

# Utah Health Status Update:

## Geographic Injury Patterns

August 2009

Utah Department of Health

Although many injuries are preventable, injuries are still the leading cause of death for persons age 1 to 44 in the U.S. and Utah.<sup>1</sup> While injury data have long existed at state and local health district levels, data are now available for major injury causes in Utah's 61 small areas.<sup>2</sup> In an effort to reduce the number of injuries among Utah residents, the Violence and Injury Prevention Program is anticipating the release of the *Utah Violence and Injury Small Area Report*.<sup>3</sup> It is the first report to consolidate 17 violence and injury related indicators for Utah's 61 small areas into a single source.

The report highlights geographic variations found at the U.S., Utah, local health district, and small area level for each of the violence and injury indicators. For example, the rates of fall-related hospitalizations, poison fatalities, self-inflicted injury emergency department visits, and suicide fatalities were statistically higher in Utah compared to the U.S. (Table 1). Within the ten small areas in the Utah County Local Health District (LHD), the rate of fall-related hospitalizations varied from a low of 13.8 to a high of 43.5 per 10,000 persons. For the four small areas in the Southwest Utah Health District, the rate of motor vehicle crash fatalities varied from a low of 7.3 to a high of 28.1 per 100,000 persons. There was a 10-fold difference in the assault-related injury rate and an eight-fold difference in the motor vehicle crash fatality rate between the small area with the lowest and highest rate (Table 1). Identifying these geographic injury patterns is essential to focusing prevention and intervention efforts at the local level. Fall-related hospitalizations and motor vehicle crash (MVC) fatalities showed distinct geographic injury patterns and are featured in this Health Status Update.\*

Falls are the most common cause of injury hospitalization and the second leading cause of unintentional injury death for Utahns aged 65

### Violence and Injury Indicators

Table 1. Utah violence and injury small area indicators by U.S., Utah, and small area (age-adjusted)

Utah Violence and Injury Small Area Indicator	U.S. Rate	State Rate	Small Area Rate	
			Lowest	Highest
Assault-related Injuries 2006*	49.6	16.6	5.4	56.6
Child Injury Fatalities 2003–2007†	--	16.0 <sup>§</sup>	7.7 <sup>‡</sup>	39.3 <sup>‡</sup>
Falls: Self-reported 2003, 2006*	14.3	15.3	5.5	24.1
Falls: Hospitalizations 2006*	20.2	23.9	11.1	43.5
MV Self-reported Seatbelt Usage 2002, 2006*	91.5	91.9	79.4 <sup>‡</sup>	96.9 <sup>‡</sup>
MV Crash: ED Visits 2006*	99.4	77.2	34.1	118.3
MV Crash: Hospitalizations 2006*	8.1	6.3	1.9	10.8
MV Crash: Fatalities 2003–2007†	14.6	11.9	3.7 <sup>‡</sup>	30.7
Poison Fatalities 2005–2007†	11.0	20.0	9.3 <sup>‡</sup>	60.7
Self-inflicted Injury: ED Visits 2006*	4.1	10.2	3.2	20.9
Self-inflicted Injury: Hospitalizations 2005–2006*	5.3	4.6	1.5	9.6
Suicide Fatalities 2003–2007†	10.9	15.3	5.1	27.8
Student Injuries 2006–2007†	--	11.4 <sup>§</sup>	5.8	21.3
Traumatic Brain Injuries 2001–2005*	--	6.7	4.4	15.7
Unintentional Injury: ED Visits 2006*	862.4	622.9	295.6	1390.5
Unintentional Injury: Hospitalizations 2006*	43.3	43.0	25.2	68.6
Unintentional Injury: Fatalities 2005–2007†	38.1	31.9	11.4	67.8

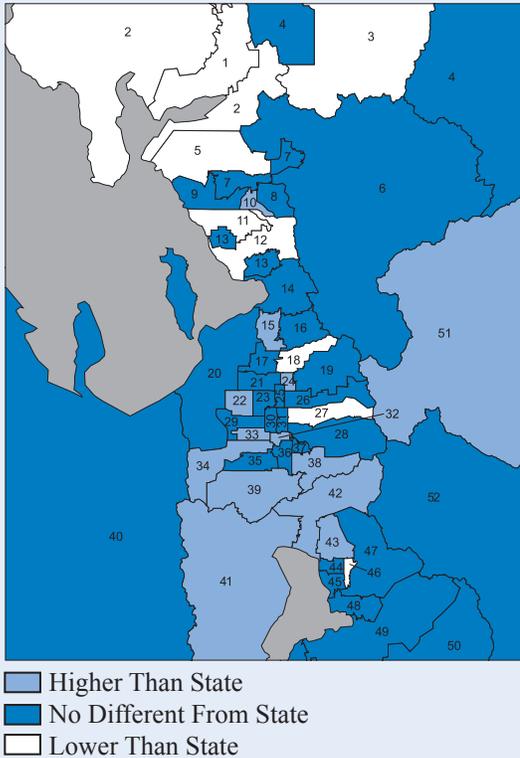
\*Rate is per 10,000 population. †Rate is per 100,000 population. ‡Rate is per 1,000 public school students. §Crude rate.  
 †Use caution when interpreting the results, the estimate may be unreliable.

