

# Utah Health Status Update:

## Utah's Hospital Discharge Data System

February 1998

Utah Department of Health

The Utah Department of Health, with the leadership of the Utah Health Data Committee, has developed an all-payer hospital discharge data reporting system. Since 1992, all licensed Utah hospitals and the Veterans Administration Medical Center have reported on over 200,000 hospitalizations each year. In 1996, two new statewide hospital data bases were established: ambulatory surgery and emergency department encounters and these data will be made publicly available during 1998. This report will highlight hospital utilization patterns and illustrate several different uses of hospital discharge data to monitor cost, quality, and access to support both market and public health uses.

Utah's hospitals reported 222,031 inpatient discharges in 1996. Those hospitalizations accounted for 904,344 patient days with an average stay of 4.1 days and average charge of \$6,385 per discharge. Hospital charges were \$1.58 billion, estimated to be nearly half of all personal health care expenditures for that year.

- The average length of stay has steadily decreased since 1992.
- Between 1993 and 1996, the average charge per hospital stay in the Wasatch Front has increased at a rate below that of inflation.

Utah's demographics, healthy population, high fertility rate, and managed care are major factors shaping Utah's hospital industry, especially in urban areas.

- Utah has appreciably lower rates of hospitalization than the United States in all age and sex groups, except among reproductive age women.
- Over 38 percent of all hospitalizations were maternity or childbirth-related. However, those patients accounted for only 15 percent of charges.
- For over 23 percent of inpatient discharges the primary payer was a managed care plan; Medicare accounted for 21.4 percent, Medicaid for 13.2 percent, and other commercial payers for 12.2 percent.
- Surgical and other major procedures account for almost 50 percent of all inpatient charges.

The data indicate substantial variation in practice patterns; an example shown in the figure to the right is first time Cesarean section rates. Demonstrating practice variation can provide opportunities for quality improvement efforts that hold the potential to reduce unnecessary utilization without compromising quality.

The Health Data Committee has adopted the 3M/Health Information Systems All Patient Refined DRG severity adjustment system to control for differences among patient populations in different hospitals to allow valid comparisons for outcomes such as in-hospital mortality.

- These adjusted in-hospital mortality data suggest that compared to national rates, Utah hospitals have better outcomes for some conditions, but worse for others. These are potential areas for improvement.

### Hospital Utilization Trends

Number of discharges, average length of stay, and average total charge, Utah hospitals, 1992-1996

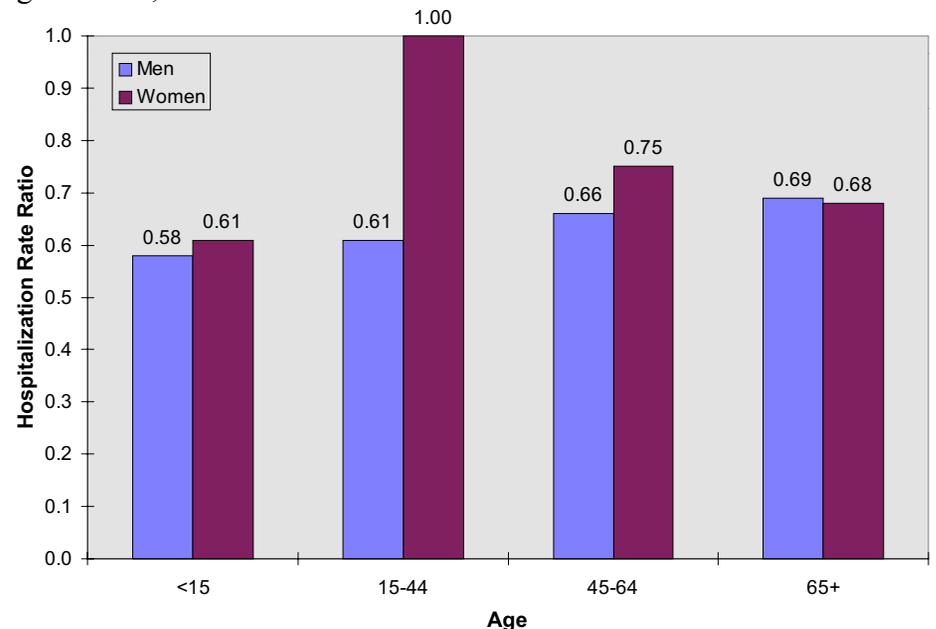
	1992	1993	1994	1995	1996
<b>Number of Discharges</b>	211,347	212,222	213,421	217,903	222,031
<b>Average Length of Stay*</b>	n/a	4.44	4.32	4.41	4.07
<b>Average Total Charge*</b>	n/a	\$5,813	\$6,008	\$6,094	\$6,385

