

SONOMA COUNTY 

Asthma Coalition

Report to the Community on Housing and Asthma

IN RESPONSE TO THE GROWING LOCAL CONCERN

about asthma, the Sonoma County Asthma Coalition was formed in 2002 and housed at the American Lung Association of California. There are approximately 30 organizations and individuals working on reduction of asthma environmental triggers in homes, schools, and in our community.

The Sonoma County Asthma Coalition's mission is to work with key stakeholders to improve the quality of life of people affected by asthma and to advocate for policies to minimize the impact of asthma in Sonoma County.

ASTHMA, AN INFLAMMATORY LUNG DISEASE, is one of the most common chronic diseases of children. Common symptoms include recurrent wheezing and coughing, difficulty breathing, and tightness of the chest. Asthma attacks can range in severity from inconvenient to life threatening.

There is no known cure for asthma, but it can be controlled by following a medical management plan and by reducing exposure to environmental "triggers," such as air pollution, cockroaches, dust mites, furry pets, mold, tobacco smoke, and certain chemicals.

Asthma is a major health concern in Sonoma County. Over one in five (22%) children ages 5-17 in the county have been diagnosed with asthma at some point in their lives, compared to 18% of children in California,¹ and 14% of children nationally.^{2,3}

With proper asthma management and minimal environmental asthma triggers, no one should die from asthma. Yet, between 2003-2005, at least 16 Sonoma County residents died due to asthma.⁴

Addressing Asthma through Policy Change

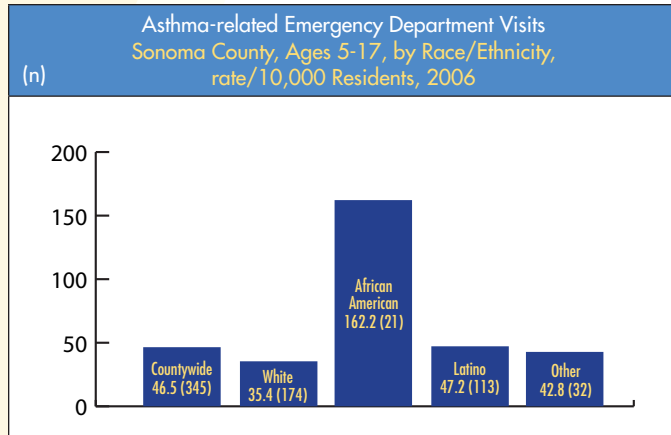
Environmental and social factors make Sonoma County a high-risk area for asthma, including high levels of pollen, molds and fungus, and heavy use of wood-burning stoves, fireplaces, agricultural burning, and pesticides. Additional factors contributing to poor air quality include accumulation of diesel and ozone pollutants due to gridlock along the Highway 101 corridor.

Asthma is a problem that needs to be addressed through policy change. Because the reduction of environmental triggers is an essential component of asthma control and prevention, individuals, communities, and policy makers must work together to find solutions. The Asthma Coalition successfully advocated for the passage of a County Resolution in 2005 highlighting links between indoor air quality and asthma in Sonoma County and calling upon the Department of Health to work cooperatively in the county to educate property owners and tenants on improving poor indoor air quality.

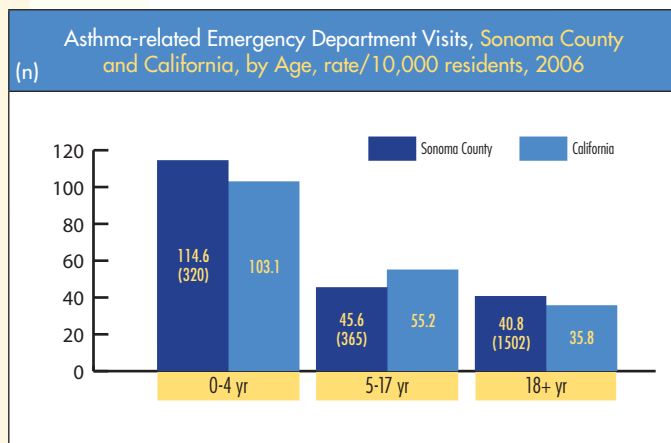
This report, which includes the latest data and research, will outline the connection between housing and asthma in Sonoma County, describe some of the work being done to address the problem, and highlight some specific policy recommendations.

