

# Utah Health Status Update:

## Healthcare Associated Infection Reporting in Utah, 2007

October 2007

Utah Department of Health

Healthcare acquired infections result in an estimated 90,000 deaths each year in the United States and account for at least \$4.5 billion in excess healthcare costs annually. Each year, one in ten hospitalized patients, more than 2 million Americans, acquire an infection after hospital admission.

Applying the above incidence rate to the state of Utah, the estimated number of infections based on 2006 hospital discharges (255,199) would indicate that approximately 25,500 patients acquired an infection after admission, 725 of whom (2.84 cases per 1,000 admissions) may have experienced mortality/morbidity, and for an annual cost to the state of close to \$2 million.

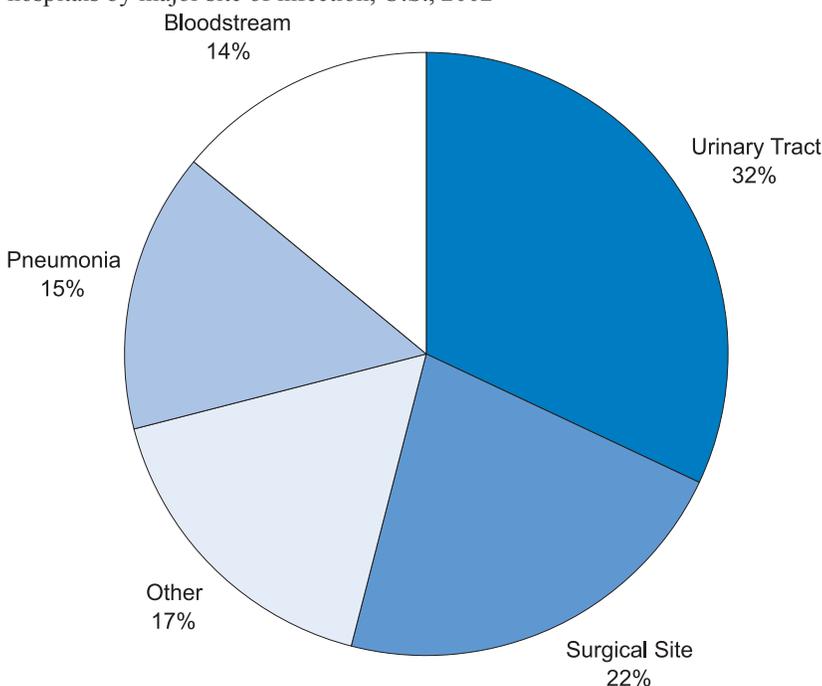
A recent *Public Health Reports* article provided estimates for the percentage of each type of healthcare associated infection (HAI) in U.S. hospitals (Figure 1). The majority of HAIs were urinary tract infections, followed by surgical site infections. While blood stream infections accounted for the smallest percentage, a CDC report indicates that these infections are responsible for 31% of the HAI deaths.

To reduce rates of HAI, the Advisory Committee on Immunization Practices recommends annual influenza immunization of health care workers, that measures be taken to increase health care worker immunization rates, and that those rates be used as a measure of the quality of a patient safety program.

Many states (18 to date) are taking some sort of legislative or regulatory action for public reporting. Infection Control professionals from Utah hospitals have been meeting with the Utah Department of Health, Utah Hospital Association, and Health Insight over the past 18 months to craft a reporting rule that will begin to address the rates of infections in Utah hospitals and yield meaningful data in order to develop improvement strategies in the future. Rule 386-705 Epidemiology, Health Care Associated Infection was sent to Administrative Rules for publication September 2007. After a 30 day publication period and if there are no

