

Utah Health Status Update:

Utah Statewide Trauma Registry

December 2005

Utah Department of Health

Welcome to the Utah Statewide Trauma Registry. The Registry contains medical and injury information about all patients who seek medical care for a serious injury. The registry formally began collecting information in 2001 from every hospital in the state. Since its inception, more than 7,000 serious injuries are recorded in the registry each year, including information regarding emergency transport and hospital treatment. 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.

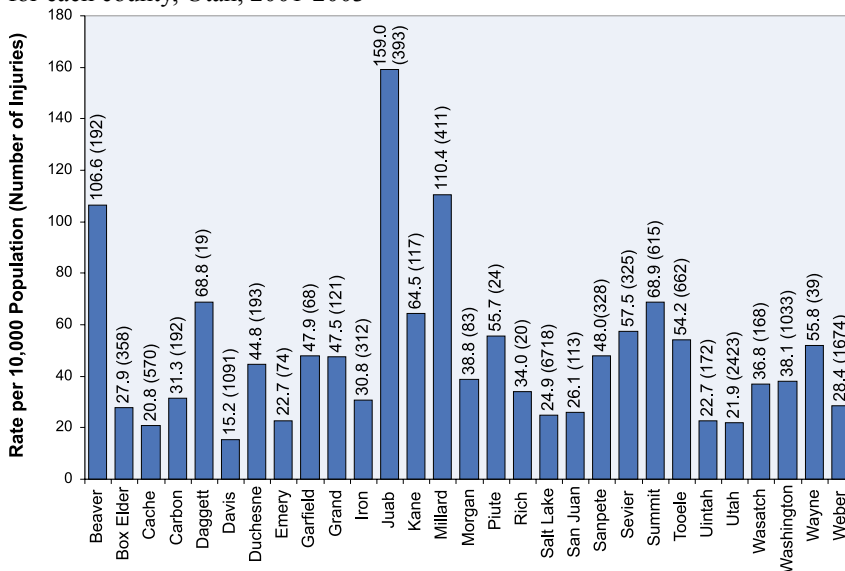
Figure 1 contains information from 21,773 injuries recorded in the Registry from 2001-2003. The figure indicates in which county these serious injuries occurred. Most injuries requiring intensive medical care occur along the Wasatch Front. However, a significant number of serious injuries occur in more rural regions including Cache, Juab, Millard, Summit, Tooele, and Washington counties. When considering county populations, residents and visitors of Beaver, Daggett, Juab, Kane, Millard, and Summit counties all demonstrated higher injury rates with more than 60 serious injuries per 10,000 residents per year.

What Are the Deadliest Mechanisms of Injury?

Figure 2 is designed to demonstrate two important points. First, the bulk of serious injuries are associated with a handful of mechanisms. Motor vehicle, motorcycle, and pedestrian injuries are all associated with vehicular crashes and represent a sizable portion of the injury events and deaths. Surprisingly, a large number of off-road vehicles are associated with serious injury.

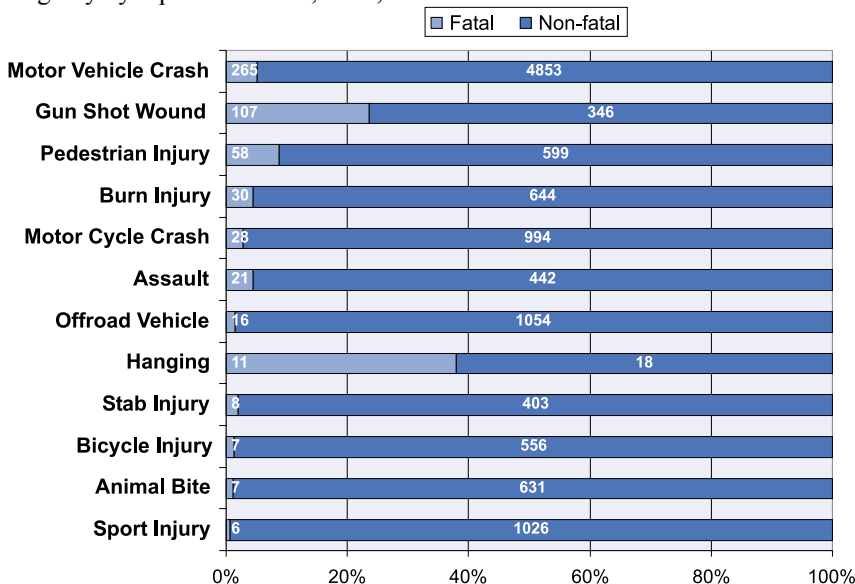
Trauma Registry Injuries by County

Figure 1. Rate (and number) of injuries recorded in the Utah Trauma Registry for each county, Utah, 2001-2003



Deadliest Mechanisms of Injury

Figure 2. Percentage distribution of injuries reported in the Utah Trauma Registry by top mechanisms, Utah, 2001-2003



Note: With the exception of assault, categories include all injuries regardless of intention.

