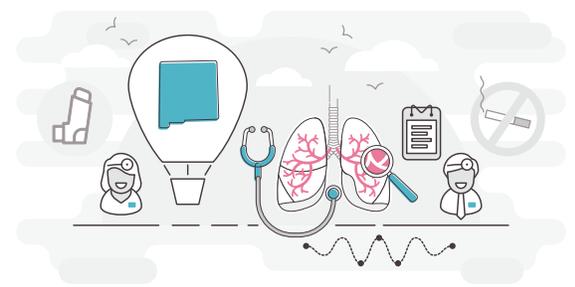


Clearing the Air

A Quarterly New Mexico Asthma Data Report



Volume 1, Issue 4

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ENVIRONMENTAL ASTHMA TRIGGERS

Asthma is a common chronic lung condition affecting people of all ages. It causes repeated episodes of wheezing, breathlessness, chest tightness, and nighttime or early morning coughing. About 1 in 13 New Mexicans suffer from asthma (8.4% of adults and 5.4% of children)¹. People with asthma have inflamed airways which are sensitive to things that may not bother other people. These things are called “triggers.” Asthma triggers vary from person to person, and many exist in our environment. Some people react to only a few while others react to many. People may also have different exposures based on housing, work, and school conditions, and where they live. Environmental triggers can be substances that cause allergies (allergens).

Some common allergens are:



- dust mites
- cockroaches
- pollen
- molds
- pet dander

Irritants in the environment can also cause an asthma episode. These irritants can include²:



- smoke from cigarettes
- air pollution (such as smog and ozone)
- wood fires, including wildfires
- strong fumes, vapors or odors (such as paint, gasoline, and perfumes)
- dust and particles in the air
- chemicals

This report summarizes trends in reported exposure to environmental triggers among individuals with asthma in New Mexico and the United States.

ISSUE HIGHLIGHTS



Households with poor housing quality had 50% higher odds of an asthma-related emergency department visit in the past year.



Only 1 in 3 New Mexicans with current asthma report that a healthcare provider talked to them about modifying their environment to improve asthma control.



1 in 3 NM adults report that their current job has made their asthma worse.

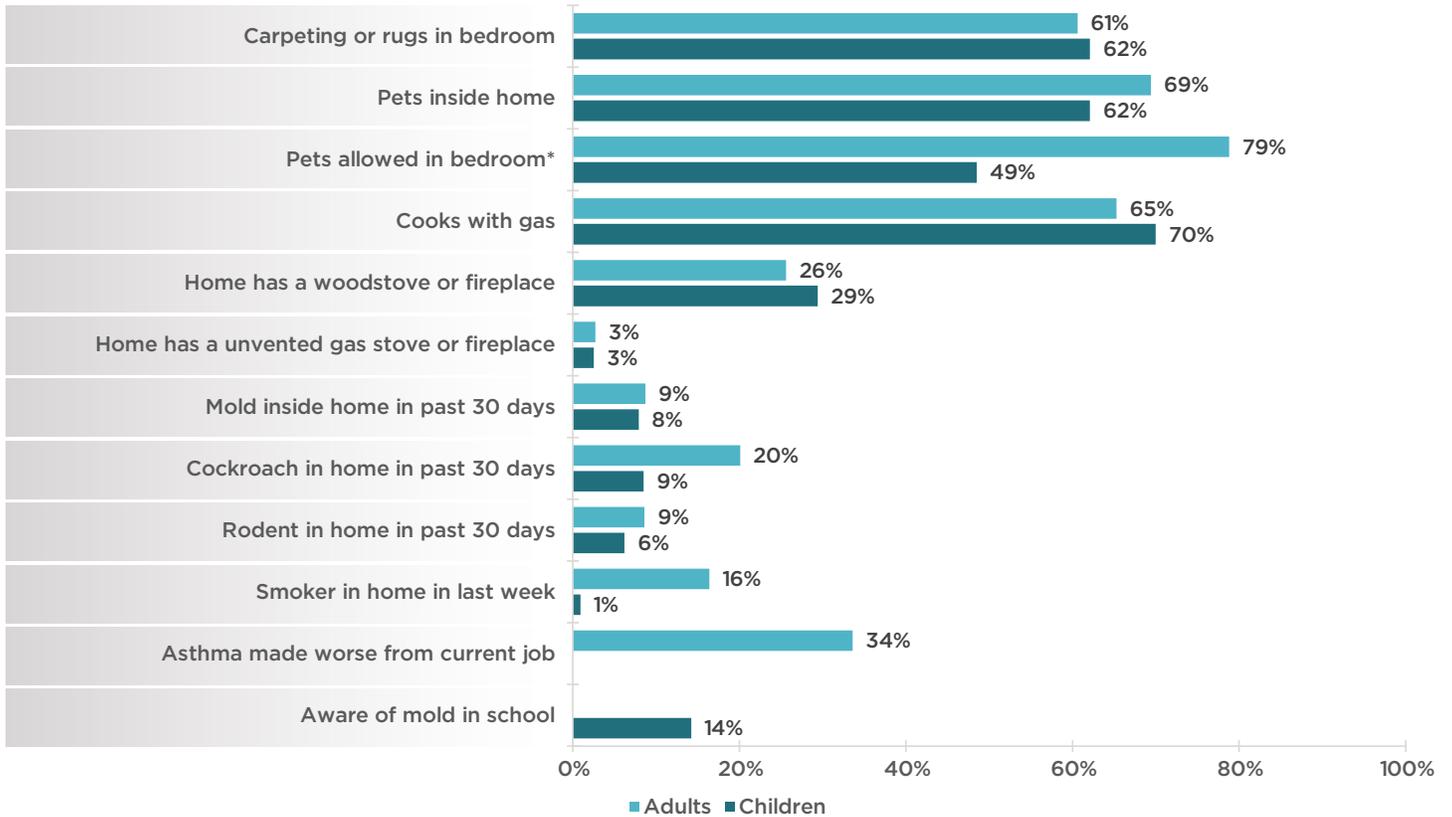
Americans spend
70%
of their time
at home



