

Long Beach Alliance for Children with Asthma

A photograph of three children in a park-like setting. A boy in a red shirt is on the left, a girl in a purple shirt is in the center, and another child is partially visible on the right. They are gathered around a large, white, stylized logo that reads 'CAFA'. The background is a clear blue sky.

CAFA

Report to the Community on Asthma

The Long Beach Alliance for Children with Asthma (LBACA) has been working in Long Beach since 1999 to change the profile of childhood asthma through improved healthcare delivery and quality, outreach, education, support systems, improved living environments and changes in policy at all levels. In response to LBACA's policy work related to outdoor air pollution in all port-adjacent communities, LBACA expanded its clinical services to serve the cities of Carson, San Pedro, Wilmington, and beyond.

LBACA was 1 of 7 sites in the country founded by funding from the Robert Wood Johnson Foundation's Allies Against Asthma project from 2000-2005. It is currently 1 of 12 sites in the state funded under the California Endowment's Community Action to Fight Asthma projects.

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 controllable disease and with proper medical management, trigger reduction strategies and education, no child should die from asthma.

Asthma is a problem that needs to be addressed through policy change, in addition to clinical management and community awareness and education. 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, is focused on the communities closest to the source of pollution from the twin ports of Long Beach and Los Angeles – Long Beach, Carson, San Pedro, Wilmington, Lomita and Harbor City (hereafter referred to as: "target communities") – and will outline the problem of asthma, describe some of LBACA's work being done to address the problem, and highlight specific policy recommendations.

Who is at Risk? (Asthma Prevalence)

When determining who is at risk for asthma, especially with respect to air pollution's impacts on lung health, a focus on children is important because their lungs are still developing, they are exposed to greater levels of pollution from spending more time outdoors and breathing at a faster rate, and because their immune systems are weaker as they are still in development.¹

The rate of asthma prevalence in the target communities is higher than that in Los Angeles County, California, and the United States.

Comparative Rates of Childhood Asthma for Children Age 5-17			
United States ²	California ³	Los Angeles Region ⁴	Target Communities ⁵
14.2%	18%	15.6%	21.9%

Emergency Department Visits for Asthma

Emergency Department Visits for Asthma (per 10,000 Residents) for Children Age 5-17			
Los Angeles		Target Communities	
Number	Rate	Number	Rate
11,808	58.9%	1,015	65.9%

Hospitalizations for Asthma

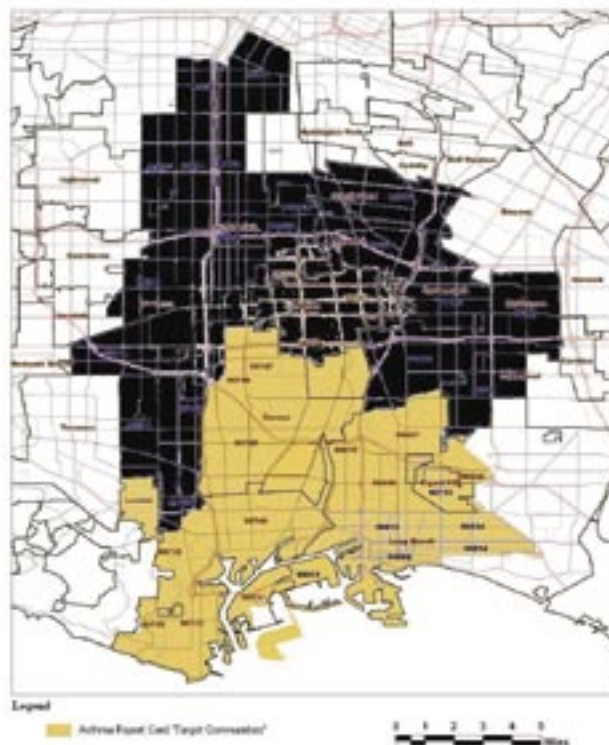
The rate of hospitalizations due to asthma among children being served by our fiscal agent, Miller Children's Hospital, demonstrate the urgency needed to address the issue of childhood asthma:

Hospitalizations for Asthma		
	Fiscal Year 2006	Fiscal Year 2007
Number of admissions to pediatric intensive care unit (PICU) at Miller Children's Hospital	76	90
Number of admissions to general pediatrics at Miller Children's Hospital	297	328

Profile of Target Communities

The target communities are characterized as being diverse, racially and economically. It is to preserve the richness of these communities, to protect them from the encroaching industries and to promote their health and well-being that LBACA has been providing clinical services, community education and advocating on their behalf. In the target communities highlighted in this report, no one ethnic or racial group is in the majority.