The second important topic 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.

Are Patients Receiving the Most Appropriate Trauma Care?

An important component of injury care within Utah is the statewide Trauma System. The Utah Trauma System represents an organized process of designating 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 centers often treat minor to moderate injuries and transfer severe injuries to a Level-1 or Level-2 center.

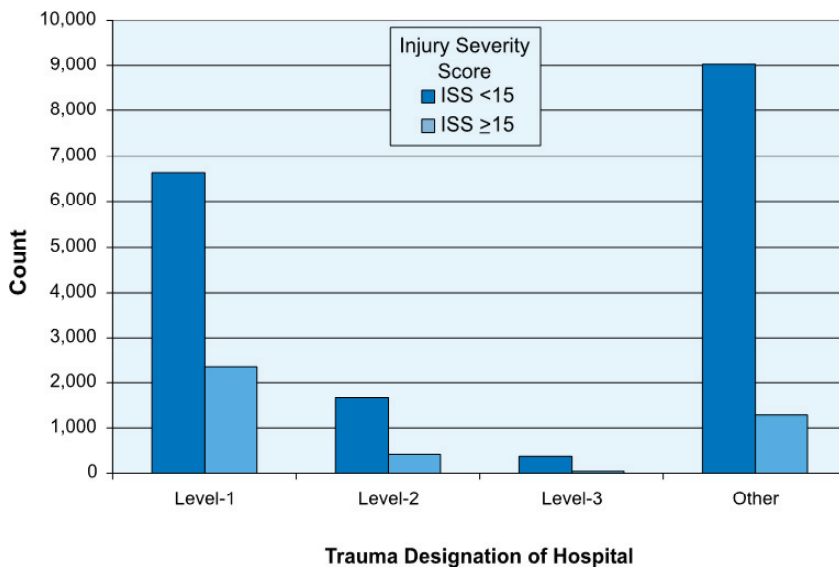
In Utah, six hospitals have voluntarily met criteria for trauma center designation. Figure 3 indicates the number of patients treated at hospitals with differing levels of trauma designation, based on severity of injury. An injury severity score (ISS) provides an indication of the need for sophisticated 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. As indicated by Figure 3, during 2001-2003, 1,286 patients (or 31% of all severe injuries) warranting care at a Level-1 or Level-2 center were treated in a non-designated trauma center.

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 funding for approximately 6,600 trauma incidents, while commercial sources are listed as the primary payer for about 11,200 trauma incidents. More than 2,500 patients suffering severe trauma do not list a source of payment, other than themselves.

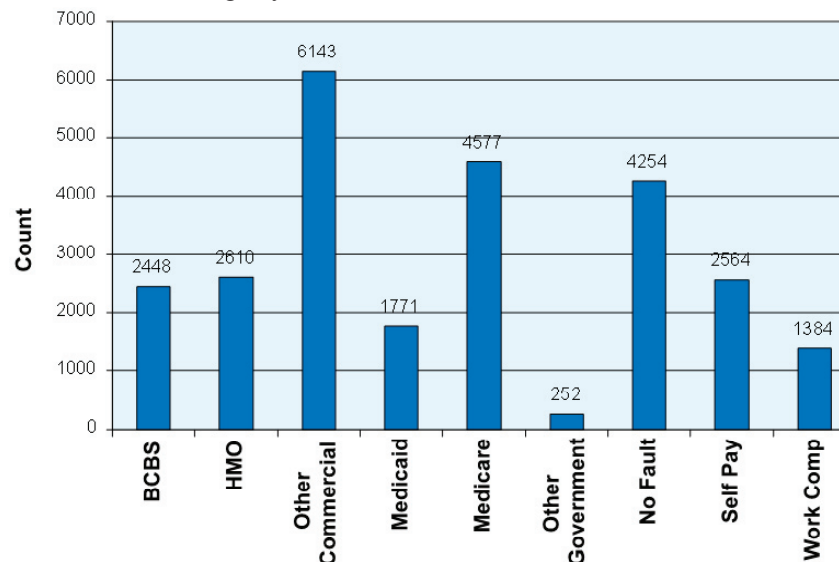
Trauma Center Level and Injury Severity Score