\*Excluded cases with values above 2.5 standard deviations from the state mean

Source: Utah Hospital Discharge Database. Utah Health Data Committee.

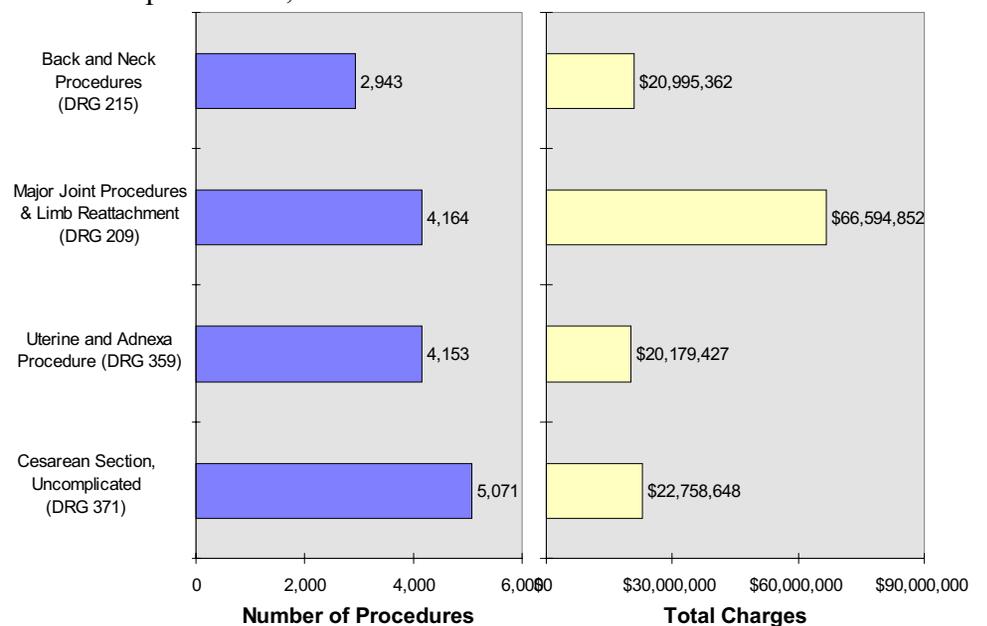
### Utah's Hospitalization Rates

Ratio of the rate of hospitalization in Utah to the United States rates, by age and sex, 1995



