

Utah Trauma Update: *Recreational Water Injuries on the Rise*

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Utah Department of Health

Introduction

Utah may be known for the “Greatest Snow on Earth,” five national parks and its breathtaking mountains; but did you know that Utah is also home to some of the best lakes and reservoirs? Living in close proximity to Lake Powell, Jordanelle Reservoir, Utah Lake and Willard Bay, just a few of the many options, more and more Utahns are turning to the water for fun and relaxation. Unfortunately, with the popularity of motorized recreational water vehicles (such as boats and jet skis) as well as non-motorized water vehicles (such as canoes and kayaks), water-related injuries are on the rise in Utah.

The purpose of this fact sheet is to identify 1) current trends in water-related injuries and drowning deaths in Utah, 2) when and where these events occur, and 3) the severity of survivable injuries. Information regarding these injuries and deaths was obtained from the Utah State Trauma Registry and the Indicator-Based Information System for Public Health (IBIS-PH). The Utah Trauma Registry includes information for 100,545 seriously injured patients in the state of Utah from 2001 through 2011. IBIS provides statistical data as well as contextual information of the health status of Utahns and the state of Utah’s health care systems. The combination of these data allows us to compile and assess growing trends in the frequencies of water-related injuries, as well as the outcome of injuries caused by water-related events.

What Type of Injuries Occur?

Injury events resulting from water sports range from motorized boating incidents, diving accidents, injuries resulting from non-motorized watercraft (such as canoes and kayaks), some of which result in drowning. **Figures 1 & 2** display the growing trend in injury incidents stemming from water-related activities. Aside from trend variations due to lake water levels and other factors, the overall number of drowning deaths has increased in recent years. It is also evident that other water recreation injuries appear to be rising. While these data do not assess variations in exposure to water sports, findings do support an increase in the number of participants requiring medical treatment for injuries.

When do Water Recreation and Drowning Deaths Most Often Occur?

Most water related injuries in the state of Utah occur during the early to late summer months, with the most injuries (107) reported in July as shown in **Figure 3**. This can be explained by high temperatures in the summer, two observed holidays, vacations and the allure of readily accessible water sources.

Figure 1 Number of water related injuries by year (2001-2011)

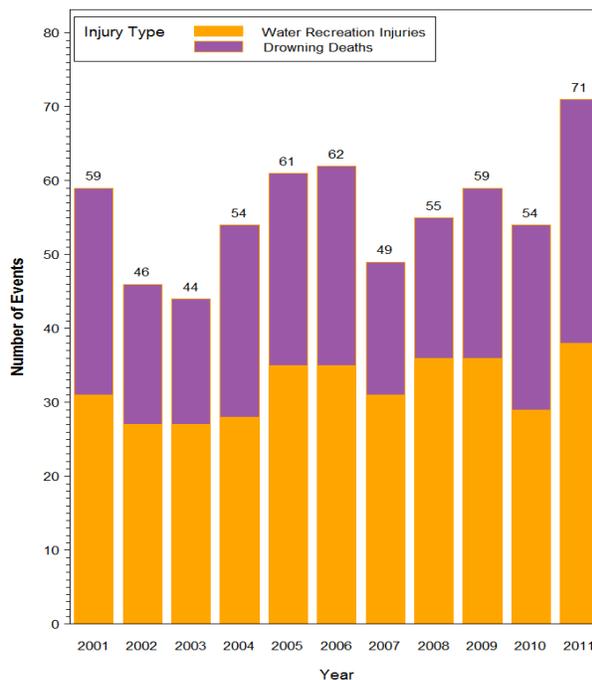
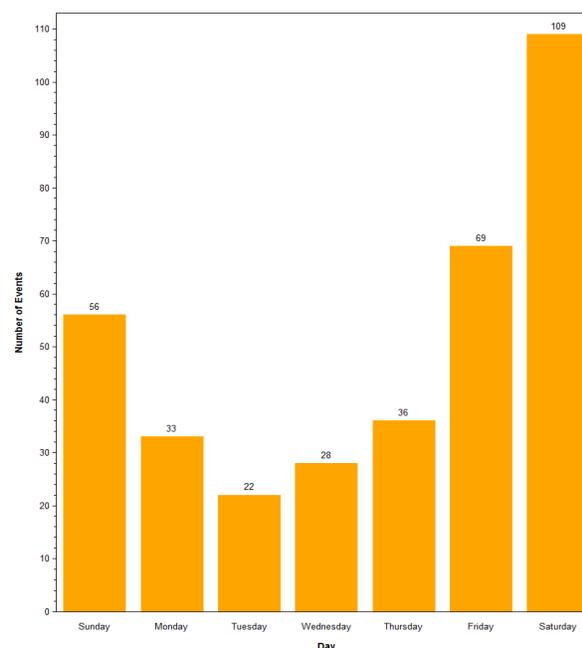


