

# Equitable Development Toolkit

## Community Strategies to Prevent Asthma

Updated December 2008

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# Improving Air Quality

Struggling to breathe, wheezing, gasping for air—asthma attacks are a frightening event for children and their families. Too many children suffer from this chronic condition—one in seven children in the United States has asthma, and, in some communities, one in every four children has the disease.

Asthma disproportionately affects low-income children, particularly African American and Latino youth. These children are exposed to an alarming array of environmental hazards that aggravate their asthma. Many live near highways, ports, and bus terminals that expose them to high levels of diesel pollution. They attend dilapidated schools with poor ventilation where chemical pesticides and cleaning products are utilized. And they often dwell in poorly maintained public housing and rental units that are rife with mold and pest infestation.

Children facing these conditions have limited success controlling their asthma through medication alone. Change must focus on improving environments where children live, learn, and play. Many parents, organizations, and coalitions around the country recognize the importance of a comprehensive approach and are working to reduce air pollution, improve housing, and change air quality in schools.

This following tool describes how environmental conditions aggravate asthma, and highlights the efforts of groups that are working to improve these conditions. Based on the experiences and perspectives of local advocates, this tool makes policy recommendations and suggests effective strategies for creating change.

To learn about the various strategies, policy approaches, and tools and resources for Improving Air Quality in our environment, visit [Air Quality in Homes](#), [Air Quality in Schools](#), and [Air Quality Outdoors](#).

Success requires a mechanism for community stakeholders to play an ongoing role in decisions that affect the quality and identity of the district.

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# Air Quality in Homes

The homes in which children live can have a significant impact on their asthma. Indoor pollutant exposures are the result of complex interactions between the structure of the building, the building systems such as ventilation and heating, furnishings, the outdoor environment, and the activities of those inside the building.

Mold, and cockroach and rodent allergens, have been associated with difficulty breathing, wheezing, and coughing in asthmatic children. Unfortunately, poor building maintenance and construction can create conditions that promote mold growth and cockroach and rodent exposure—including leaky pipes, condensation from bad ventilation, holes and cracks in floors and walls, as well as trash piles and clutter that provide shelter for pests.

Volatile organic compounds (VOCs), such as formaldehyde and other chemicals used in furniture and paints, are also asthma triggers. VOCs are particularly a problem in environments which may be poorly ventilated such as mobile homes, trailers, or poorly designed housing.

Other asthma triggers include gas stoves, space heaters, tobacco smoke, animal dander, and dust mites. In addition to known allergens, emerging evidence links pesticide exposure with asthma.

People living in low-income housing are limited in their ability to control asthma triggers. Many public housing units were built when minimal building standards were enforced. Recalcitrant landlords and overwhelmed public housing authorities are often unresponsive to calls for needed housing improvements, and may actually exacerbate problems by spraying pesticides throughout housing units and complexes.

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# Air Quality in Schools

Schools with poor ventilation, mold, and moisture problems have been linked to greater numbers of children reporting asthmatic symptoms such as wheezing, coughing, and difficulty breathing. In addition, volatile organic compounds (VOCs) such as formaldehyde—found in construction materials, furnishings, and cleaning products—are known respiratory irritants and often found in schools.

When schools have poor indoor air quality, not only health but also school performance suffers. Studies have shown that poor air quality can lessen children's ability to concentrate, lead to school absences, and lower their academic performance. This is particularly a concern since school performance influences children's life trajectories, including the types of jobs they will be able to secure and their future earning potential.

Children in low-income communities of color are particularly impacted by poor indoor air quality at school. Many schools in low-income neighborhoods are old and were built using materials that may not pass current safety requirements. Some schools in these communities must house students in portable classrooms, with high levels of VOCs and poor ventilation. Schools have also been built on or near contaminated sites, or close to freeways—which also can result in poor school air quality.

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# Air Quality Outdoors

## Background

Asthma and its symptoms, including wheezing, coughing, and difficulty breathing, can be triggered by exposure to outdoor air pollutants. In addition to triggering asthma, preliminary evidence suggests that high levels of outdoor air pollution contribute to the development of new cases of asthma. While researchers continue to gather information about the causes of asthma, asthma rates continue to climb.