and older. Utah's age-adjusted rate of fall hospitalization was statistically higher than the U.S. rate (23.9 and 20.2 per 10,000 population) (Table 1). Among Utah small areas, Lehi/Cedar Valley had the highest age-adjusted fall hospitalization rate at 43.5 per 10,000 population. Twelve other small areas had significantly higher age-adjusted rates than the state rate, the majority of which were concentrated in the lower part of the Wasatch Front (Figure 1). Brigham City had the lowest age-adjusted fall hospitalization rate at 11.1 per 10,000 population. Eleven other small areas had significantly lower age-adjusted rates than the state rate, the majority of which were concentrated in the upper part of the Wasatch Front (Figure 1). When the percentage of self-reported falls for Utah's 61 small areas was compared with unintentional fall hospitalizations in the same areas, small areas with higher self-reported falls tended to have higher unintentional fall hospitalizations ( $R=.28$ ,  $p<.0001$ ).

Utah's age-adjusted state rate for MVC fatalities was 11.9 per 100,000 population which is lower than the U.S. rate of 14.6 per 100,000 population (Table 1). Among Utah small areas, Grand/San Juan Counties had the highest age-adjusted MVC fatality rate at 30.7 per 100,000 population. Seven other small areas had significantly higher age-adjusted MVC fatality rates than the state rate. High MVC fatality rates were commonly found in rural small areas compared to urban small areas (Figure 2). West Orem had the lowest age-adjusted MVC fatality rate at 3.7\*\* per 100,000 population. Nine other small areas had

## Fall Hospitalizations

Figure 1. Fall hospitalizations by small area, Wasatch Front, 2006 (age-adjusted)<sup>2</sup>



significantly lower age-adjusted MVC fatality rates than the state rate, the majority of which were concentrated in the urban small areas of Davis County (Figure 2). Small areas with higher self-reported seatbelt use tended to have lower rates of MVC fatalities and areas with lower seatbelt use tended to have higher rates of MVC fatalities ( $R=.42$ ,  $p<.0001$ ).

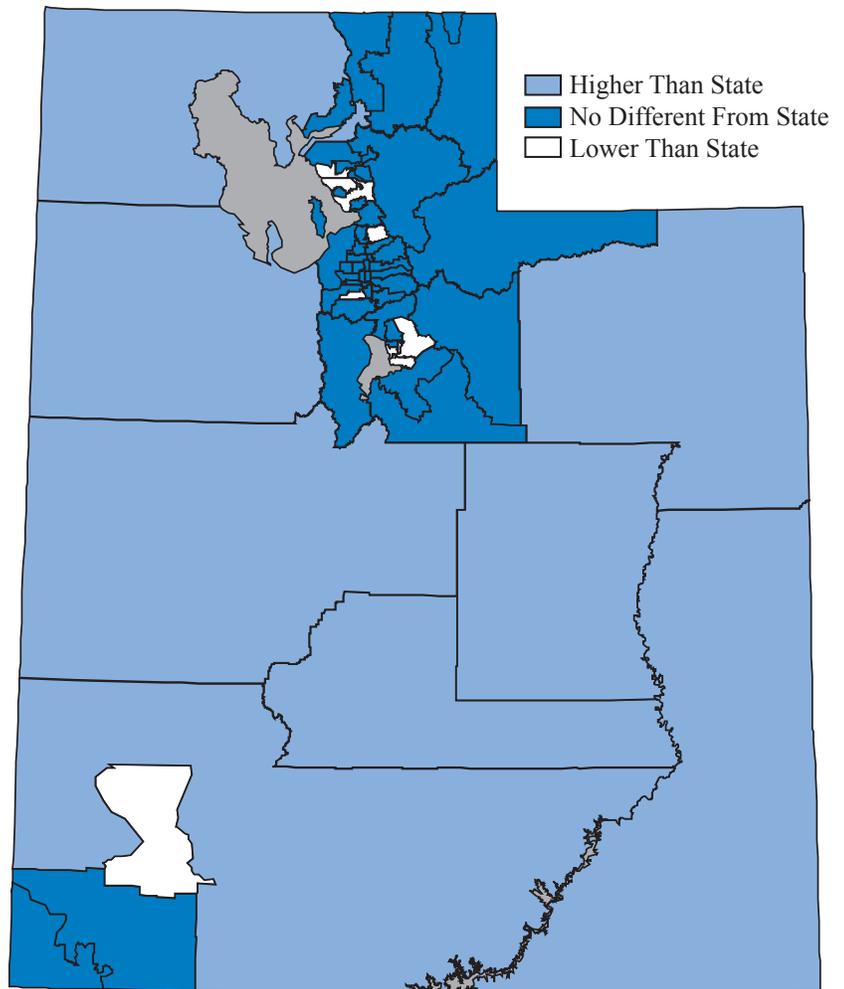
As the cost of injuries continues to rise each year, small area data can help determine how to best allocate limited resources to communities in greatest need. Using small areas as the basic level of analysis will strengthen prevention programs and reduce costs by tying specific issues to a targeted small area.