Because we spend so much time in our homes, indoor air quality and housing can have a major impact in asthma control³.

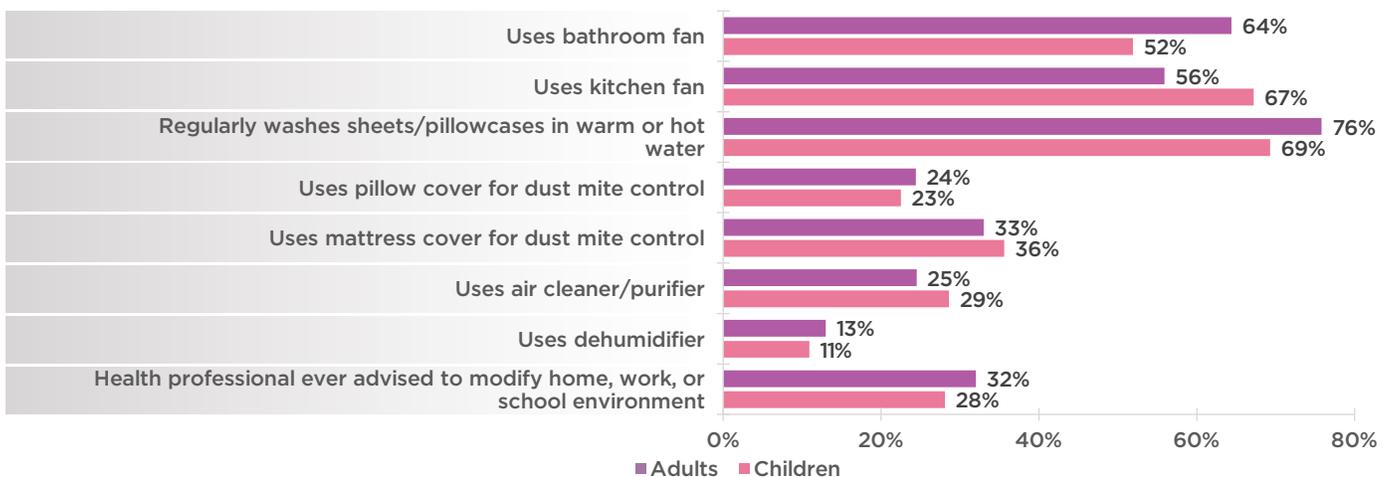
ENVIRONMENTAL EXPOSURES AMONG THOSE WITH CURRENT ASTHMA

About 1 in 10 New Mexicans with current asthma report having mold in their home, and 1 in 5 adults report having cockroaches in their home. High proportions of those with current asthma report cooking with gas stoves, having pets indoors, and having carpeting in bedrooms. About 1 in 3 adults report that their current job has made their asthma worse, and 14% of children report having mold in their school.



ENVIRONMENTAL MODIFICATIONS AMONG THOSE WITH CURRENT ASTHMA

The majority of New Mexicans with current asthma report using strategies such as ensuring they have and use a bathroom and/or kitchen fan. Other modifications, such as using a mattress and/or pillow dust mite cover are not as commonly implemented. About 1 in 3 people with current asthma report that a healthcare provider has talked to them about modifying their home, work, or school environment to improve their asthma control.