Oil refineries and factories as well as cars, trucks, and buses, produce sulfur dioxide and nitrogen dioxide—gases that contribute to the formation of ozone. Ozone is known to damage lung tissue and cause breathing problems including asthma and coughing. In addition, diesel truck fumes, dust from farming, and pollution from other sources such as wood-burning stoves contain particulate matter—tiny particles that can be inhaled into the lungs and can lead to lung damage, breathing problems, and asthma attacks. Diesel particulate has been shown to be particularly harmful to health.

Everyone is impacted by air pollution. Pollution in neighboring, or even distant areas, can affect a community's ozone levels. Yet, not all of us are impacted equally. Some groups suffer disproportionate consequences when it comes to asthma. Environmental justice researchers have demonstrated that low-income communities and communities of color face higher levels of pollution than other communities.

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# Case Studies

## Neighborhood Assessment Teams: Moms Fighting Pollution in Long Beach

Women on the neighborhood assessment team for the Long Beach Alliance for Children with Asthma (LBACA) find themselves in surprising places. They might be standing on the sidewalk counting the number of trucks going through their neighborhoods on the way to the Long Beach port. They might be at the port using a “P-trak” meter to measure particulate matter in the air. Or, as in the case of Martha Cota, they might be providing U.S. Senator Barbara Boxer with material for a hearing on air pollution caused by ships.

Martha joined LBACA’s neighborhood assessment team after she and two of her sons were diagnosed with asthma. She heard about the team from one of LBACA’s community health workers (CHW). LBACA’s CHWs not only educate families about asthma and help them improve their indoor air environment; they also recruit mothers of children with asthma to advocate for better air quality in their neighborhoods.

Martha got involved because she saw first-hand how pollution from the Long Beach port exacerbated her family’s asthma. Long Beach and the surrounding communities are affected by the ports of Long Beach and Los Angeles and the related goods movement activity. These neighborhoods lie within the wind corridor most affected by harbor, industry, freeway, and refinery pollutants and the 710 freeway runs through the heart of these communities carrying more than 47,000 truck trips each weekday to and from the third largest port complex in the world.

According to Martha, windy days are the worst because the diesel fumes from the port’s trucks and ships blow into her neighborhood. Martha’s concerns are real: in 2005, the California Air Resources Board found that the ports and goods movement throughout the state of California caused over 2,400 premature deaths annually, mostly from particulate pollution, and was responsible for 2,000 hospital admissions due to respiratory problems. Supporting data from the 2005 Los Angeles County Health Survey found that almost 20 percent of children in the Long Beach Health District have been diagnosed with asthma, significantly higher than national asthma rates.

LBACA’s neighborhood assessment team—or the A-Team, as it is known—wants to change those statistics. The women gather data and share their findings—along with their personal experiences—to advocate for policies that will reduce air pollution.

Neighborhood assessment teams are trained by LBACA staff in leadership and advocacy skills. They also learn how to gather the data about pollution and truck traffic. These tasks provide helpful information for advocacy, but equally important is that they help participating moms to feel empowered. “By gathering data, these women find their voice,” says Elina Green, project manager at LBACA. “Once they see the connection between health and pollution, they become advocates and tell their stories about living in a toxic community.”

Members of the A-Team have testified at public hearings and have shared their experiences with port executives and government officials. When Senator Boxer held a local hearing on marine vessel pollution, she discussed Martha’s family in her opening remarks.

## Organizing + Data = Results: Reducing Diesel Emissions in Harlem

Twenty-five percent of children under the age of 13 in Central Harlem have asthma—more than five times the national rate. Six of Manhattan’s seven diesel bus depots are located in northern Manhattan next to schools, hospitals, and recreational facilities. [West Harlem Environmental Action \(WE ACT\)](#) believes the concentration of highly polluting diesel buses and high asthma rates are no coincidence.

For more than 15 years, WE ACT has been working in partnership with neighborhood residents to reduce diesel pollution in Harlem. They’ve highlighted data linking pollution with asthma, educated the community about the dangers of diesel emissions, advocated for fewer buses and trucks coming through the neighborhood, and demanded that the Metropolitan Transportation Authority (MTA) use cleaner buses.

In 2001, WE ACT filed a complaint with the U.S. Department of Transportation alleging that diesel bus depots were disproportionately located in Manhattan’s minority communities. They co-filed the complaint with civil rights attorneys who asserted that the high number of depots in northern Manhattan violated Title VI of the Civil Rights Act of 1964, an act barring federal funding for any program that discriminates based on race. To support the complaint, WE ACT did a land use analysis that showed a high proportion of people of color living near the depots.