\*Area designation was based on residence and not where the injury occurred.

\*\*Use caution when interpreting results, the estimate may be unreliable.

## Motor Vehicle Crash Fatalities

Figure 2. Motor vehicle crash fatalities by small area, Utah, 2003–2007 (age-adjusted)<sup>2</sup>



## References

1. Centers for Disease Control and Prevention (CDC). Web-based Injury Statistics Query and Reporting System (WISQARS) [Online]. (2008). National Center for Injury Prevention and Control, CDC (producer). [cited 2009 Feb 10]. 2005 Data Year. Available from URL: [www.cdc.gov/ncipc/wisqars](http://www.cdc.gov/ncipc/wisqars).
2. Utah's 61 Small Areas. Available from URL: <http://ibis.health.utah.gov/query/Help.html>
3. Violence and Injury Small Area Report. Available from URL: <http://health.utah.gov/vipp> (Fall 2009).

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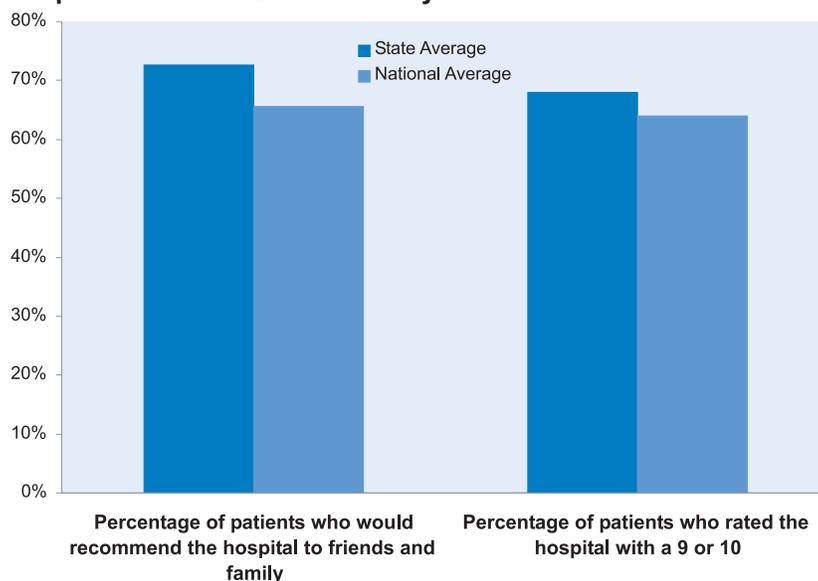
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## Breaking News, July 2009

### Hospital Consumer Satisfaction

The Utah Health Data Committee is committed to provide information that is important to consumers in order to make informed decisions regarding their health care. Recently, a survey was developed by the Centers for Medicare and Medicaid Services (CMS) and the Agency for Healthcare Research and Quality (AHRQ). This survey measures how people feel about their recent hospital visit. The survey is the Hospital Consumer Assessment of Healthcare Provider and Systems (HCAHPS). This survey asks patients questions on many different aspects of a hospital visit, including: nurse and doctor communication; hospital staff; how clean and quiet the room was; pain management; information about medicine; overall rating of the hospital; and would the patient recommend the hospital. The data from this report was obtained from CMS in March of 2009.