Figure 2 Number of water related injuries by day of the week (2001-2011)



While May, June and August also show increased frequencies of injuries, winter months produce relatively few events. Fridays and Saturdays have the highest number of injuries, as the weekends are when most residents turn to the water for fun and relaxation.

Severity of injury

While the severity of injuries can be difficult to measure, we compare injury severity for the three different types of injuries using the Injury Severity Scale. The Injury Severity Score (ISS) is a common standard used to define the seriousness of injuries suffered by people hospitalized for medical attention. An ISS score defines a patient's injury by ranking the severity of the three most prominent injuries for each patient. It correlates with mortality, morbidity and length of hospitalization after injury. An ISS score greater than 15 is considered to be a serious injury. Findings illustrated in **Figure 4** suggest that the bulk of injuries resulting from non-motorized sources are less severe than injuries resulting from motorized sports. Hospitalized injuries resulting from diving also tend to be more severe.

Conclusion

A substantial number of serious injuries and deaths result from water-related activities in Utah. Although water activities are extremely fun and can provide hours of amusement, it is critical to remember the importance of wearing protective devices, such as life jackets and other appropriate flotation devices. Utah state law requires water-craft passengers 12 years of age and younger to wear a properly sized and approved life jacket when a boat is in operation. When operating a personal watercraft (jet skis, wave runners, etc.), each person, regardless of age, must wear a properly sized and approved life jacket. Many boating fatalities occur because boaters aren't educated about boating safety. The Utah Boating Safety Certificate (also referred to as the Utah boating license) is required for all persons 12 to 17 years of age who wish to operate motorboats. Education about water safety is key to keeping everyone safe!

When participating in other water-related activities such as diving, swimming, kayaking; keeping safe is easy! Always let someone know when and where you will be, keep out of deep areas, swim with a buddy, avoid alcohol, and most importantly, think before you act!



Figure 3 Frequency of injuries by month (2001-2011)

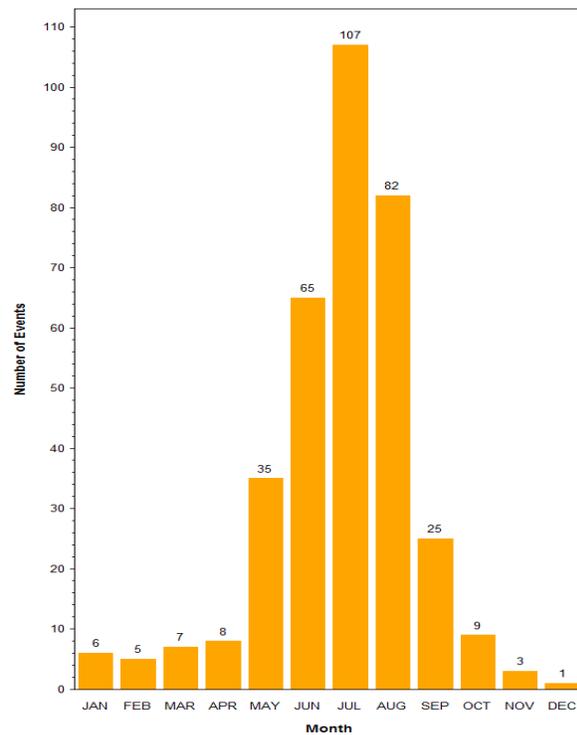


Figure 4 ISS Scores for Diving, Motorized Watercrafts, and Non Motorized Watercrafts Injuries