The federal Department of Justice compelled the MTA to enter into mediation to resolve the suit and WE ACT organized residents to attend mediation meetings to share their personal stories with MTA representatives. The MTA committed to continuing negotiations with WE ACT and local residents to improve bus depot operations, train workers on the environmental health impacts of their work on local communities, monitor bus idling, and convert the fleet to cleaner vehicles such as hybrid-electric buses. Negotiations are ongoing and the MTA has begun to implement some of the programs WE ACT has recommended.

To keep the pressure on the MTA, WE ACT organized community members to form resident oversight councils (ROCs) to monitor MTA operations at each bus depot in Harlem. In 2006, ROC members and WE ACT held a joint hearing with the New York City Council to highlight the ongoing problems with air pollution in Harlem. They invited academics and health care providers to testify about air pollution levels as well as the high number of respiratory cases they diagnosed in community residents. Community members also testified about their experiences living in a polluted neighborhood. After the hearing, the City Council passed a resolution asking the state to assume greater oversight of MTA operations and review MTA bus siting decisions to avoid a disproportionate effect on low-income and communities of color.

WE ACT and community residents also successfully reduced the number of highly polluting garbage trucks in their neighborhood. The 135th Street Marine Transfer Station—where garbage trucks unloaded their waste onto barges—was slated for expansion until WE ACT got involved. The Transfer Station was a source of significant pollution—more than 320 diesel garbage trucks came in and out of the station every day and their drivers often left the trucks idling.

In reaction to the expansion proposal, WE ACT and local residents established the Northern Manhattan Solid Waste Coalition, which included community members, elected officials, business groups, environmental organizations, and tenant associations. The coalition met with city council members and the mayor, coordinated a letter and postcard writing campaign, and organized public testimony against the expansion. As a result of their advocacy, the mayor transferred management of the property from the sanitation department to the parks department and agreed to shut down the transfer station permanently. WE ACT is

now developing a planning process in partnership with the city to design a new use for the structure. A key component of the process will be public input to decide how the space would best serve the neighborhood.

## **The Merced/Mariposa County Asthma Coalition: Multifaceted Advocacy to Improve Air Quality in California's Rural Central Valley**

The air quality in California's Central Valley is abysmal—it is home to five of the 10 most ozone polluted counties in the nation. When the [Merced/Mariposa County Asthma Coalition \(MMCAC\)](#) learned that a local regulatory board was going to approve a plan giving the Central Valley until 2024 to attain federal ozone standards, the group swung into action. Pollution exacerbates asthma and the Merced community was suffering: one in five children living in the San Joaquin Valley of California has asthma—four times the national average. In 2006, almost 10,000 children in the Central Valley visited the emergency room due to asthma. Merced County, located in the Valley, was no exception to this trend.

The San Joaquin Air Pollution Control District plan to give the Central Valley until 2024 to achieve federal ozone standards did not satisfy local air quality advocates, including the MMCAC, who thought the Central Valley could reach air quality standards earlier—by 2017. The group had data to support this assertion: scientists from the [International Sustainable Systems Research Center \(ISSRC\)](#) in Southern California analyzed the local plan, and using data they had gathered about air quality in the area, concluded that the Central Valley could meet a 2017 deadline.

To get cleaner air sooner, rather than later, the MMCAC began educating the community about the connection between air quality and asthma. “Childhood asthma is a huge point of traction for people in the Valley. When we made the connection between the ozone plan and high rates of asthma, it really made a difference in mobilizing the community,” said Mary-Michal Rawling, program manager at MMCAC.

Working with the [Central Air Valley Coalition \(CVAC\)](#), which includes local community organizations, social justice groups, and environmental organizations, organizers held educational meetings for community members in preparation for the air district meeting where the plan would be discussed. Despite significant community opposition, the air district passed the plan 9-2. The MMAC was pleased that even two members voted against it: the dissenting members were appointees that MMAC and others had worked to get on to the air district board.

The plan next went before the California Air Resources Board (CARB). As a result of community organizing, more than 100 people from the affected community asked the CARB to vote no. Although the CARB approved the plan, they also created a task force to consider how the Central Valley could reach the federal standards earlier than 2024. After multiple meetings, the task force identified specific ways the Valley could meet a 2017 deadline. Unfortunately, CARB decided to dissolve the task force without changing the attainment deadline.