Asthma-Related Emergency Department Visits and Hospitalization

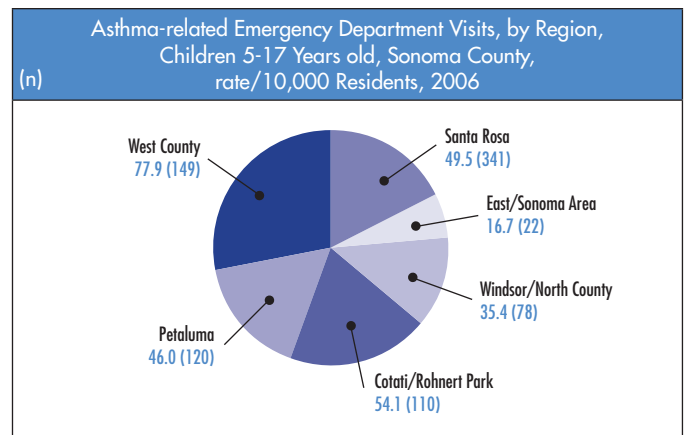
Environmental irritants often trigger asthma episodes that can become life threatening, requiring a visit to the Emergency Department (ED) and which can indicate poorly controlled asthma. In 2006, the highest rate of asthma-related ED visits among 5-17 year old children was found among African Americans (162 per 10,000 residents), followed by Latino (47/10,000) and White children (35.4/10,000).⁵



In addition to racial disparities, asthma-related ED visits and hospitalization rates are considerably higher for children ages 0-4 than all other age groups (see bar graph).⁶



The highest rates of asthma-related ED visits among 5-17 year old children are found in West Sonoma County (77.9/10,000), a region with high mold counts and more poverty than other areas in the county, followed by Cotati-Rohnert Park (54.1/10,000).⁷



Housing and Asthma

How safe is the air in our homes? Americans spend the great majority of their time indoors. The Sonoma County Asthma Coalition has identified homes as an important place to address asthma triggers, especially for the nearly 40% of Sonoma County residents who live in rental housing. Renters have less control over their indoor environments, which can be a challenge for a person with air quality-related health issues, like asthma.

Environmental triggers often found in housing include mold, second-hand smoke, dust, animal dander, cleaning and pest management products, and toxic fumes from paint, flooring and building materials. While renters can deal with some asthma triggers, it is up to property managers to address those that are due to structural factors, and up to city or county code enforcement to deal with code violations. There are, however, no countywide standards on indoor air quality.

The Sonoma County Asthma Coalition works on reducing environmental triggers in homes through advocacy and education with government, landlords, and renters.

INDOOR AIR ASTHMA TRIGGER: MOLD

Mold, a major trigger of asthma, grows in buildings if indoor air is damp or if there have been water leaks. Allergic reactions and asthma attacks from inhaling or touching mold or mold spores are common. Federal and state guidelines recommend immediately cleaning up any visible mold and preventing its reoccurrence through temperature and humidity control and by removing structural sources of moisture, such as leaking pipes, walls, or roofs.

In 2007, the Sonoma County Asthma Coalition talked to housing code officials throughout the county about this problem. Five out of nine building officials interviewed reported difficulties responding to mold complaints, including:

- Lack of clear understanding by both tenants and landlords about the causes of mold in the home (structural or behavioral).
- Unreported mold problems because mold is hidden from view.
- Unreported mold problems because tenants are unaware of their rights related to mold and/or are unaware of the health effects of mold.
- Lack of uniform safe mold standards in California Building Code, leaving remediation to the discretion of local code enforcement departments.
- Lack of adequate annual housing inspections of rental units.

INDOOR AIR ASTHMA TRIGGER: SECONDHAND SMOKE

In 2006 the United States Surgeon General stated that there is no safe level of exposure to secondhand smoke, and the California Air Resources Board declared secondhand smoke a toxic air contaminant. Children are especially at risk, as their lungs are still developing.

In multi-unit housing, secondhand smoke drifts between apartments and can seep through walls, air ducts, electrical sockets, and windows. The only effective way to protect vulnerable tenants is to limit smoking in these buildings. The Coalition works with landlords, housing developers and cities to educate and promote decreasing secondhand smoke in multi-unit housing through policy change.

INDOOR AIR ASTHMA TRIGGER: VOLATILE ORGANIC COMPOUNDS (VOCs) AND CHEMICALS

Another source of indoor air pollutants comes from products that off-gas VOC's, including carpets, glues, paints and varnishes, plastics and fire retardants. Other harmful chemicals are found in products such as carpet cleaners, cleaning solutions, air fresheners, and scented products.

Infants and children breathe more air, eat more food, and drink more water per pound of body weight than adults, thus are exposed to relatively greater quantities of environmental pollutants. They are also more vulnerable to the health impacts of toxic substances because their respiratory and immune systems are in developing stages.

VOCs, some of them acutely toxic and/or carcinogenic, occur at levels 2 to 5 times higher on average indoors than outdoors.⁸ Exposure to VOCs in indoor settings is connected to higher rates of asthma symptoms and breathing problems. One study showed that homes of asthmatic children had statistically significantly higher indoor air concentrations of total VOCs.⁹ Sonoma County Asthma Coalition is working diligently in this area, and had achieved several successes.