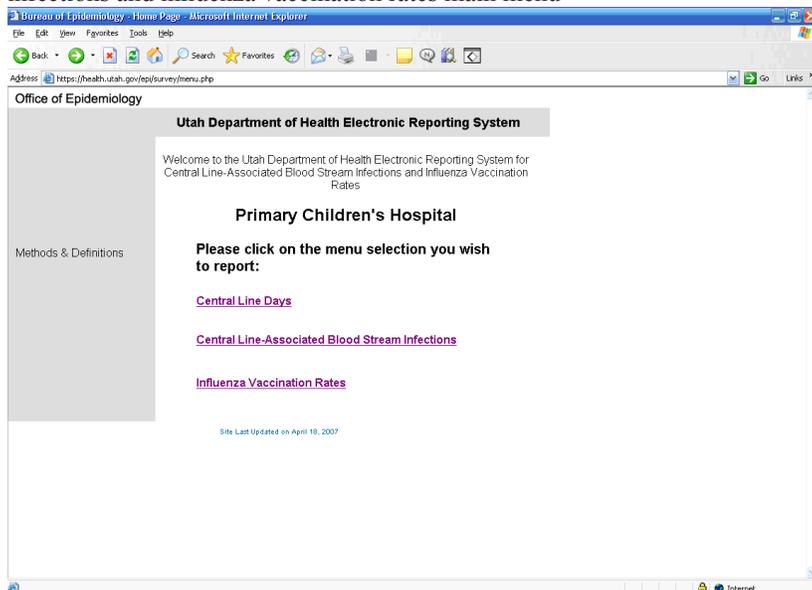
### U.S. Healthcare Associated Infections by Major Site

Figure 1. Estimated percentage of healthcare-associated infections in U.S. hospitals by major site of infection, U.S., 2002



### Main Menu

Figure 2. UDOH electronic reporting system for central-line associated infections and influenza vaccination rates main menu



substantial changes, the rule will become effective. This rule establishes the reporting mechanism to begin tracking healthcare acquired infec-

tions. Specifically the rule focuses on Central Line Associated Blood Stream Infections and influenza immunization rates of hospital and long term care employees. The rule defines the facilities and units within those facilities responsible for reporting, the infectious organisms, and the specific classification of blood stream infections. It also defines the reporting periods and mechanisms for reporting immunization information.

Currently, the Utah Department of Health (Bureau of Epidemiology) has created an on-line reporting system for reporting central-line associated infections and influenza vaccination rates. It is expected that infection control practitioners will use the system for reporting. The site is secure and password protected. Only each facility may view and enter data. The Bureau of Epidemiology will be able to view all data, but not enter any. It is expected that this system will be fully functional in the 2007 fall.

**References:**

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Klevens, R.M., Edwards, J.R., Richards, C.L., Horan, T.C., Gaynes, R.P., Pollock, D.A., Cardo, D.M., "Estimating Health Care-Associated Infections and Deaths in U.S. Hospitals, 2002," Public Health Reports, 122: 160-166.

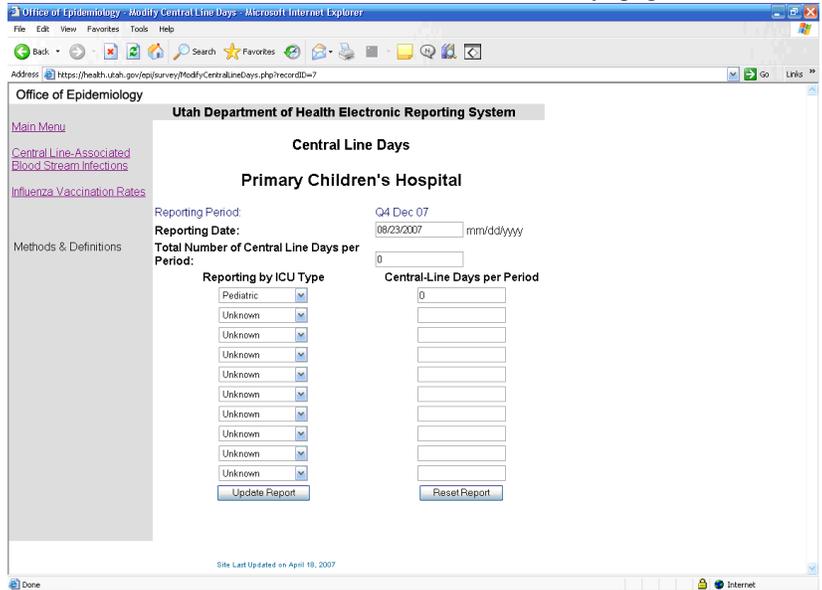
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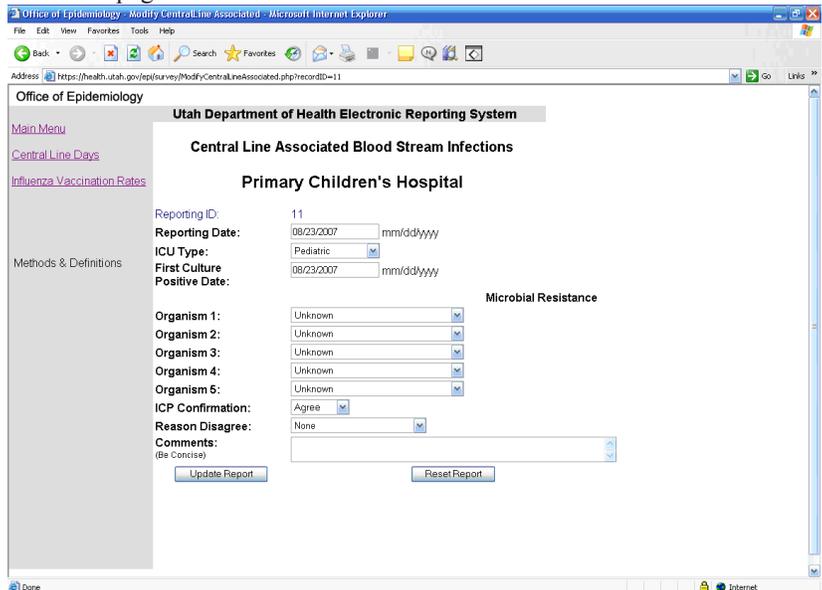
**Central Line Days**

