

Fresno Asthmatic Children's Environment Study

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There is evidence that the quality of indoor and outdoor air is associated with adverse respiratory health effects in children. Health effects include increased reports of respiratory symptoms, use of asthma medications, missed school days due to respiratory illness, and decreased pulmonary function. The main goal of the Fresno Asthmatic Children's Environment Study (FACES), funded by the California Air Resources Board (CARB), is to examine the health effects of air pollution, especially particulate matter, on children with asthma. The investigators (at the University of California, Berkeley) will monitor a cohort of asthmatic children (N=300) for several years to determine the effects of air pollution on respiratory health. The study consists of a variety of measurements taken over the course of five years, including lung function tests, questionnaires, and skin testing for allergies. A unique and important aspect of this study is the extensive exposure assessment effort which will include monitoring in a sample of the participant's homes. The depth and quality of air pollution measurements, exposure estimation, and detailed health evaluations in this 5-year study will provide critical insights into the role of specific air pollutants and other environmental factors in the acute responses and natural history of childhood asthma. Findings from this study will be used to assist the California Air Resources Board and other regulatory agencies to develop appropriate air pollution standards and regulations. Results may also help health care providers identify children who are at the greatest risk for adverse effects of air pollution and guide decisions about environmental interventions.