Despite these disappointments, the advocates didn't stop their work. Opposition to the air district's plan was a rallying cry for asthma advocates and others concerned about the air quality in the Valley. They had educated themselves and the community, used technical information and studies to make their case, mobilized the community, and showed the CARB that Central Valley residents were involved and would stay involved.

Their organizing and advocacy paid off in the next legislative session as CVAC organized lobbying days and MMCAC mobilized their members to educate residents about the need for a wider range of appointees to the board. While previous attempts had failed, MMCAC and others finally succeeded in getting a bill to add four



members with health and environmental expertise to the air district board. Now, MMAC has been working with others to recruit for the four new positions

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# Policy Approaches

Around the country asthma advocates are working in innovative ways to improve outdoor air quality. The following strategies highlight several of the most promising approaches.

***Promote Development According to Smart Growth Principles.*** Smart growth represents an approach to designing, building, and redeveloping communities in ways that are compact, accessible to transit, pedestrian-oriented, and supportive of mixed uses. The principles of smart growth oppose urban sprawl and are supportive of health. They include design elements that decrease dependence on cars, and increase opportunity for physical activity.

Air quality has been dramatically impacted by urban sprawl as residential developments expand farther away from urban economic centers. Dependence on cars and other vehicles has significantly increased as the distances between work, home, and goods and services have grown—without attention to public transportation options. This increased dependence on cars contributes significantly to air pollution. Accordingly, there are natural alliances between advocates for smart growth and those working on asthma and other health issues through changes to the built environment.

Air quality and asthma advocates are tackling urban sprawl, and increased dependence on cars, in innovative ways. For example, in the rural [Central Valley of California](#), advocates were successful in getting the local air district board to pass a rule requiring payments from developers to offset the impact on air quality for every new house, minimart, and office complex requiring increased vehicle trips. To reduce potential fees, developers can choose options for pedestrian access such as building sidewalks and by increasing green space. Therefore developers are incentivized to build according to smart growth principles to avoid costly impact fees.

Resources on several smart growth development strategies, including [transit-oriented development](#), [brownfields development](#), and [infill incentives](#) are available through the PolicyLink Equitable Development Toolkit.

***Promote Improved Public Transportation.*** Asthma advocates and public transit advocates have a natural alliance. Public transit improvements can reduce car use, thereby improving air quality. Effective public transit also increases access to healthcare for those without cars, helping asthma patients more easily reach their doctors and emergency rooms whenever necessary to manage symptoms and even prevent early death. Many communities are in need of transit investments to ensure convenient, affordable, fast, high-quality transit systems for all residents.

In 2008, [West Harlem Environmental Action, Inc. \(WE ACT\)](#) partnered with civic, environmental, public health, labor, community, and business organizations on a [campaign](#) urging public transit riders to support a congestion pricing plan that would improve public transit and reduce traffic. Cecil Corbin-Mark, deputy director of WE ACT noted, “... congestion pricing isn’t just about reducing traffic; it’s also about generating revenue to make transit faster and healthier. This will benefit all New Yorkers, and especially those suffering from asthma and other respiratory illnesses.” While the congestion pricing legislation failed to pass in New York, the coalition was successful in getting the attention of the governor, policymakers, and the public focused on the need to reduce traffic and increase air quality. Mayor Bloomberg denounced the decision

saying it was “a sad day for New Yorkers and a sad day for New York City.” WE ACT is continuing to build on the partnerships they’ve created and the support of the governor to develop innovative approaches for addressing poor air quality in Harlem.

Asthma advocates also have focused on improving transit systems. By gathering data about air pollution in Harlem, petitioning local government, partnering with elected officials and organizing local residents, WE ACT successfully convinced local transportation officials to minimize idling at local bus depots. They continue to advocate for the conversion of buses to cleaner vehicles, such as hybrid-electric buses.

The case study in [“The Tool in Action”](#) section of this tool features more details on the multiple efforts of WE ACT to increase air quality in Harlem. The [Transportation for America](#) campaign is another helpful resource for advocates interested in working at the federal level to influence transportation spending.