MAP OF TARGET COMMUNITIES



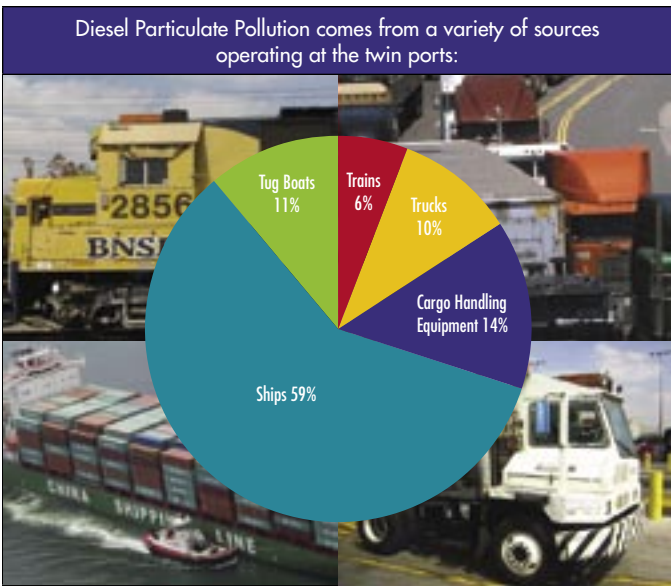
Asthma and Air Pollution

GEOGRAPHY

The target communities are adjacent to the largest port complex in the United States – the ports of Long Beach and Los Angeles which combined bring in more than 42% of the nation's goods from Asia. Together these ports generate 20% of the diesel particulate pollution and almost 25% of the nitrogen oxides (a key ingredient of smog) in the region. The California Air Resources Board estimates, that if left unregulated, the twin ports alone will be the largest source of pollution in the state by 2020 – larger than the combined impact of every car on the road in California!¹⁰

Ports, rail, trucks and other heavy equipment used to support the goods movement system use diesel fuel, and release emissions containing toxic contaminants including tiny particles, called particulate matter (PM). Since 1990, diesel exhaust has been listed as a known **carcinogen** under California's Prop 65. In 1998, the California Air Resources Board formally listed diesel particulate as a **toxic air contaminant**.

Particulates are tiny particles suspended in the air that, when inhaled, are shown to cause lung damage. While the nose and mouth filter out larger particles, smaller particles bypass the body's defenses causing lung damage, asthma exacerbations and other respiratory problems.¹¹



According to the University of Southern California’s Children’s Health Study, a prospective 10 year study on children from 8 to 18 years of age in Southern California:

In the more polluted communities, children have:

- More school absences
- Asthma exacerbation
- New cases of asthma related to high ozone levels in active children
- Reduced lung function

STORY OF ROCIO MARROQUIN, MOTHER OF A CHILD WITH ASTHMA:

I write this story telling you about my preoccupations with the health of my family and even more for the health of my children that have already been diagnosed with asthma. They have many medications for their asthma, including: Albuterol, Pulmicort, Singular, Claritin, and Nasonex, and I have had to also make many changes to the inside of my home (for mold, dust, etc) for their illness. For me the thing that worries me the most, however, is that I live behind train tracks and at times there are trains idling for 2 to 3 days at a time all day and all night. From the trains there is a strong smell, and the [yard equipment] which connects the containers and the train’s whistling make loud noises which make us jump awake during the night. But even more than the strong smell from the trains that is very penetrating, is that we have to cope with this reality because there is no place or possibility for the us to move. If it were possible to live somewhere else and keep my children in a place that would not cause them pain, then I would do it as soon as possible.

LIVING NEAR POLLUTION SOURCES

Port-adjacent communities are inundated with port-operations and are predominantly low income, communities of color whose stressors are further compounded by the high health risks from port-related pollution.^{12, 13}

Health Impacts of Goods Movement in California:

The California Air Resources Board’s Emission Reduction Plan of March 2006 attributes the following asthma impacts to activity from Ports and Goods Movement throughout the state of California:

- 2,400 premature deaths annually, mostly from particulate pollution;
- 2,000 hospital admissions from respiratory causes;
- 62,000 asthma and other respiratory symptoms;
- 360,000 missed work days from asthma; and
- 1,100,000 school absences from asthma.

Why This Matters: Economic Impacts of Asthma

The burden of caring for asthmatic children, in particular those whose asthma is caused or exacerbated by the effects of air pollution, carries with it a high economic cost.

