

# Contra Costa Asthma Coalition



## Report to the Community on Asthma

The Contra Costa Asthma Coalition (CCAC) is a broad-based partnership of organizations and individuals whose mission is to strengthen Contra Costa County's ability to prevent asthma and improve the lives of people affected by asthma. Below are recent CCAC activities and successes:

→ The CCAC received funding from Kaiser Permanente to conduct countywide asthma outreach and education on topics such as "First Aid for Asthma" and the benefits of using less toxic "green cleaning" products.

→→ CCAC members have been participating in a CalTrans grant, which will increase the capacity of West County residents to engage in transportation and land use planning decisions.

→→→ CCAC members, community residents, community partners, and the Contra Costa County Redevelopment Agency conducted the North Richmond Truck Route study. The group was successful in developing an alternative truck route that was approved by the Contra Costa Board of Supervisors, which will reduce truck traffic in residential neighborhoods.

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 Contra Costa County, with an emphasis on West Contra Costa County, describe some of the work being done to address the problem, and highlight specific policy recommendations.

## Asthma Prevalence

Families with asthmatic children face economic burdens with each hospitalization and must cope with the emotional challenge of controlling a lung disease that can be life threatening whenever improperly managed. When children repeatedly experience asthma episodes, they cannot engage in normal physical activities and are absent from school for more days than children without asthma<sup>1</sup>.

- **United States:** From 2003-2005, 14.2% (95% CI: 13.7-14.7) of children age 5-17 had been diagnosed with asthma at some point in their lives.<sup>2</sup>
- **California:** In 2005, approximately 1.3 million children age 5-17 had been diagnosed with asthma at some point in their lives.<sup>3</sup>
- **Greater Bay Area Region\*:** In 2005, 233,000 or 19.8% (95% CI: 17.1-22.6) of children age 5-17 were diagnosed with asthma at some point in their lives.<sup>4</sup> (\*Includes the counties of Santa Clara, Alameda, Contra Costa, San Francisco, San Mateo, Sonoma, Solano, Marin, and Napa).
- **Contra Costa County:** In 2005, an estimated 23.7% of children age 5-17 had been diagnosed with asthma at some point in their lives (95% CIw: 16.1-31.2).<sup>5</sup>

## Disparities in Asthma: Hospitalization in Contra Costa County

African American children in Contra Costa County are hospitalized for asthma at a rate almost four times that of White, Asian and Latino children, and almost three times that of the county's children overall (Table1)<sup>6</sup>.

	Cases	Percent	Rate*
White	346	32.9%	12.3
African American	297	28.2%	49.0
Latino	239	22.7%	13.3
Asian	76	7.2%	13.0
Contra Costa	1,052	100.0%	17.0

\*Age-adjusted rates per 10,000 children

Children living in San Pablo and Richmond have significantly higher asthma hospitalization rates than do children in other communities in the county. The rate of childhood hospitalization for asthma in San Pablo (41.2 per 10,000) is more than double that of the overall county rate (17.0 per 10,000). Richmond's rate (30.5 per 10,000) is nearly double the county.<sup>7</sup>

The exact causes for these disparities are unknown. Possible contributing factors include disproportionately high pollution levels and high poverty rates. These issues are described in further detail below.

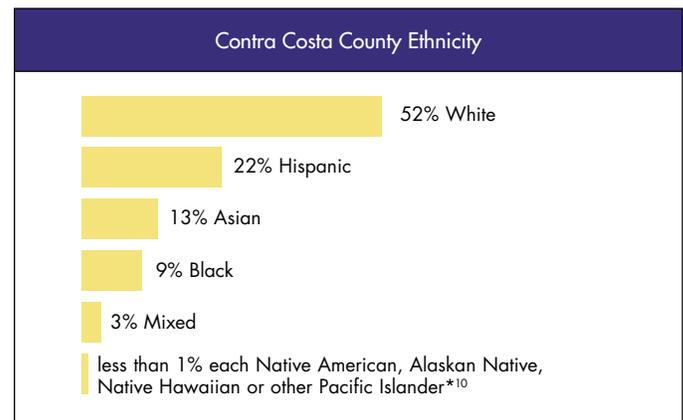
Hospitalization rates represent the most severe asthma cases and only the "tip of the iceberg". For every child hospitalized, several more seek care at clinics, are managing their asthma, or are not being treated at all.<sup>8</sup>