***Ensure Consideration of Health Impacts in Land Use Planning Decisions.*** Asthma advocates note the critical connections between health and land use and are working to ensure that the health impacts of planning and development decisions are not ignored. New policy and regulatory frameworks are needed to address health concerns in the development and review of urban planning policies, projects, and plans. There are a number of ways to ensure health impacts are considered in the planning process—health considerations can be incorporated into existing municipal general plans through a new health element or incorporated throughout all elements; specific development projects, area plans, zoning plans, and transportation plans can also incorporate an assessment of potential positive and negative health impacts. Health impact assessments can be done by advocates, by the planning or health departments as an institutional policy, or mandated by local or state laws in the same way environmental impact assessments are required in a number of states.

Public participation in land use planning is also critical to ensure that health advocates and community residents are included in important decision-making processes. Often, those most impacted by land use changes are excluded from the planning process. Community-based organizations and coalitions are working to address these issues in a variety of ways.

In Detroit, a coalition of local community-based organizations, local residents, and partners from the University of Michigan used data and community advocacy to demand that health considerations be integrated into discussions about expanding a bridge from Detroit to Canada—which will create additional pollution in low-income communities of color in Detroit that are already disproportionately impacted by air pollution. The discussions are still underway, but the coalition has succeeded in getting policymaking bodies such as the Michigan Department of the Environment and the Michigan Department of Transportation to better incorporate community participation into their decision-making processes. One Michigan advocate notes that in addition to ensuring community input in these processes, another needed policy is to ensure that health impacts are included in these types of decisions. She explains, “If they can do modeling for environmental impact assessments, they should be able to do modeling for health impacts as well.”

[Community Action to Fight Asthma](#), a network of asthma coalitions in California, successfully advocated to ensure that statewide infrastructure bond money is targeted to communities with the highest health risks, and that community participation in project decisions will be emphasized. Similarly, the case studies from [Long Beach](#) and [Harlem](#) in [“The Tool in Action”](#) section show how other groups have worked to incorporate health considerations into expansion or development plans of highways, ports, and garbage truck transfer stations. [Public Health Law and Policy](#) provides a toolkit on incorporating health considerations into general plans and zoning policies, and [Human Impact Partners](#) provides a toolkit on Health Impact Assessments.

***Address the Disproportionate Health Effects of Goods Movement on Low-Income Communities.*** There are many groups across the nation working to reduce pollution generated by trucks idling at ports and by rail yards. For example, in California, neighborhood assessment teams from the [Long Beach Alliance for Children with Asthma](#) gather information about inordinate pollution caused by the ports and goods movement and use it to advocate for stricter air quality requirements. Similarly, the [West Oakland Environmental Indicators Project](#) conducted a community-based research effort that showed that West Oakland, a predominantly low-income community of color next to a busy port, faces a disproportionate burden of environmental and health threats from diesel pollution. The study not only showed the disparity, but also identified many immediate solutions that would improve conditions.

***Capitalize on the Attention to Global Warming Issues to Raise Awareness and Improve Air Quality.*** The issue of global warming has increased public awareness of the urgency to reduce air pollution in an effort to control the global climate. There is an opportunity to capitalize on this expanded public attention to address the environmental contributions to asthma. Currently, 28 states and the District of Columbia have [passed legislation or adopted standards requiring electricity derived from renewable sources](#), one important way to address global warming. There are also opportunities to expand “green” sectors of the economy, such as energy retrofitting and solar panel manufacturing. These efforts can reduce greenhouse gases, benefiting children with asthma.

Asthma coalitions are using public attention on global warming to help reduce air pollution. For example, Virginia’s [Greater Roanoke Asthma and Air Quality Coalition](#) is participating in a larger coalition, the [Roanoke Valley Cool Cities Coalition](#) to address air pollution problems through the lens of global warming. They tackle energy policy as well as do outreach, education, and community actions to address global warming in concert with their work to fight asthma.

***Hold Industries and Government Accountable.*** Strategies for improving air quality focus on pressuring polluting industries, ensuring compliance with existing laws, creating stronger air quality laws, and tracking the relationship between air quality and health. Legal action by grassroots organizations, advocacy efforts by environmental justice organizations, and state legislative and regulatory agency changes have all contributed to improvements in air quality. For example, the [Merced/Mariposa County Asthma Coalition](#) organized residents in California’s Central Valley to hold local and state officials accountable for improving air quality in the region.

In a national effort, environmental health and justice advocates, including asthma advocates, are urging the EPA to adopt stronger standards to limit air pollution. In 2007, advocates filed suit against the EPA to address weak federal regulations on particulate pollution.