### Responses to the HCAHPS Survey



Utah hospitals have scored quite well compared to the national average. Utah has scored above the national average on 7 of the 10 measures publicly reported. More Utahns rated their hospitals with a 9 or a 10 than the national average. In addition, on average Utahns would recommend their hospital to friends and family.

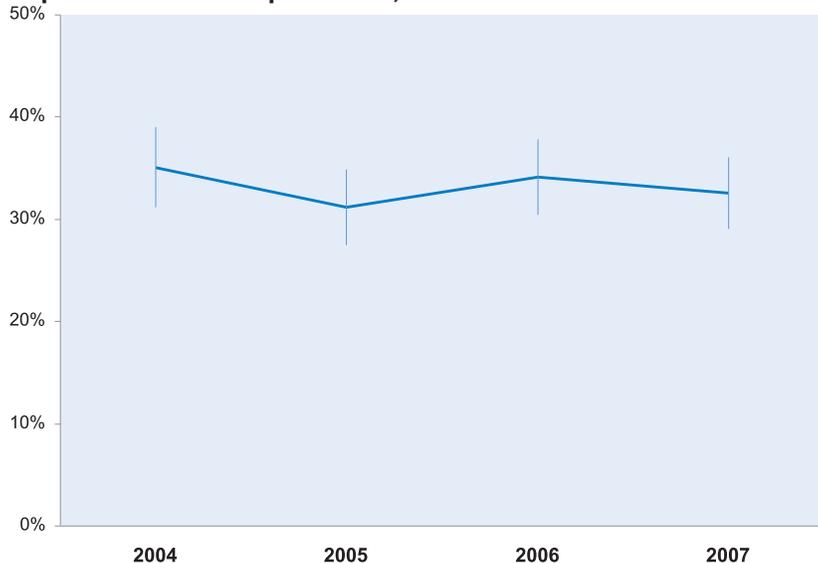
## Community Health Indicators Spotlight, July 2009

### Preconception Visits

Improving a woman's health prior to conception can improve pregnancy outcomes. In April 2006, the CDC published recommendations for improving preconception health and health care. This report outlined risk factors where there is evidence that preconception health care would be effective in improving outcomes as well as ten recommendations for improving women's health. Among these recommendations is that maternity care include one prepregnancy visit for couples and persons planning a pregnancy. In 2004, the Utah Pregnancy Risk Assessment Monitoring System (PRAMS) added the following question: "Before you got pregnant with your new baby, did you talk with a doctor, nurse, or other health care worker to prepare for a healthy pregnancy and baby?" Rates of preconception visits have remained steady from 2004 through 2007 and preliminary data from 2008 does not appear to show an increase (data not shown).

A major barrier to women not seeking a preconception visit is lack of health insurance coverage prior to pregnancy. In 2008, 14.4% of Utah women of reproductive age (18–49) were without health insurance which equates to over 90,000 women. Another barrier is lack of knowledge of the importance of being at optimal health prior to pregnancy. The Utah Department of Health has received a grant from the Health Services Resource Administration's Maternal and Child Health Bureau to promote pre and interconception health and healthcare. The Department is in the planning stages of launching a statewide Social Marketing campaign to educate women and their partners about this important issue.

### Percentage of Women Who Were Trying to Become Pregnant Who Reported a Preconception Visit, 2004–2007 PRAMS data



# Monthly Health Indicators Report

(Data Through June 2009)

<b>Monthly Report of Notifiable Diseases, June 2009</b>	Current Month # Cases	Current Month # Expected Cases (5-yr average)	# Cases YTD	# Expected YTD (5-yr average)	YTD Standard Morbidity Ratio (obs/exp)
Campylobacteriosis (Campylobacter)	27	41	120	139	0.9
Enterotoxigenic Escherichia coli (E. coli)	12	10	27	25	1.1
Hepatitis A (infectious hepatitis)	0	1	3	11	0.3
Hepatitis B (serum hepatitis)	0	2	4	13	0.3
Measles (Rubeola, Hard Measles)	0	0	0	0	--
Meningococcal Diseases	0	0	1	5	0.2
Norovirus	0	0	6	9	0.7
Pertussis (Whooping Cough)	11	30	99	210	0.5
Salmonellosis (Salmonella)	31	28	133	144	0.9
Shigellosis (Shigella)	1	3	13	17	0.7
Varicella (Chickenpox)	19	24	334	451	0.7
Viral Meningitis	2	8	12	33	0.4
West Nile (human cases)	0	0	1	1	1.7
<b>Notifiable Diseases Reported Quarterly, 2nd Qtr 2009</b>	Current Quarter # Cases	Current Quarter # Expected Cases (5-yr average)	# Cases YTD	# Expected YTD (5-yr average)	YTD Standard Morbidity Ratio (obs/exp)
HIV	17	23	39	42	0.9
AIDS	10	10	23	23	1.0
Chlamydia	1,545	1,221	3,281	2,488	1.3
Gonorrhea	84	175	180	354	0.5
Tuberculosis	9	8	20	17	1.2
<b>Program Enrollment for the Month of June 2009</b>	Current Month	Previous Month	% Change <sup>s</sup> From Previous Month	1 Year Ago	% Change <sup>s</sup> From 1 Year Ago
Medicaid	195,257	193,426	+0.9%	164,119	+19.0%
PCN (Primary Care Network)	24,103	22,453	+7.3%	18,505	+30.3%
CHIP (Children's Health Ins. Plan)	40,742	39,960	+2.0%	35,060	+16.2%