Figure 3. UDOH electronic reporting system for central-line associated infections and influenza vaccination rates central line days page



**Central Line Associated Blood Stream Infections**

Figure 4. UDOH electronic reporting system for central-line associated infections and influenza vaccination rates central line associated blood stream infections page



**October 2007**

**Utah Health Status Update**

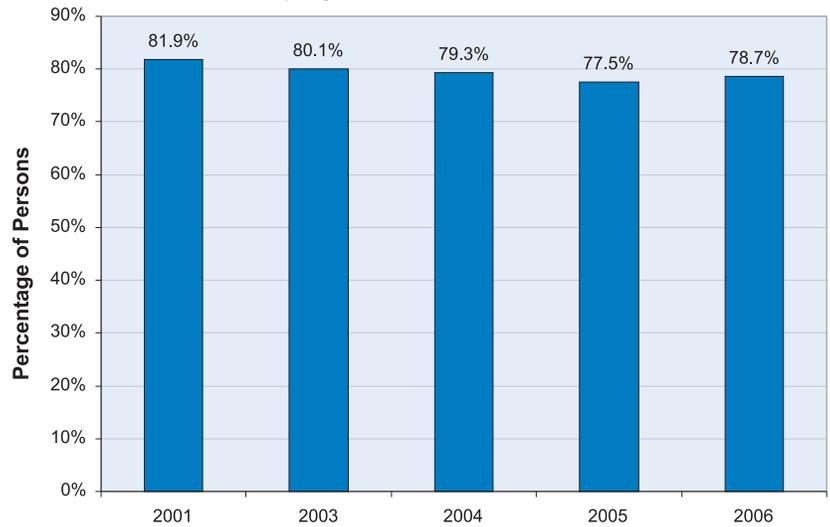
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## Breaking News, September 2007

### Rising Cost of Health Insurance

According to the National Federation of Independent Business, rising “health-care costs have been the number one issue facing small business owners since 1986.” As health care costs rise, small businesses end up with fewer choices in determining how to provide a health care benefit to their employees. The end result for an increasing number of firms is to not offer health insurance as a paid benefit of employment. In Utah, health insurance premiums rose an average of about 7% from 1999 to 2005 compared to an average increase in workers earnings of about 3% over the same time period. The fraction of the insured population that gets health insurance through their employer has fallen from 81.9% in 2001 to 78.7% in 2006. The rising cost of health insurance remains a key issue for Utah’s small businesses.