Figure 3. Number of injuries by trauma center level and injury severity score (ISS), Utah, 2001-2003



Injuries by Primary Reported Payer

Figure 4. Number of injuries by major categories of primary reported payer in the Utah Trauma Registry, Utah, 2001-2003



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Breaking News, November 2005

HMO Performance Report

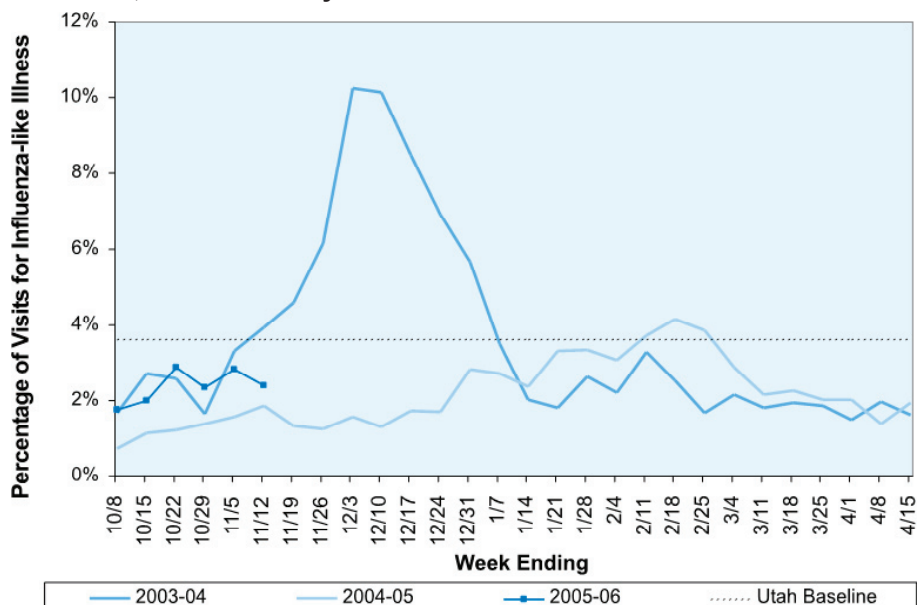
On November 29, the Utah Department of Health released *The 2005 Performance Report for Utah Commercial HMOs and Medicaid & CHIP Health Plans* report which measures the quality of performance and member satisfaction of selected Utah health plans. Results show that commercial HMOs are performing above national averages in the areas of appropriate medication for asthma and blood sugar testing in diabetics; while lower than national averages on breast cancer screening and controlling high blood pressure. Medicaid HMOs scored higher than national averages on childhood immunizations and prenatal care. However, Medicaid HMOs could improve on the frequency of chlamydia screenings in women ages 16-25. On the survey measures, Medicaid health plans scored at or higher than national averages in areas such as rating of health care, getting needed care, rating of personal physician, and courteous office staff. Commercial health plans performed near national averages in measures such as getting needed care and rating of health care but much lower in claims processing and rating of health plan.

Community Health Indicators Spotlight, November 2005

Influenza

Active influenza surveillance for the 2005-06 influenza season began during the first week of October. During this month, influenza activity has been low. The weekly proportion of patient visits to sentinel providers in Utah for influenza-like illness (ILI) has been below baseline values for this month. As of October 31, 2005, 1 influenza-associated hospitalization has been reported to UDOH.

Percentage of Visits for Influenza-Like Illness (ILI) Reported by Sentinel Providers, Utah Summary 2005-06 and Previous 2 Seasons



Monthly Health Indicators Report for October 2005

Monthly Report of Notifiable Diseases, October 2005		# Expected Cases (5-year average)	# Cases YTD	# Expected YTD (5-year average)	YTD Standard Morbidity Ratio (obs/exp)
	# Cases				
Campylobacteriosis (Campylobacter)	32	21	243	244	1.0
Escherichia coli (E. coli) 0157:H7	2	10	40	76	0.5
Hepatitis A (infectious hepatitis)	1	4	18	46	0.4
Hepatitis B (serum hepatitis)	2	5	35	34	1.0
Influenza	For the most up-to-date information on influenza in Utah, visit http://health.utah.gov/epi/diseases/flu				
Measles (Rubeola, Hard Measles)	0	0	0	1	0.0
Meningococcal Diseases	1	0	11	6	1.8
Norovirus	0	0*	27	4*	6.8
Pertussis (Whooping Cough)	74	14	525	96	5.5
Salmonellosis (Salmonella)	23	32	364	250	1.5
Shigella	6	6	42	48	0.9
Varicella (Chickenpox)	41	51*	457	404*	1.1
Viral Meningitis	27	21	228	108	2.1
West Nile (Human cases / Equine cases)	2 / 7	0* / 5*	52 / 68	6* / 20*	8.7 / 3.4

