

Solano Asthma Coalition



Report to the Community on Asthma

In 2000, in response to the high rate of asthma in Solano County, the County Health Department, Kaiser Permanente, and the American Lung Association formed the Solano Asthma Coalition (SAC). The Coalition represents diverse stakeholders from over 20 organizations, including physicians, nurses, health educators, and representatives of school districts, parents and other community members, Kaiser Permanente, Partnership Health Plan of California, The Children's Network of Solano County, and two Air Quality Districts. In 2002, The California Endowment chose SAC as one of 12 California sites to receive a Community Action to Fight Asthma grant.

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.

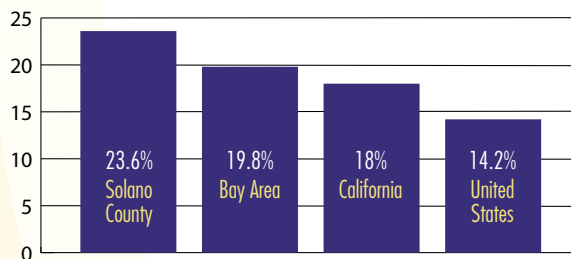
Asthma is a problem that needs to be addressed through policy change. Because the reduction of environmental triggers is an essential component of asthma control and prevention, individuals, communities, and policy makers must work together to find solutions. This report, which includes the latest data and research, will outline the problem of asthma in Solano County, describe some of the work being done to address the problem, and highlight some specific policy recommendations.

ASTHMA AND SOLANO COUNTY

Solano County, one of nine Bay Area counties, is located about 40 miles east of San Francisco, bordered by Napa, Yolo, Sacramento, and Contra Costa Counties. In 2006, an estimated 411,680 residents lived in Solano, of whom 26% were children and youth under age 18.¹ Solano County has a richly diverse population: 44% White, 22% Hispanic, 15% African American, 14% Asian, 4% multi-racial, and less than 1% each Native American/ Alaskan, Native Hawaiian or other Pacific Islander, or other race.²

Solano County is strategically located on the Capitol Corridor (Interstate 80) linking Sacramento to the Bay Area. While 95% of Solano County residents live in the seven incorporated cities, over 60% of the County is comprised of farmland and open space.³ Many environmental factors contribute to asthma symptoms, including industrial pollutants from nearby refineries and highways, exhaust from farm equipment and other vehicles, herbicides, heavy winds that circulate Bay Area smog eastward, and natural triggers such as pollen.

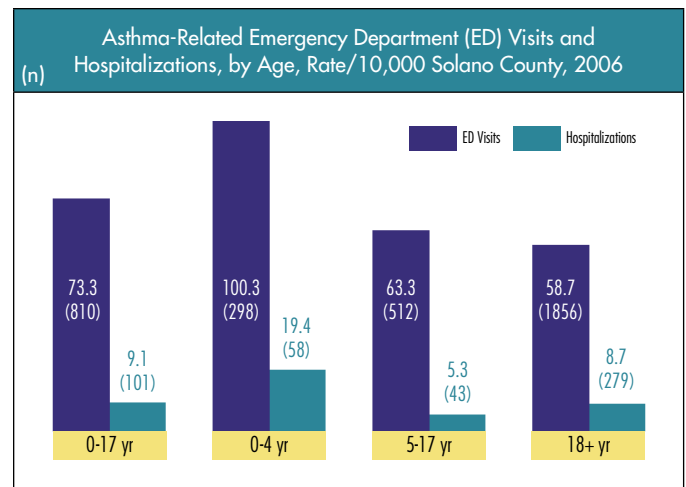
Solano County has the highest percentage of children ages 5-17 diagnosed with asthma compared to children in the Bay Area, California,⁴ and nationally.⁵



(For Solano County, the 95% confidence interval (CI) is 16.5-30.6%; for the Bay Area, the 95% CI is 17.1-22.6%; for California, the 95% CI is 16.8-19.1%; and for the U.S., the 95% CI is 13.7-14.7%.)

In 2006, Solano County children ages 0-17 had a higher rate of asthma-related visits to Emergency Departments (73.3 per 10,000) compared to their California counterparts (68/10,000).⁶ Asthma-related ED visits among African American children (158.7/10,000) were about three times higher than the rate for White children (57.2/10,000) and Hispanic children (46.1/10,000) in 2006.⁷

Along with racial disparities, age differences between children and adults are also found in asthma-related ED visits and hospitalizations. In Solano County, very young children ages 0-4 experience the highest rates of asthma-related ED visits and hospitalizations of all age groups (see bar graph).⁸



ASTHMA IN SCHOOLS

Asthma is one of the leading causes of school absenteeism. Nationally, in 2003, asthma accounted for an estimated 12.8 million lost school days in children who experienced an asthma flare in the previous year.⁹ Children with asthma may also have difficulty being physically active: 24% of children in one national survey reported that asthma limited their activities.¹⁰

According to a survey conducted among Solano County students, 25% of 5th and 7th graders, 27% of 9th graders, 29% of 11th graders, and 30% of students in non-traditional high schools have asthma.¹¹

While children with asthma face numerous challenges in learning and participating in school activities, asthma can be controlled through proper management – including identifying asthma triggers, limiting exposure to triggers, reducing environmental triggers known to cause symptoms, taking asthma medications as directed, and getting help when asthma symptoms don't improve.

SCHOOLS: INDOOR AIR QUALITY

Poor indoor air quality can impact the comfort and health of students and staff, which, in turn, can affect concentration, attendance, and student performance. Problems of indoor air quality include chemical pollutants from building maintenance materials; mold growth from standing water in maintenance rooms or from excess moisture in ceiling tiles or carpets; chemical pollutants from science and art classes; improperly maintained ventilation systems; and allergens from classroom animals and cockroaches or pests.