**Percentage of Insured Utahns With Health Insurance Through a Current or Former Employer or Union, 2001 and 2003-2006**



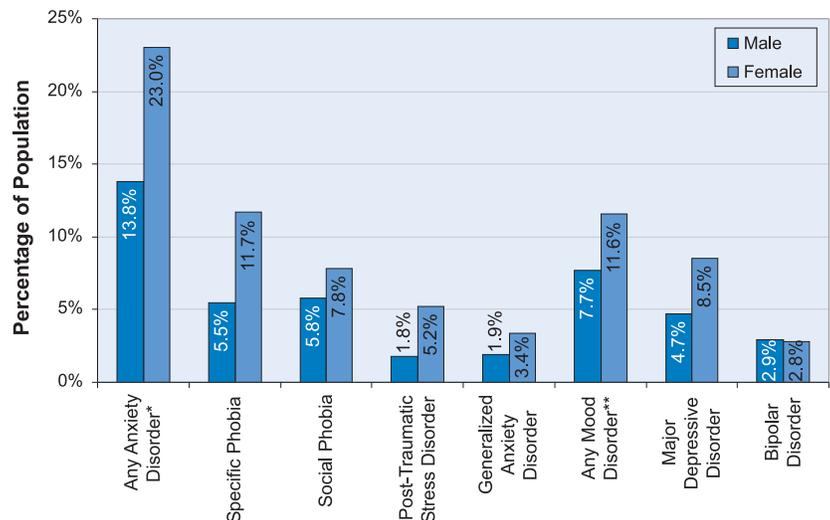
Source: Utah Health Status Survey

## Community Health Indicators Spotlight, September 2007

### Women and Mental Health

Past research on mental health disorders among women has often focused on the link between childbirth and mental health. Information is now available to show that numerous factors influence the mental health of women. Women experience mental health problems at higher rates than men. In a national 2003 U.S. Department of Health and Human Services, Health Resources and Services Administration survey, researchers studying mental health disorders found that women suffer from depression and anxiety at rates almost twice those of men (see Figure). In addition, findings indicated that the depression and anxiety experienced by women lasted longer and was more severe than that experienced by men. Due to a higher incidence of traumatic abuse issues among women, they were also more likely to suffer from post traumatic stress disorder than men. Based on the 2004 Utah Health Status Survey (UHSS), 22% of Utah women scored below average indicating poor mental health status. This percentage was higher among women ages 18–34 (28%). According to 2004 Behavioral Risk Factor Surveillance System (BRFSS) data, Utah ranked second highest in the nation in the percentage of women reporting poor mental health (UT 47% vs. U.S. 39%). Mental illness is a very treatable disorder. While treatment effectiveness may vary according to the disorder, the overarching message is that hope and restoration of a meaningful life are possible for women despite serious mental illness.

**Mental Health Disorders Among Adults Aged 18 and Older by Sex, 2001-2003**



\*Anxiety disorders include panic disorder, phobias, obsessive-compulsive disorder, and generalized anxiety disorder.

\*\*Mood disorders include major depressive disorder, bipolar disorders, and dysthymia.

Source: National Comorbidity Survey Replication (NCS-R)

# Monthly Health Indicators Report

(Data Through August 2007)

<b>Monthly Report of Notifiable Diseases, August 2007</b>	<b>Current Month # Cases</b>	<b>Current Month # Expected Cases (5-yr average)</b>	<b># Cases YTD</b>	<b># Expected YTD (5-yr average)</b>	<b>YTD Standard Morbidity Ratio (obs/exp)</b>
Campylobacteriosis (Campylobacter)	23	33	241	191	1.3
Enterotoxigenic Escherichia coli (E. coli)	40	17	97	58	1.7
Hepatitis A (infectious hepatitis)	0	4	3	23	0.1
Hepatitis B (serum hepatitis)	0	4	9	28	0.3
Measles (Rubeola, Hard Measles)	0	0	0	0	--
Meningococcal Diseases	0	1	8	5	1.5
Norovirus	0	0*	16	11*	1.4
Pertussis (Whooping Cough)	35	47	273	235	1.2
Salmonellosis (Salmonella)	26	36	198	185	1.1
Shigellosis (Shigella)	3	6	20	32	0.6
Varicella (Chickenpox)	8	16*	579	434*	1.3
Viral Meningitis	25	32	74	80	0.9
West Nile (Human cases/Equine cases)†	10 / 9	17 / 19	12 / 10	13 / 13	0.9 / 0.8

<b>Notifiable Diseases Reported Quarterly, 2nd Qtr 2007</b>	<b>Current Quarter # Cases</b>	<b>Current Quarter # Expected Cases (5-yr average)</b>	<b># Cases YTD</b>	<b># Expected YTD (5-yr average)</b>	<b>YTD Standard Morbidity Ratio (obs/exp)</b>
HIV	26	24	45	41	1.1
AIDS	8	11	20	22	0.9
Chlamydia	1,471	1,049	2,652	1,844	1.4
Gonorrhea	229	150	403	261	1.5
Tuberculosis	9	9	23	16	1.5