<b>Medicaid Expenditures (in Millions) for the Month of June 2009</b>	Current Month	Expected/Budgeted for Month <sup>x</sup>	Fiscal YTD	Budgeted Fiscal YTD <sup>y</sup>	Variance -over (under) budget <sup>z</sup>
Capitated Mental Health	\$ 14.9	N/A	\$ 112.2	N/A	N/A
Inpatient Hospital	\$ 17.8	N/A	\$ 221.7	N/A	N/A
Outpatient Hospital	\$ 11.1	N/A	\$ 100.3	N/A	N/A
Long Term Care	\$ 27.0	N/A	\$ 191.9	N/A	N/A
Pharmacy	\$ 10.3	N/A	\$ 126.6	N/A	N/A
Physician/Osteo Services <sup>‡</sup>	\$ 6.9	N/A	\$ 80.1	N/A	N/A
TOTAL HCF MEDICAID	\$ 148.8	N/A	\$ 1,599.8	N/A	N/A
<b>Health Care System Measures</b>	Number of Events	Rate per 100 Population	% Change <sup>s</sup> From Previous Year	Total Charges in Millions	% Change <sup>s</sup> From Previous Year
Overall Hospitalizations (2007)	278,952	9.7%	-0.7%	\$ 4,265.9	+10.1%
Non-maternity Hospitalizations (2007)	164,659	5.6%	-0.9%	\$ 3,554.6	+9.9%
Emergency Department Encounters (2007)	682,122	24.0%	-1.3%	\$ 781.0	+17.1%
Outpatient Surgery (2007)	296,596	10.5%	-5.7%	\$ 1,109.0	+8.6%
<b>Annual Community Health Measures</b>	Current Data Year	Population at Risk	Number Affected	Percent/Rate	% Change <sup>s</sup> From Previous Year
Overweight and Obesity (Adults 18+)	2008	1,924,274	1,119,500	58.2%	+0.5%
Cigarette Smoking (Adults 18+)	2008	1,924,274	179,200	9.3%	-20.4%
Influenza Immunization (Adults 65+)	2008	237,275	173,900	73.3%	-3.8%
Health Insurance Coverage (Uninsured)	2008	2,781,954	298,200	10.7%	+0.7%
Motor Vehicle Crash Injury Deaths	2007	2,699,554	269	10.0 / 100,000	-12.0%
Suicide Deaths	2007	2,699,554	368	13.6 / 100,000	-0.1%
Diabetes Prevalence	2008	2,781,954	129,500	4.7%	-1.0%
Coronary Heart Disease Deaths	2007	2,699,554	1,531	56.7 / 100,000	-5.1%
All Cancer Deaths	2007	2,699,554	2,547	94.3 / 100,000	-5.1%
Births to Adolescents (Ages 15-17)	2007	61,060	1,133	18.6 / 1,000	+13.5%
Early Prenatal Care	2007	55,063	43,728	79.4%	+0.5%
Infant Mortality	2007	55,063	284	5.2 / 1,000	+2.5%
Childhood Immunization (4:3:1:3:3:1)	2007	51,449	40,200	78.1%	+14.7%

§ % Change could be due to random variation.

<sup>x</sup> Determination on tier 1 and tier 2 unemployment enhancements and the ARRA rate differentials for the the school districts are still being decided. For these two reasons the total Medicaid Budget amounts are not ready to be released.

<sup>‡</sup> Medicaid payments reported under Physician/Osteo Services do not include enhanced physician payments.

Notes: Data for notifiable diseases are preliminary and subject to change upon the completion of ongoing disease investigations. Active surveillance for influenza has ended until the 2009 season.