



# FACT SHEET: National Survey on Environmental Management of Asthma and Children's Environmental Tobacco Smoke

## Key Findings

- Less than 30% of people with asthma are taking all the essential actions recommended to reduce their exposure to indoor environmental asthma triggers.
- People with a written asthma management plan (AMP) are more likely to take actions to reduce exposure to environmental asthma triggers; however, only 30% of people with asthma have a written AMP.
- Almost 3 million children (11%) aged 6 and under, were reported to be exposed to environmental tobacco smoke (ETS) on a regular basis in their home. (Note: "regular" is defined as 4 or more days/week.)
- Major challenges remain in reducing ETS exposure for at-risk (sub-group) populations.
- ETS exposure is significantly higher in households at and below the poverty-level and in households with a lower educational level (less than a college degree).
- Parents account for the vast majority of exposure to ETS in homes.
- Children with asthma were just as likely to be exposed to ETS in their home as children in general.



## Background

### Importance of Survey

- First ever national data on environmental asthma trigger awareness, actions taken to reduce exposure to environmental asthma triggers, and barriers to trigger reductions action.
- Updated information on all children's exposure to environmental tobacco smoke [ETS/second hand smoke], comparable to that obtained in CDC's 1998 National Health Interview Survey (NHIS).

### Overview of Survey

National Survey on Environmental Management of Asthma and Children's Exposure to ETS (NSEMA/CEE) was a national telephone survey in English and Spanish which was developed by EPA in consultation with CDC's National Center for Environmental Health (NCEH) and National Center for Health Statistics (NCHS) survey was conducted from April to September in 2003.

### Survey Components

- Survey components included a screening interview and a detailed asthma interview.
- The screening interview collected demographic information, the asthma status of household members, and indicators of asthma morbidity (symptoms, medications, doctor visits), as well as information on household smoking in homes with children under 18.

The detailed asthma interview was conducted with one randomly selected person with asthma in each asthmatic household. Responses for children with asthma were given by the primary caregiver for the child. Information was collected on asthma treatment, environmental trigger knowledge, actions taken to reduce environmental triggers, barriers to taking environmental management action, and household smoking policy in homes with children.

## Survey Sample

- The sample for the screening interview consisted of 14,685 households (containing 38,209 individuals):

5,077 households had children under 18 years old (2,504 with children 6 or younger)

- Detailed asthma interviews were conducted with 2,353 individuals with asthma or who were the primary caregivers of children with asthma.

709 caregivers of children with asthma

1,631 adults with asthma (including 258 low-income adults)

13 individuals of unknown age

## Survey Results

### ETS Exposure

- Almost 3 million children [11%] aged 6 and under were reported to be exposed to secondhand smoke on a regular basis in their home. (Note: “regular” is defined as 4 or more days/week).
- Exposure is significantly higher in households at and below poverty-level.
- Exposure is significantly higher in households with a lower educational level (less than a college degree).

### Resident Smokers

- Parents account for the vast majority of exposure in homes – they contribute to almost 90% of the exposure – followed by resident grandparents and other relatives living in the home.
- The contribution of visitors to regular exposure of children aged six and under was negligible – only 0.3% of such children were exposed by visitors alone.

### Asthma Prevalence

- Current asthma prevalence was 7.5%.
- This is comparable to 2001 results from the National Health Interview Survey.
- 19% of all households contained a person who had ever been diagnosed with asthma.
- 17% of all households with children have at least 1 child ever diagnosed with asthma.
- People from low-income, low-education households were more likely to have asthma.

## Asthma Trigger Awareness

Approximately 77% of all people with asthma are aware of at least one personal trigger.

While 98% were aware of at least 1 of the “top five” general triggers, only 29% were aware of all five.

Two-thirds of respondents did not know that cockroaches were an asthma trigger.

## Asthma Actions and Management

- Almost 98% of people with asthma took at least 1 action to reduce trigger exposure.
- Approximately 30% took all essential actions.
- Only 7% took all possible recommended actions.
- Taking all essential and/or all recommended actions was more often reported for children than for adults.
- 30% of all people with asthma had a written Asthma Management Plan (AMP).
- 58% of all people with asthma have had their triggers diagnosed by a physician.
- Possession of an AMP and/or diagnosis of triggers by a physician were both significantly correlated with increased medical management, trigger knowledge, and action on environmental management.
- Having both an AMP and triggers diagnosed by a physician resulted in the highest level of trigger management.
- Adults were less likely to have an AMP than children.

## Asthma and ETS Exposure

- In households reporting a resident smoker, only 18% of people with asthma had a written AMP (compared to 30% overall).
- Children with asthma were just as likely to be exposed to ETS as children in general.

## Barriers to Action

- The most frequently cited barrier to taking appropriate action was that they were “doing something else” (but not a recommended action).
- The second most common barrier was “I don’t want to.”
- The third most common barrier was “I didn’t know.”

### For more information visit:

<https://www.epa.gov/indoor-air-quality-iaq>

<https://www.epa.gov/asthma>