<b>Program Enrollment for the Month of August 2007</b>	<b>Current Month</b>	<b>Previous Month</b>	<b>% Change<sup>s</sup> From Previous Month</b>	<b>1 Year Ago</b>	<b>% Change<sup>s</sup> From 1 Year Ago</b>
Medicaid	158,896	157,865	+0.7%	170,393	-6.7%
PCN (Primary Care Network)	18,575	18,046	+2.9%	16,799	+10.6%
CHIP (Children's Health Ins. Plan)	27,191	25,958	+4.7%	34,538	-21.3%

<b>Medicaid Expenditures (in Millions) for the Month of August 2007</b>	<b>Current Month</b>	<b>Expected/Budgeted for Month</b>	<b>Fiscal YTD</b>	<b>Budgeted Fiscal YTD</b>	<b>Variance - over (under) budget</b>
Capitated Mental Health	\$ 1.5	\$ 1.5	\$ 9.8	\$ 9.8	\$ --
Inpatient Hospital	\$ 18.0	\$ 18.0	\$ 23.4	\$ 23.4	\$ --
Outpatient Hospital	\$ 6.7	\$ 6.7	\$ 8.9	\$ 8.9	\$ --
Long Term Care	\$ 14.1	\$ 14.1	\$ 25.7	\$ 25.7	\$ --
Pharmacy	\$ 8.7	\$ 8.7	\$ 17.8	\$ 17.8	\$ --
Physician/Osteo Services	\$ 4.6	\$ 4.6	\$ 5.9	\$ 5.9	\$ --
<b>TOTAL HCF MEDICAID</b>	<b>\$ 96.4</b>	<b>\$ 96.4</b>	<b>\$ 145.5</b>	<b>\$ 145.5</b>	<b>\$ --</b>

<b>Health Care System Measures</b>	<b>Number of Events</b>	<b>Rate per 100 Population</b>	<b>% Change<sup>s</sup> From Previous Year</b>	<b>Total Charges in Millions</b>	<b>% Change<sup>s</sup> From Previous Year</b>
Overall Hospitalizations (2006)	272,404	9.9%	-0.9%	\$ 3,874.8	+10.7%
Non-maternity Hospitalizations (2006)	161,398	5.7%	-2.5%	\$ 3,235.3	+11.0%
Emergency Department Encounters (2005)	664,523	25.0%	+3.5%	\$ 553.2	+21.2%
Outpatient Surgery (2005)	308,300	11.7%	-0.5%	\$ 947.7	+12.1%

<b>Annual Community Health Measures</b>	<b>Current Data Year</b>	<b>Population at Risk</b>	<b>Number Affected</b>	<b>Percent/Rate</b>	<b>% Change<sup>s</sup> From Previous Year</b>
Overweight and Obesity (Adults 18+)	2006	1,777,802	976,000	54.9%	+1.3%
Cigarette Smoking (Adults 18+)	2006	1,777,802	174,200	9.8%	-15.0%
Influenza Immunization (Adults 65+)	2006	217,313	156,700	72.1%	+3.4%
Health Insurance Coverage (Uninsured)	2006	2,582,371	306,500	11.9%	+2.5%
Motor Vehicle Crash Injury Deaths	2005	2,528,926	292	11.6 / 100,000	-4.5%
Suicide Deaths	2005	2,528,926	344	13.6 / 100,000	-11.1%
Diabetes Prevalence	2006	2,582,371	105,600	4.1%	-0.7%
Coronary Heart Disease Deaths	2005	2,528,926	1,567	62.0 / 100,000	-4.6%
All Cancer Deaths	2005	2,528,926	2,512	99.3 / 100,000	+0.4%
Births to Adolescents (Ages 15-17)	2005	58,374	917	15.7 / 1,000	+5.8%
Early Prenatal Care	2005	51,517	40,587	78.8%	+1.0%
Infant Mortality	2005	51,517	231	4.5 / 1,000	-13.3%
Childhood Immunization (4:3:1:3:3)	2006	51,016	41,000	80.4%	+8.5%

\* Due to limited historical data, the average is based upon 3 years of data for norovirus, varicella, and 4 years of data for West Nile virus infections.

† 2007 WNV activity continues to be low compared to the 2006 season.

§ % Change could be due to random variation.

Note: Active surveillance has ended for influenza until the 2007 season.