

## State-Level Child Health System Performance and the Likelihood of Readmission to Children's Hospitals

### Date:

Jul 2010

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**OBJECTIVES:** To assess the relationship between children's hospital readmission and the performance of child health systems in the states in which hospitals are located.

**STUDY DESIGN:** We conducted a retrospective cohort study of 197,744 patients 2 to 18 years old from 39 children's hospitals located in 24 states in the United States in 2005. Subjects were observed for a year after discharge for readmission to the same hospital. The odds of readmission were modeled on the basis of patient-level characteristics and state child health system performance as ranked by the Commonwealth Fund.

**RESULTS:** A total of 1.8% of patients were readmitted within a week, 4.8% within a month, and 16.3% within 365 days. After adjustment for patient-level characteristics, the probability of readmission varied significantly between states ( $P=.001$ ), and the likelihood of readmission during the ensuing year increased as the states' health system performance ranking improved. States in the best ranking quartile had a 2.03% higher readmission rate than states in the lowest quartile ( $P=.02$ ); the same directional relationship was observed for readmission intervals from 1 to 365 days after discharge.

**CONCLUSIONS:** Hospital readmission rates are significantly related to the performance of the surrounding health care system.

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