- Racial and ethnic minorities bear the burden of Emergency Department visits for asthma and work or school days missed due to asthma. These result in economic impacts for the child’s caregiver, lost opportunity for the child and high medical costs to the family and/or healthcare system.¹⁴
- Asthma has a significant economic burden on the healthcare system. Data indicate that the costs to the system for asthma patients with uncontrolled asthma who are admitted to the hospital more than once can total \$5,000 annually. Thus, controlling and decreasing asthma exacerbations is a wise economic goal.¹⁵
- Utilization of the Emergency Department is costly and sometimes avoidable. However, children with asthma living below the federal poverty level are twice more likely to visit the emergency room than are more affluent children. This is an indication of poor health status, poor access to care and poor living conditions where asthma triggers within and outside of the home are prevalent.¹⁶
- According to the California Air Resources Board, for every \$1 invested in reducing emissions from goods movement, an estimated \$3-\$8 benefit in value by avoided health impacts would result.¹⁷

POLICY RECOMMENDATIONS

Despite our abilities to assist families of children with asthma to individually take steps to control their child's asthma, more must be done to protect the health of families living in our target communities. Outdoor air pollution permeates their lives and LBACA will continue to empower families to work towards policy change to decrease community exposure to air pollution. LBACA recommends:

- Dramatically reduce pollution from the "goods movement system" by implementing the Clean Air Action Plan in its entirety by 2011, which aims to decrease pollution from the Ports of Long Beach and Los Angeles by 45%.
- Adopt healthy land-use policies that protect public health, including existing guidelines for placement of facilities; standards that promote the use of new and emerging non-polluting technologies; and relocating port-related industrial uses away from residential neighborhoods by use of rail on port property in lieu of off port property within communities (on-dock rail).
- Dramatically reduce current levels of pollution along the I-710 corridor by implementing the Air Quality Action Plan (AQAP) and ensuring that the I-710 freeway project improves air quality after construction. The AQAP aims to decrease pollution levels along the I-710 freeway corridor prior to the start of construction of the I-710 freeway improvement project.
- Clean up the emissions from rail yard operations in existing facilities in Long Beach, Wilmington, Commerce, and East Los Angeles prior to the construction of new facilities. Pollution levels should be brought down to insignificant levels for public health impacts.
- Ensure that the Ports of Long Beach and Los Angeles approve a sustainable Clean Trucks Program which will cut pollution from the estimated 16,000 trucks servicing the ports, while shifting the burden of the costs of cleaning up and purchasing new equipment onto those who can afford to pay.
- Ensure that all projects emerging from the twin ports provide substantial opportunities for community input and participation, and allow for meaningful analysis of alternative technologies and project designs.

References

1. Children's Response to Air Pollutants. Bateson T and Schwartz J. Journal of Toxicology and Environmental Health, Part A. 71: 238-243, 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 2/13/2008.
3. California Health Interview Survey (CHIS). Lifetime Asthma Prevalence. 2007; Available at: <http://www.chis.ucla.edu/>. Accessed 1/10/2008.
4. Ibid.
5. Ibid.
6. California Office of Statewide Health Planning and Development (OSHPD). Patient Discharge and Emergency Department Databases.
7. California Office of Statewide Health Planning and Development (OSHPD). Patient Discharge and Emergency Department Databases.)
8. Data Source: Office of Statewide Health Planning and Development (OSHPD) Patient Discharge Database
Notes: Asthma emergency department (ED) visits and hospitalizations are those coded with ICD-9 code 493 as the principal diagnosis. For ED visits, rates include ED visits that resulted in a hospital stay in the same hospital. Denominator for rates is the number of residents based on 2006 California Department of Finance data. All rates were age-adjusted to the 2000 standard U.S. population.
9. Haveman JD, EM Jennings, and H Shatz. California and the Global Economy: Recent Facts and Figures, 2006 Edition. San Francisco, California: Public Policy Institute of California, 2006.
10. <http://www.coalitionforcleanair.org/our-campaigns-preventing-port-pollution.html>
11. http://www.calasthma.org/home/briefing_kit/
12. Bailey, D et. al. Harboring Pollution: Strategies to Clean Up U.S. Ports. Natural Resources Defense Council, August 2004.
13. Hricko A. Ships, Trucks and Trains: Effects of Goods Movement on Environmental Health. Environmental Health Perspectives. 114 (4) April 2006.
14. UCLA Health Policy Research Brief (2007, February). Low income Californians Bear Unequal Burden of Asthma.
15. Sullivan, S.D. (2005). The burden of uncontrolled asthma on the U.S. health care system. *Managed Care*, 14(Suppl. 8), 4-7; Discussion 25-27.
16. UCLA Health Policy Research Brief (2007, February). Low income Californians Bear Unequal Burden of Asthma.
17. California Environmental Protection Agency: Air Resources Board. DRAFT Proposed Emission Reduction Plan for Ports and Goods Movement in California, March 21, 2006.

CONTACT INFORMATION

For more information about this report or for information about asthma services, please contact the Long Beach Alliance for Children with Asthma (LBACA) at 562.427.4249 or visit us at www.lbaca.org.

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Community Action to Fight Asthma

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