The costs of asthma hospitalizations affect everyone. Total charges for asthma hospitalizations in Contra Costa County among children aged 0-17 increased from \$2.6 million in 2004 to \$4.8 million in 2006.<sup>9</sup>

## Community Socio Economic Profile

Contra Costa County is located on the east side of San Francisco Bay, bordered by Solano, Sacramento and Alameda Counties. Contra Costa has a population of 1,024,319.

The western region consists of El Cerrito, Hercules, Pinole, Richmond, San Pablo, and the unincorporated areas of Crockett, El Sobrante, Kensington, North Richmond, and Rodeo.



(\*90% margin of error is less than +/- 1% of total population for each category of White, Asian, Black, Mixed, and Native American Indian, Alaska Native, Native Hawaiian or Other Pacific Islander. No margin of error is shown for Hispanic residents.)

## SOCIOECONOMIC CHARACTERISTICS

One in five or 196,761 Contra Costa residents live in poverty (defined as 200% below the Federal Poverty Level), representing 19.6% of the County's population. The greatest number of poor residents in the County live in Richmond (31,872, or approximately 1 in 3 Richmond residents).

People with low incomes are more likely to be uninsured. Being uninsured leads to poor health. Despite being in worse health than people with coverage, the uninsured use fewer services and face higher out-of-

pocket spending. Overall, the uninsured are more likely to die earlier than people who have insurance.

### Asthma and Outdoor Air Pollution

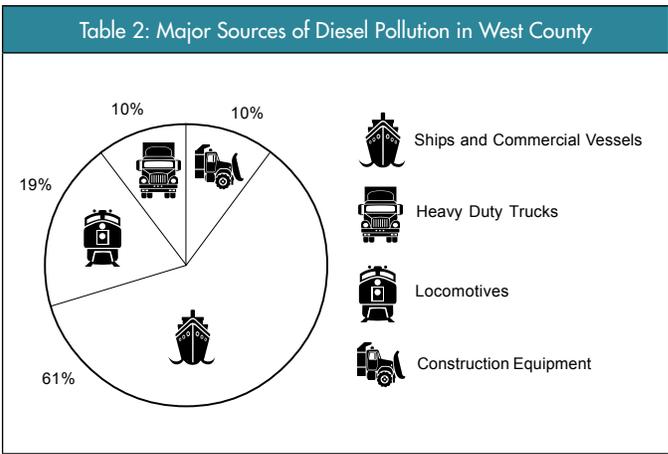
The burden of asthma weighs heavily on low-income and minority populations who also live in neighborhoods with disproportionately high levels of air pollution. Those living in industrialized urban areas have been found to have frequent asthma symptoms because of increased exposure to environmental asthma triggers which can exacerbate symptoms of asthma, and in some circumstances, cause new cases of asthma. West Contra Costa County is no different in these regards.

#### AIR QUALITY INDICATORS IN WEST CONTRA COSTA

West Contra Costa is framed by Interstates 580 and 80, and crossed by a major thoroughfare, the Richmond Parkway. Every day, up to 7,000 trucks travel on the highways around West Contra Costa.<sup>14</sup> The City of Richmond contains 15 miles of railroad tracks, a major rail yard, and a port that is fully operational. In addition to diesel exhaust from regular travel, many of these vehicles will idle their engines unnecessarily, aggravating an already dire situation. Numerous studies show that those living closest to transportation hubs are at greatest risk for health hazards.<sup>15</sup>

Diesel pollution is a critical risk factor for asthma in West County. Diesel particulate matter (DPM) is comprised of microscopic particles produced by combustion that can travel deep into the lungs and directly into the bloodstream.<sup>16</sup> DPM is a trigger for asthma and may even cause new cases of asthma. In California, DPM contributes to 2000 premature deaths every year. The risk for children is especially high as their developing respiratory systems are much more sensitive to these invasive particles.

