

Community Household Income and Resource Utilization for Common Inpatient Pediatric Conditions

Date:

Nov 2013

[Visit Article](#)

BACKGROUND AND OBJECTIVE: Child health is influenced by biomedical and socioeconomic factors. Few studies have explored the relationship between community-level income and inpatient resource utilization for children. Our objective was to analyze inpatient costs for children hospitalized with common conditions in relation to zip code-based median annual household income (HHI).

METHODS: Retrospective national cohort from 32 freestanding children's hospitals for asthma, diabetes, bronchiolitis and respiratory syncytial virus, pneumonia, and kidney and urinary tract infections. Standardized cost of care for individual hospitalizations and across hospitalizations for the same patient and condition were modeled by using mixed-effects methods, adjusting for severity of illness, age, gender, and race. Main exposure was median annual HHI. Posthoc tests compared adjusted standardized costs for patients from the lowest and highest income groups.

RESULTS: From 116 636 hospitalizations, 4 of 5 conditions had differences at the hospitalization and at the patient level, with lowest-income groups having higher costs. The individual hospitalization level cost differences ranged from \$187 (4.1%) to \$404 (6.4%). Patient-level cost differences ranged from \$310 to \$1087 or 6.5% to 15% higher for the lowest-income patients. Higher costs were typically not for laboratory, imaging, or pharmacy costs. In total, patients from lowest income zip codes had \$8.4 million more in hospitalization-level costs and \$13.6 million more in patient-level costs.

CONCLUSIONS: Lower community-level HHI is associated with higher inpatient costs of care for 4 of 5 common pediatric conditions. These findings highlight the need to consider socioeconomic status in health care system design, delivery, and reimbursement calculations.

Journal:

[Pediatrics](#)

Authors:

Fieldston ES, Zaniletti I, Hall M, Colvin JD, Gottlieb L, Macy ML, Alpern ER, Morse RB, Hain PD, Sills MR, Frank G, Shah SS