- The second highest rate of asthma related ED visits is found in Rohnert Park/Cotati. The Coalition is working with the city of Rohnert Park to educate and encourage landlords to choose environmentally preferable products and practices when renovating and cleaning rental units for new tenants.
- In collaboration with many others, successfully advocated for the City of Santa Rosa to adopt mandated green building policies, adopted in December 2007.
- Advocated with Burbank Housing Development Corporation, the largest developer of low-income housing in the county, to implement three green building practices (improved ventilation systems in units, use of no or low VOC paints, and landscaping with low allergen plants). Burbank Housing continues this practice with all new developments.
- Educated city planners, local businesses, low income housing developers and school maintenance personnel on using environmentally preferable “green” cleaning and maintenance products and practices.

HOW IS INDOOR AIR QUALITY PROTECTED IN SONOMA COUNTY?

Building officials in Sonoma County's nine cities spoke with the Coalition to learn what they knew about the health impacts of poor indoor air quality and how city code enforcement responds to indoor air quality complaints. The Coalition learned that:

- Five cities in Sonoma County have mandated Green Building standards as part of their building codes. Green points can be earned for choosing construction materials and interior finish products with zero or low emissions to improve indoor air quality, as well as for energy efficient design, which can impact moisture and mold levels in the home. Most cities intend to increase the minimum green points required to meet the code.
- Neither asthma nor indoor air quality are specifically addressed by housing code enforcement, except where addressed in Green Building codes and guidelines.
- All Section 8 units (federally subsidized low income rental housing) are inspected prior to being approved.
- All the cities operate on complaint-driven code enforcement practices resulting in many code violations never being reported.
- Santa Rosa's revitalization program has pro-active annual home inspections occurring in five low-income neighborhoods—this model stands alone in the county.

While all city building officials recognize the need for regular annual inspections of substandard rental units, most reported that current code enforcement staffing is inadequate to institute such a policy.

POLICY RECOMMENDATIONS

Sonoma County Asthma Coalition invites elected officials, government agencies, landlords, non-profit organizations, and tenants to join together to systematically improve the indoor air quality of rental housing in Sonoma County.

CODE ENFORCEMENT

- Move from complaint-driven to a pro-active home inspection process (such as annual inspections of multi-unit housing).
- Establish countywide standards for assessment and remediation for mold complaints.

SECONDHAND SMOKE

- Implement smoke-free policies for multi-unit housing (e.g., landlords and housing agencies designate smoke free units or completely smoke free complexes).
- Enact smoke-free housing ordinances or nuisance laws giving tenants affected by secondhand smoke legal recourse.

GREEN BUILDING

- Establish mandatory green building standards for all Sonoma County jurisdictions.
- Strengthen existing green building standards by increasing the minimum number of required indoor air quality related green points.
- Include indoor air quality and health related measures in new retrofit programs.
- Conduct health and safety code inspections at point-of-sale audit.

PREFERABLE HEALTHIER BUILDING, MAINTENANCE AND CLEANING PRODUCTS

- Increase the use of preferable green (non-toxic) products for cleaning, renovation, and maintenance by property managers, homeowners, business owners, schools and organizations.
- Provide incentives for landlords who choose healthier practices when renovating or cleaning rental units.

References

1. California Health Interview Survey (CHIS). Lifetime Asthma Prevalence. 2007; Available at: <http://www.chis.ucla.edu/>. Accessed Jan. 10, 2008.
2. CDC National Center for Health Statistics (NCHS). National Health Interview Survey (NHIS), U.S. Lifetime Asthma Prevalence Percents by Age. 2005; Available at: <http://www.cdc.gov/nchs/nhis.htm> Accessed Feb. 13, 2008.
3. For Sonoma County, the 95% confidence interval for asthma prevalence is 12.0-32.2%. For California, the 95% confidence interval for asthma prevalence is 16.8-19.1%. For the United States, the 95% confidence interval for asthma prevalence is 13.7-14.7%.
4. California Department of Public Health, Center for Health Statistics. California Death Public Use Tapes.
- 5.-7. California Office of Statewide Health Planning and Development (OSHPD). Patient Discharge and Emergency Department Databases.
8. U.S. Environmental Protection Agency, "Organic Gases (Volatile Organic Compounds VOC's)" Indoor Air Quality Basic Information, updated November 14, 2007, <http://www.epa.gov/iaq/voc.html>.
9. Rumchev K, et al. (2004). Association of domestic exposure to volatile organic compounds with asthma in young children. Thorax, 59: 746-751.



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Community Action to Fight Asthma

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"Cities and counties across the state are challenged with maintaining well-trained staffing to deal with the ever expanding growth in population. This growth far exceeds the ability of the housing industry to keep pace with the need for housing. This means that existing housing is overcrowded beyond reasonable standards. Required maintenance of the structures is ignored, and they deteriorate to the point of being unsafe, or at the very least un-healthy for the residents."

MIKE REYNOLDS, SENIOR CODE ENFORCEMENT OFFICER FOR SANTA ROSA

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