

[3784.2] Who Exposes Children to Secondhand Smoke (SHS) in Their Homes?

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BACKGROUND: The presence of an adult smoker living in a household with children significantly increases the risk that the child will be exposed to SHS. Virtually nothing is known about the identity of these adults and how family composition influences the likelihood of there being a smoker in the household.

OBJECTIVE: To assess which adults within children 's homes smoke and which household compositions are most likely to contain smokers using a nationally representative sample.

DESIGN/METHODS: Households with children were identified from the Medical Expenditure Panel Survey 2000 –2004. Members of households were categorized into subgroups according to their relationship to the head of household (HH) and their smoking status. Bivariate and multivariable logistic regression analyses were conducted and weighted using SUDAAN software to be nationally representative.

RESULTS: 34% of children live with at least one adult smoker. The HH or their spouse constitute over 85% of these adults with an additional 11% being the adult children of the HH living in the home. The number of adults in the household significantly influences the likelihood that there will be a smoker. 47% of homes with three or more adults contain an adult smoker, compared to 30% and 33% for two- and one-adult homes, respectively ($p < 0.001$). In multivariable analyses controlling for family income, race/ethnicity and census region, children living in three-adult homes were more than twice as likely to live with a smoker than children in one- or two-adult homes (AOR=2.20, CI: 2.00-2.41). The majority (62.6%) of these three adult homes have two or more smokers. The identity of the smokers in these homes is most often the HH or his/her spouse (71.3%). However, the excess risk in these homes is associated with the presence of adult children of the HH in the household who make up nearly 25% of smoking adults living with children in households with three or more adults.

CONCLUSIONS: The HH and his/her spouse are the most likely adults to smoke in homes with children. Family composition is an important risk factor for the presence of smoking adults in households with children. Homes with three or more adults are significantly more likely to have a smoking adult, with adult children of the HH an important source of that excess risk.

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