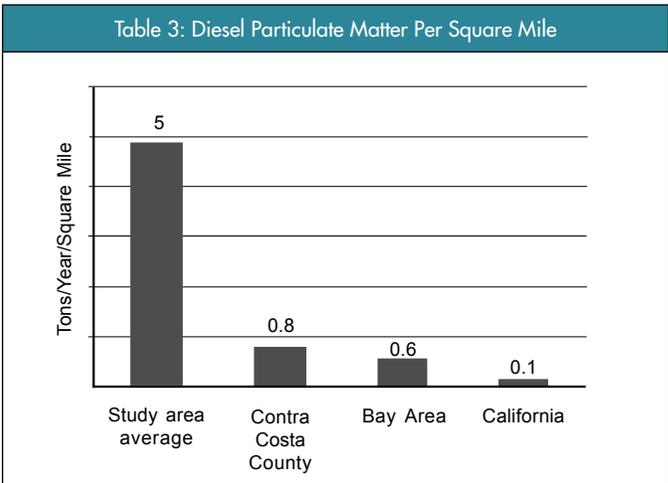
In 2005, the Contra Costa Asthma Coalition and community partners released *Deluged by Diesel*, a study that assessed the extent of diesel pollution in Inner West Contra Costa (San Pablo, North Richmond, and the Iron Triangle and Parchester Village neighborhoods in the city of Richmond). The study compiled an inventory of sources of DPM (Table 2)<sup>17</sup> and measured a component of diesel pollution in homes in Inner West County and in Central County. Partners included: the Community Action to Fight Asthma (CAFA) Project, Pacific Institute, West County Toxics Coalition, Community Health Initiative, Neighborhood House of North Richmond, Contra Costa Health Services and community residents. Below is the story of Lee Jones, a resident who participated in the study:



### A Study & Story From West County

“North Richmond has always been an industrial wasteland, and goods movement has broadened its scope... My home lies just a few blocks from the Chevron oil refinery and the Richmond Parkway. I can see the train tracks and yard from my back door. **With the increased truck and train traffic the air pollution has reached unimaginable heights...** Soot collects on the sides of my house from the diesel trucks running on the parkway. When I participated in an indoor air study, **my home had four times more black soot than the home in Lafayette that was tested...** My monitor went through the roof showing the dramatic difference in air quality for the residents of North Richmond who live on a free-way and residents in neighboring towns and cities. **We need change here, and we don’t have time to wait.”**

The story above confirms what many had long suspected: residents in Inner West County bear an unfair share of diesel pollution. The study estimated that there is 6 times more diesel air pollution released per square mile in Inner West County than in the County as a whole, and more than 40 times higher than in California (Table 3)<sup>18</sup>.



The movement of goods is powered almost exclusively by diesel engines, many of which are old and dirty. This unfairly impacts the nearby low-income communities of color and contributes to already existing health disparities. Policies about land use that determine how many, where, and how goods are moved haven't focused on the implications of the increases in diesel pollution on the health of those who live close to pollution sources. Decisions regarding land-use usually do not meaningfully include members of these communities, although they are ultimately affected by the outcome. Policies and partnerships that reduce diesel emissions and meaningfully include these communities need to be developed to ensure that existing problems are not exacerbated. Listed below are several policy recommendations from the CCAC.

## POLICY RECOMMENDATIONS

- Educate the public and decision makers on the impact of land use decisions and diesel on health.
- Include zoning and land-use policies that minimize the impact of diesel in the General Plan of cities and of Contra Costa County.
- Enforce mandated California Air Resources Board truck and bus idling limits.
- Regulate and reduce diesel pollution from rail yards, ports, distribution centers, and truck routes to decrease existing disproportionate burdens.
- Create partnerships of residents, community groups, businesses and health agencies to develop strategies that reduce diesel pollution and encourage better land use planning.

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## CONTACT INFORMATION

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Community Action to Fight Asthma

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