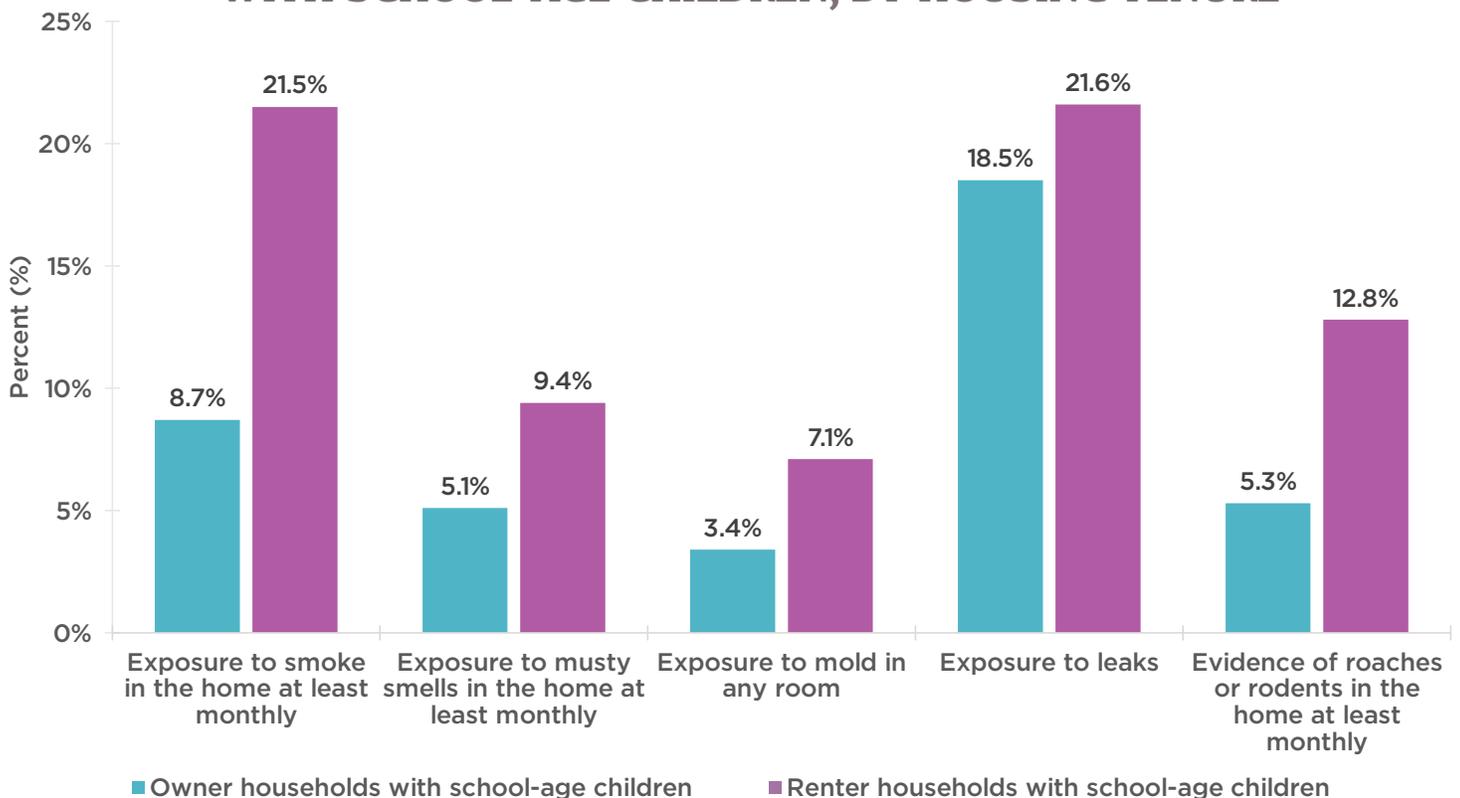
Among those with current asthma. Child data: 2015-2017 combined; Adult data: 2017.
*Among those who allow pets in the home.

HOUSING AND ASTHMA

The Urban Institute analyzed the American Housing Survey to explore nation-wide variations in asthma prevalence and asthma-related emergency department use among school-age children (ages 5 to 17) by a wide array of housing and household characteristics, including exposure to asthma triggers (e.g., smoke, mold, rodents, and cockroaches), tenure (renter or owner), and receipt of government assistance in paying rent. Some key findings include:

- **Asthma prevalence.** Households with kids are more likely to have at least one child with asthma when they also report exposure to smoke, mold, and leaks in their home.
- **Emergency department (ED) and urgent care visits.** Smoking inside the home and mold in the bedroom are associated with more ED and urgent care visits among households with an asthmatic child.
- **Housing tenure.** Renters with kids are more likely to have asthma triggers in their homes than owners (figure below) and are more likely to have at least one child with asthma.
- **Rental assistance.** Assisted renters have higher exposure to certain indoor asthma triggers (e.g., smoke, mold) than other low-income renters not receiving any government rental assistance and are more likely to have at least one child with asthma in the household.