To help schools identify, correct, and prevent indoor air quality (IAQ) problems in school buildings, the U.S. Environmental Protection Agency (EPA) has developed a comprehensive resource. The IAQ Tools for Schools (TfS) program is designed to reduce exposure to indoor

environmental contaminants through voluntary adoption of sound IAQ management practices.

The Coalition introduced the Tools for Schools program to Solano County schools by inviting a member from the EPA Indoor Environments Team to facilitate a TfS workshop and a classroom walkthrough for all districts. In addition, SAC coordinated a green cleaning products educational workshop for all districts about the harmful effects of commonly used toxic cleaning products.

The Coalition also worked with the California Teachers Association (CTA) Healthy Air, Healthy Kids program to educate local CTA presidents about the TfS program. Interest from the Fairfield-Suisun Unified Teachers Association (F-SUTA) led to a meeting with the District Superintendent and key stakeholders. Meeting participants reviewed checklists identifying some of the most common asthma triggers found in classrooms (e.g., lack of dusting and vacuuming) and other problems such as leaky roofs and damaged carpets. The checklists became an effective way to improve communication between teachers and Custodial and Facilities personnel, and resulted in Custodial and Facilities staff immediately investigating and fixing some of the problems, and planning to install new roofs for two schools and replace damaged carpets.

The enthusiastic response to the TfS program by F-SUTA led to the creation of an IAQ Team and Strategic Plan. Fairfield-Suisun has become a “Model IAQ District” for Solano County and is working to encourage all school districts to follow their lead in improving school IAQ.

SCHOOLS: OUTDOOR AIR QUALITY

Exposure to vehicle exhaust, one of the leading sources of outdoor air pollution in Solano County, can increase asthma symptoms.

In 2003, the California Air Resources Board adopted an Airborne Toxic Control Measure (ATCM) limiting school bus idling. The measure requires the driver of a school bus or other commercial motor vehicle to manually turn off the engine upon arriving at a school or within 100 feet of a school and to restart the engine no more than 30 seconds before departing.¹²

Because many parents idle their cars while waiting to pick up children after school, SAC is working with school districts to expand the existing policy to eliminate idling of all vehicles within 100 feet of a school. SAC is conducting a no idling vehicle educational campaign in all school districts to raise awareness among parents that a single idling vehicle dropping off and picking up children at school adds three pounds of pollution into the air every month.

Collaborating with the Yolo-Solano Air Quality Management District (YSAQMD), SAC has developed no idling materials to educate residents about the health effects of vehicle idling and distributed materials (brochures, bookmarks, posters, and a media piece) to over 37,500 students and staff in three school districts.

WOOD BURNING ORDINANCE

According to the Bay Area Air Quality Management District (BAAQMD), wood smoke accounts for about one-third of the pollution in the Bay Area during the winter months.¹³ Wood stoves and fireplaces produce several types of pollution including particulate matter, carbon monoxide, organic gases, formaldehyde, and nitrogen oxides. Particulate matter (smaller than 2.5 microns) is especially dangerous because it is not filtered out by the nose or mouth and can lodge deep within the lungs causing long-term damage. Exposure can aggravate asthma, nose and throat irritation, bronchitis, and lung damage.

SAC has worked with the two Air Districts serving Solano County to promote cleaner burning natural gas appliances and phase out older wood burning stoves. The Coalition released its sample ordinance, conducted a public information campaign, distributed brochures, and used open mike opportunities to advance wood burning appliance concerns until the issue was finally placed on the meeting agenda of City Councils.

In December 2004, the Board of Directors of the YSAQMD (serving Vacaville, Dixon, and Rio Vista) adopted Rule 2.40, Wood Burning Appliances, prohibiting the sale or installation of wood burning appliances that do not meet emission standards set by the EPA. The Rule applies to all new installations, but does not affect existing appliances.

In October 2005, the City of Fairfield adopted Resolution 2004-31, approving a proposal to amend Chapter 5 of the City Building and Housing Code requiring all new, remodeled, or replaced wood burning appliances to be EPA certified or equal.

In December 2006, Solano County adopted Chapter 6.6 of the County Code, Wood Burning Appliances, which required the installation of EPA certified wood burning appliances for new installations and remodeling replacements in the unincorporated area of Solano County and authorized the County to assist the YSAQMD and BAAQMD in notification/announcements during air quality warnings or advisories issued by either Air District.

In June 2008, the Board of Directors of the BAAQMD (serving Vallejo, Benicia, Suisun City, and Fairfield) is expected to formally adopt Regulation 6, Rule 3, to Control Particulate Matter and Visible Emission from Wood Burning Devices.

POLICY RECOMMENDATIONS

While progress has been made in the past few years to reduce environmental asthma triggers in Solano County schools and communities, asthma continues to be a serious issue. SAC invites elected officials, government agencies, schools, and residents of the county to work together to create a cleaner environment for those with asthma.

SCHOOL ENVIRONMENT/AIR QUALITY

- Advocate for all school districts to adopt the EPA's IAQ Tools for Schools program.
- Advocate for the passage of a district-wide policy for all school districts to use low or no VOC products and to use preferable green (non-toxic) products for cleaning and maintenance.
- Advocate for all school districts to adopt a policy prohibiting idling by any vehicle within 100 feet of a school.

WOOD BURNING APPLIANCE ORDINANCE

- Advocate for the cities of Vacaville, Vallejo, Rio Vista, and Dixon to adopt wood burning appliance ordinances.

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Community Action to Fight Asthma

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