In the absence of strong regulations and enforcement from the federal government, states are working to pass stronger statewide regulations. Eighteen states and seven environmental groups are suing the EPA to be allowed to have stricter state air

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# Challenges

In 1970, Congress passed [The Clean Air Act](#) to help address high levels of air pollution. This act set air quality standards to assure public safety, to protect the public from environmental contaminants, and to reduce the amount of pollutants released in the air. Nevertheless, some industries fail to comply with related laws and regulations, repeatedly ignoring them and amassing numerous violations.

Unfortunately, the Environmental Protection Agency (EPA) has not prioritized enforcement of industry compliance with the Clean Air Act. U.S. Justice Department statistics show that from 2001 to 2005, there was a 36 percent decline in both industry compliance prosecutions and convictions for environmental crimes. Additionally, the numbers of cases the agency opened declined 37 percent in the same time period.

In addition to weak enforcement of existing air pollution standards, some land use, environmental, and economic trends have contributed to worsening outdoor air pollution and asthma. For example:

**Urban Sprawl.** For over 50 years, jobs, population, and investments have been generally shifting away from cities and older suburbs to the fringes of metropolitan areas. This sprawling pattern of development has been linked to a range of problems, including greater reliance on cars and therefore increased air pollution.

**Global Warming.** Overwhelming evidence now shows that global warming is occurring. Researchers on seven continents predict that, without intervention, temperature increases will lead to drought, heat waves, food shortages, diseases—and ultimately, war, social upheavals, and economic instability. Researchers have found that higher temperatures in urban environments increases ground-level ozone, which can trigger asthma attacks. Research has also indicated that various other environmental conditions exacerbated by raised temperatures, such as increased pollen and desertification, also impact respiratory health, including asthma.

**Globalization and Goods Movement.** Transportation and communication systems have sped up the diffusion of goods and people across the globe. Unfortunately, lower-income communities and communities of color frequently live near goods movement infrastructure—such as heavily trafficked and expanding highways, bridges, rail yards, airports, and ports—and are left to bear the burden of the pollution as a result.

These are challenging trends that call for new partnerships, increased public attention to outdoor air quality, and effective advocacy strategies to push for needed changes.

Fortunately, changing existing trends can create huge benefits. Research indicates that asthma symptoms can be improved by improving air quality. For instance, during the summer Olympics of 1996 in Atlanta, Georgia, traffic was shut down in the center of the city with the result that air pollution significantly dropped. During that same time, visits to the doctor and hospitalization for childhood asthma in Atlanta dropped dramatically. Also, scientists have shown that children's bodies are resilient. When a child's air quality improves, their respiratory growth improves—as studies show, children who move to more polluted communities have poorer lung growth while children who move to cleaner communities have increased lung growth.

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# Resources

## Organizations

American Lung Association

<http://www.lungusa.org>

Community Action to Fight Asthma

<http://www.calasthma.org>

Central Air Valley Coalition

<http://www.calcleanair.org>

Contra Costa Asthma Coalition (Contra Costa County)

<http://www.cchealth.org/topics/asthma>

Environmental Protection Agency

<http://www.epa.gov>

Greater Roanoke Asthma and Air Quality Coalition

<http://www.breatheroanoke.org>

Human Impact Partners

<http://www.humanimpact.org>

Long Beach Alliance for Children with Asthma

<http://www.lbaca.org>

Merced/Mariposa County Asthma Coalition

[http://www.calasthma.org/asthma\\_in\\_your\\_area/CV/view\\_coalition/MMCAC](http://www.calasthma.org/asthma_in_your_area/CV/view_coalition/MMCAC)

National Latino Research Center

<http://www2.csusm.edu/nlrc>

Public Health Law and Policy

<http://www.phlaw.org>

Regional Asthma Management and Prevention

<http://www.rampasthma.org>

Roanoke Valley Cool Cities Coalition

<http://www.rvccc.org>

San Diego Regional Asthma Coalition (San Diego County)

<http://www.asthmasandiego.org>

San Joaquin Valley Air Pollution Control District

<http://www.valleyair.org>

Transportation for America

<http://t4america.org>

West Harlem Environmental Action

<http://www.weact.org>

West Oakland Environmental Indicators Project

<http://www.neip.org>

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