EXPOSURE TO ASTHMA TRIGGERS AMONG HOUSEHOLDS WITH SCHOOL-AGE CHILDREN, BY HOUSING TENURE



NOTE: All differences between exposures among owner and renter households are significant.

For the full report: The Urban Institute. What's the Relationship Between Housing and Childhood Asthma? November 16, 2017. Available from: <https://housingmatters.urban.org/research-summary/whats-relationship-between-housing-and-childhood-asthma>

ENVIRONMENTAL EXPOSURES AND MODIFICATIONS AMONG NM ADULTS AND CHILDREN

	Adults % (95% CI)	Children % (95% CI)
Reported environmental exposures		
Carpeting or rugs in bedroom	60.6 (49.2-70.9)	62.1 (48.0-74.3)
Pets inside home	69.4 (58.5-78.4)	62.1 (48.2-74.2)
Pets allowed in bedroom*	78.8 (66.3-87.5)	48.5 (31.1-66.2)
Cooks with gas	65.3 (54.7-74.6)	70.0 (56.8-80.6)
Home has a woodstove or fireplace	25.6 (17.6-35.6)	29.4 (19.7-41.4)
Home has a unvented gas stove or fireplace	2.7 (1.0-7.1)	2.5 (0.7-7.9)
Mold inside home in past 30 days	8.7 (4.4-16.5)	7.9 (3.0-19.4)
Cockroach in home in past 30 days	20.1 (11.9-31.9)	8.5 (4.0-17.2)
Rodent in home in past 30 days	8.6 (4.8-15.0)	6.2 (1.9-18.2)
Smoker in home in last week	16.4 (10.1-25.6)	0.9 (0.1-6.4)
Asthma made worse from current job	33.6 (20.5-49.7)	n/a
Aware of mold in school	n/a	14.2 (5.7-31.3)
Reported environmental modifications		
Uses bathroom fan	64.4 (52.7-74.6)	51.9 (38.4-65.2)
Uses kitchen fan	55.9 (44.4-66.9)	67.2 (53.2-78.6)
Regularly washes sheets/pillowcases in warm or hot water	75.8 (64.4-84.4)	69.3 (54.2-81.2)
Uses pillow cover for dust mite control	24.4 (17.0-33.7)	22.5 (12.4-37.3)
Uses mattress cover for dust mite control	33.0 (24.0-43.5)	35.6 (22.9-50.7)
Uses air cleaner/purifier	24.5 (16.6-34.6)	28.6 (18.2-41.9)
Uses dehumidifier	13.0 (6.8-23.2)	10.9 (6.3-18.2)
Health professional ever advised to modify home, work, or school environment	32.0 (23.0-42.6)	28.1 (16.7-43.3)

Among those with current asthma. Adult data: 2017; Children data: 2015-2017 combined.
95% CI: 95% confidence interval.

*Among those who allow pets in the home.

New Mexico Initiatives to Support Smoke-Free Environments



www.smokefreesignals.com



Keeping homes and cars smoke-free for kids.

www.aredoingenuoughnm.com

For more information contact:

Alex Coyle
Asthma Epidemiologist
(505) 827-2652
Alexander.Coyle@state.nm.us

New Mexico Asthma Control Program
1190 S St Francis Dr, Suite N1300
Santa Fe, NM 87505
<https://nmhealth.org/about/erd/eheb/ap/>



DATA SOURCES & REFERENCES

The New Mexico Department of Health Asthma Call-Back Survey: This survey is an in-depth asthma survey conducted with Behavioral Risk Factor Surveillance System Survey respondents who report an asthma diagnosis.

Data and more information available from:
<https://www.cdc.gov/brfss/acbs/>

1. New Mexico Department of Health. Behavioral Risk Factor Surveillance System. Available from:
<https://ibis.health.state.nm.us/>

2. Asthma and Allergy Foundation of America. Asthma Triggers. Available from:
<https://www.aafa.org/asthma-triggers-causes/>

3. US Environmental Protection Agency. National Human Activity Pattern Survey. Available from: <https://nepis.epa.gov/>

RESOURCES

Learn more about environmental asthma triggers:
Centers for Disease Control and Prevention: <https://www.cdc.gov/asthma>

National Environmental Education Foundation:
<https://www.neefusa.org/health/asthma>

Asthma and Allergy Foundation of America:
<https://www.aafa.org/asthma.aspx>

Explore more data:
New Mexico Indicator-Based Information System: <https://ibis.health.state.nm.us/>

New Mexico Environmental Public Health Tracking Program:
<https://www.nmtracking.org/>