

[3784.1] Utilization of Health Care by Children with Asthma Living with Smokers

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BACKGROUND: International studies suggest that the presence of adult smokers in households changes patterns of health care utilization by children with asthma. Small scale studies conducted in the USA have not been conclusive. To our knowledge there have been no national studies addressing this question.

OBJECTIVE: To contrast non-emergency room outpatient (outpatient), emergency room (ER) and inpatient utilization among US children with asthma living in smoking versus nonsmoking households.

DESIGN/METHODS: Children diagnosed with asthma were identified from the 2000-2004 Medical Expenditure Panel Survey and classified in to "smoking" or "nonsmoking" households based on the presence of at least one adult smoker in the household. Both the likelihood of any visit and the frequency of utilization were contrasted between the two groups for visits to outpatient offices, visits to ER departments and inpatient hospitalizations. Bivariate contrasts and multivariable regression analyses controlling for poverty, race/ethnicity, sex, age, census region status and insurance status were conducted and weighted using SUDAAN software.

RESULTS: Children with asthma living with smokers have nearly two fewer outpatient visits per year than those not living with smokers (7.3/yr vs. 9.1/yr, $p=0.001$). In contrast, they have more ER visits (0.34/yr vs. 0.25/yr, $p<0.001$). There was no significant difference in inpatient utilization. In multivariable analyses the presence of a smoking adult in the household independently predicts both the likelihood that there will any visit to an outpatient service (AOR = 0.79, CI: 0.74-0.85) or an ER (AOR=1.26, CI: 1.16-1.36) as well as the number of visits to each setting (outpatient $p<0.001$; ER $p=0.01$).

CONCLUSIONS: The presence of an adult smoker in the household is associated with approximately a 25% decrease in outpatient, non-emergency care and a 25% increase in the use of ER services.

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