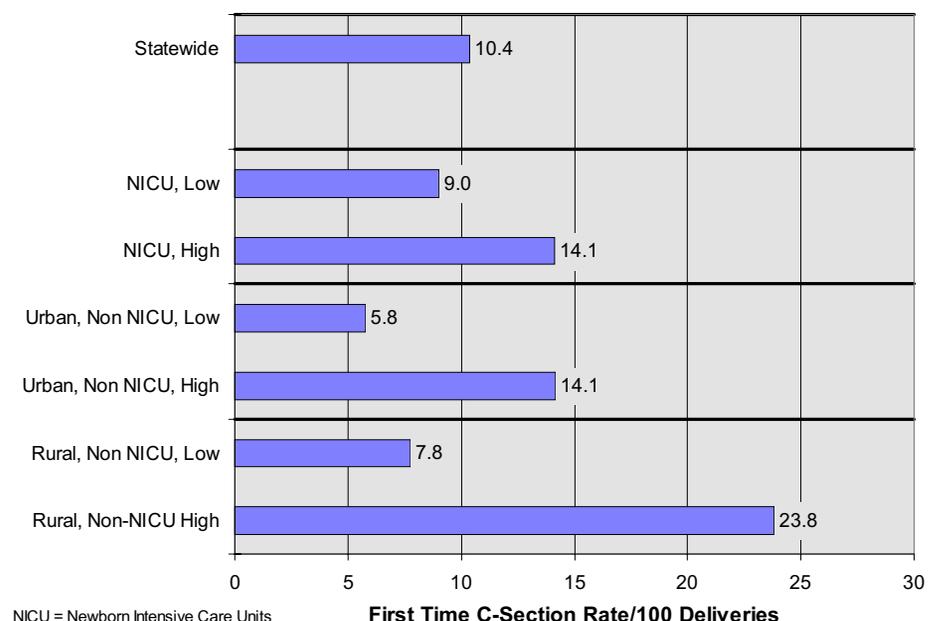
### Common Procedures

Numbers of procedures performed and total charges for the four most common procedures, Utah 1996.



### Cesarean Section Variation

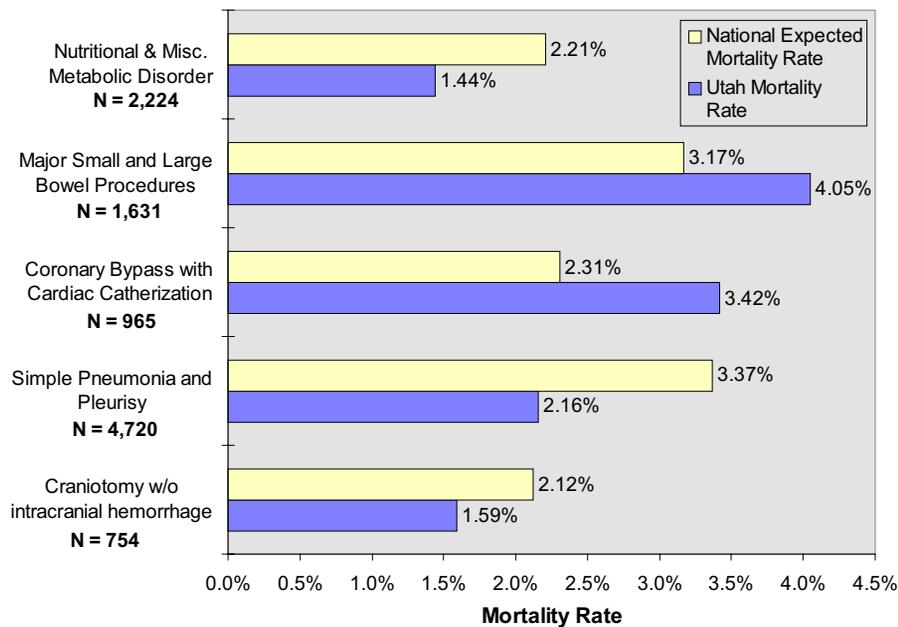
First time cesarean section rates per 100 deliveries for hospitals with lowest and highest rates according to whether the hospital has a NICU and is urban or rural, 1992-1995.



NICU = Newborn Intensive Care Units

## Hospital Mortality in Utah and U.S.

In-hospital death rates for selected common surgical procedures and medical diagnosis grouping, Utah and U.S., 1995.



\* Rate adjusted for severity based on patient demographic and co-morbidity data.

## Conclusion

Utah's hospital discharge database was established to be a resource for multiple uses and users. It has been used by public health epidemiologists to assess health status, by government and academic health services researchers to identify geographic areas with poor access to health care, as well as by health plans and health care systems for market analyses, resource allocation, and to guide quality improvement efforts. With continuing use, the accuracy of the database will improve and additional uses will be identified.

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Prepared in cooperation with the Utah Health Data Committee

Additional information on hospitalizations and about Utah's hospital system are available on the Internet at <http://hlunix.hl.state.ut.us/hda> and from the Office of Health Data Analysis, Utah Department of Health, 288 North 1460 West, P O Box 142854, Salt Lake City, Utah 84114-2854, (801) 538-7048, FAX (801) 538-9916, or email: [hlhda.dlove@state.ut.us](mailto:hlhda.dlove@state.ut.us).



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