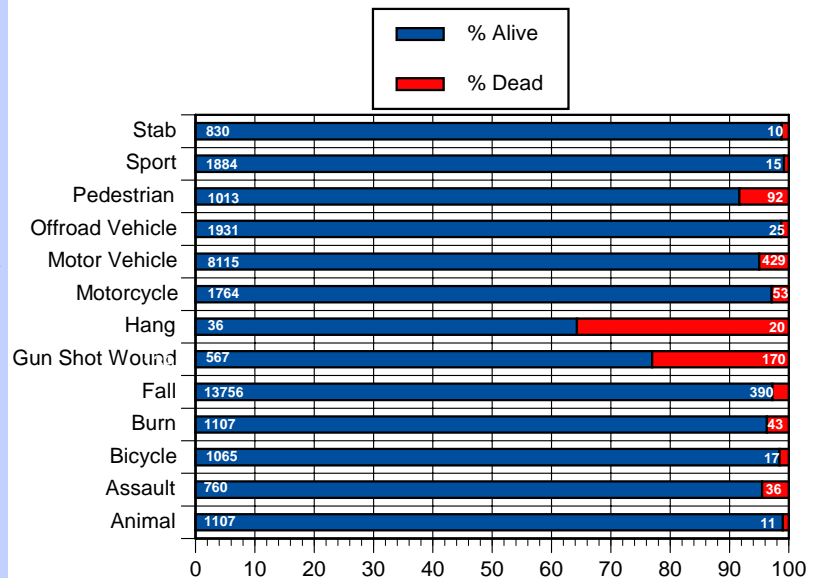


Figure 2 reports the relative percent alive/dead by cause. The total count alive and deaths from 2001-2005 are also reported below.



Are Patients Receiving Appropriate Trauma Care?

A component of the Utah Trauma System includes the designation of hospitals (based on capability) to ensure that seriously injured patients are transported quickly to hospitals with the appropriate resources and expertise necessary to treat a patient's specific injuries. Hospitals designated as "Level -1" can provide the highest level of care, often including areas of specialized care (e.g., burn care). Hospitals designated as "Level-2" can also provide appropriate care for most severe trauma. Level-3 or 4 centers often treat minor to moderate injuries and transfer severe injuries to a Level-1 or Level-2 center. Currently, many hospitals are seeking designation as a trauma center. **Figure 3** illustrates the number of patients treated at hospitals with differing levels of trauma designation, based on severity of injury. An injury severity score (ISS) provides an indication of the need for sophisticated trauma care. In general, a patient with an ISS score of 15 and higher indicates a more serious injury that should be treated at a designated Level-1 or Level-2 trauma center. However, transfer of seriously injured patients to a designated Level-1 or Level-2 trauma center does not always occur. As indicated by Figure 3, during 2001-2005, 2,644 patients (or 38% of all severe injuries) warranting care at a Level-1 or Level-2 center were treated in a non-designated hospital.

Who Pays for Severe Trauma in Utah?

The Utah Department of Health maintains statewide databases listing hospital charges associated with admissions for injury. Linking these data to patients contained within the Utah Trauma Registry indicates that approximately \$18 million is spent per year to treat patients suffering severe trauma within the state of Utah. These charges do not include physician fees, charges for laboratory testing, or rehabilitation costs. Who pays these charges? **Figure 4** illustrates the primary reported payer for patients included in the Registry. In total, governmental sources provide partial funding for approximately 15,000 trauma incidents, while commercial sources are listed as the primary payer for another 15,000 trauma incidents. More than 5,000 patients suffering severe trauma are not listed with a primary source of payment, other than themselves, and probably represent completely uncompensated care.

Figure 3 displays the proportion of more severe (ISS ≥ 15) and less severe (ISS < 15) trauma cases treated in different trauma level hospitals.

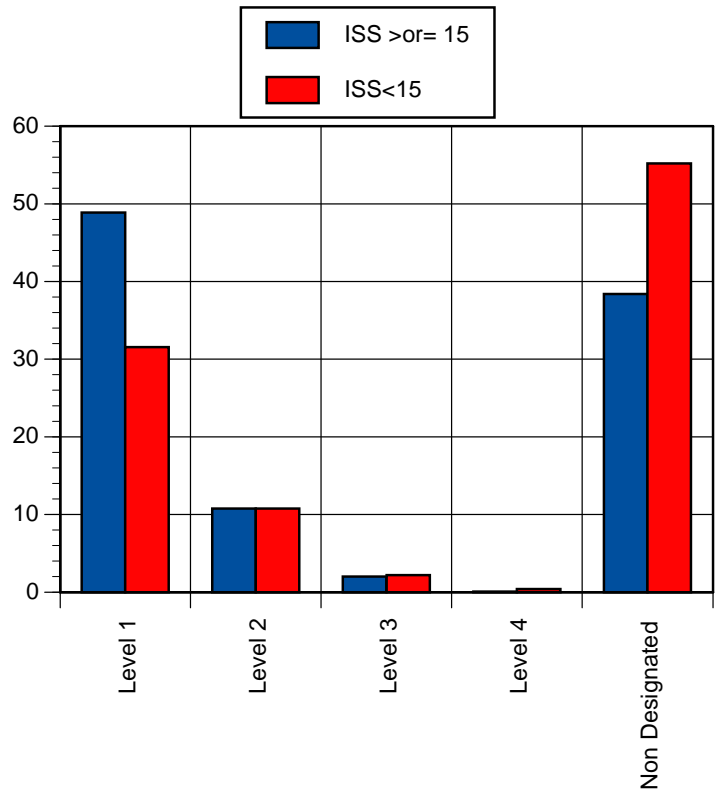


Figure 4 shows who is paying for the care of severe trauma occurring in Utah from 2001-2005.