Notifiable Diseases Reported Quarterly, 3rd Qtr 2005		# Expected Cases (5-year average)	# Cases YTD	# Expected YTD (5-year average)	YTD Standard Morbidity Ratio (obs/exp)
	# Cases				
HIV	31	14	73	44	1.7
AIDS	12	13	33	49	0.7
Chlamydia	1,093	874	3,264	2,231	1.5
Gonorrhea	185	98	511	246	2.1
Tuberculosis	12	13	26	29	0.9

Program Enrollment for the Month of October 2005		Current Month	Previous Month	% Change From Previous Month	1 Year Ago	% Change From 1 Year Ago
Medicaid		177,992	179,041	-0.6%	171,768	+3.6%
PCN (Primary Care Network)		15,476	16,123	-4.0%	15,079	+2.6%
CHIP (Children's Health Ins. Plan)		33,263	32,112	+3.6%	26,057	+27.7%

Program Expenditures for the Month of October 2005		Expected/ Budgeted for Month	Fiscal YTD	Budgeted Fiscal YTD	Variance - over (under) budget
	Monthly				
Ambulatory and Other Care	\$ 668,552	\$ 720,800	\$ 1,978,046	\$ 2,030,290	(\$ 52,244)
Fee for Service Hospital Inpatient	\$ 17,329,004	\$ 16,882,500	\$ 50,807,058	\$ 50,360,550	\$ 446,508
Long Term Care	\$ 13,680,482	\$ 13,280,340	\$ 52,780,897	\$ 52,380,750	\$ 400,147
Pharmacy	\$ 20,402,101	\$ 21,781,170	\$ 70,337,308	\$ 71,716,380	(\$ 1,379,072)

Health Care System Measures	Current Data Year	Number of Events	Percentage of Utah Population	% Change From Previous Year	Total Charges in Millions	% Change From Previous Year
Overall Hospitalizations	2004	266,195	10.1%	-0.3%	\$ 3,225.0	+11.1%
Non-maternity Hospitalizations	2004	160,302	5.9%	0.0%	\$ 2,692.5	+12.0%
Emergency Department Encounters	2003	638,478	25.2%	+1.0%	\$ 397.8	+18.3%
Outpatient Surgery	2003	279,874	11.1%	+5.6%	\$ 731.2	+17.4%

Annual Community Health Measures	Current Data Year	Population at Risk	Number Affected	Percentage/Rate	Previous Year Rate	% Change From Previous Year
Overweight and Obesity (Adults 18+)	2004	1,698,118	957,739	56.4%	54.7%	+3.1%
Cigarette Smoking (Adults 18+)	2004	1,698,118	178,302	10.5%	11.9%	-11.8%
Influenza Immunization (Adults 65+)	2004	207,920	156,980	75.5%	74.8%	+0.9%
Health Insurance Coverage (Uninsured)	2004	2,469,230	251,861	10.2%	9.11%	+12.0%
Motor Vehicle Crash Injury Deaths	2004	2,469,230	298	12.1 / 100,000	11.6 / 100,000	+4.3%
Suicide Deaths	2004	2,469,230	377	15.3 / 100,000	13.9 / 100,000	+10.1%
Diabetes Prevalence	2004	2,469,230	93,831	3.8%	3.7%	+2.7%
Coronary Heart Disease Deaths	2004	2,469,230	1,603	64.9 / 100,000	70.6 / 100,000	-8.1%
All Cancer Deaths	2004	2,469,230	2,442	98.9 / 100,000	100.9 / 100,000	-2.0%
Births to Adolescents (Ages 15-17)	2004	57,505	854	14.9 / 1,000	16.0 / 1,000	-6.9%
Early Prenatal Care	2004	50,653	39,521	78.0%	78.0%	0.0%
Infant Mortality	2004	50,653	262	5.2 / 1,000	5.0 / 1,000	+4.0%
Childhood Immunization (4:3:1:3:3)	2004	48,619	34,665	71.3%	78.8%	-9.5%

* Due to limited historical data, the average is based upon 2 years of data for norovirus, varicella, and West Nile virus.

Note: % Change could be due to random variation