

If you have asthma,

**you can
be active,**

**you can
be healthy,**

**you can
be a kid!**



Learn how to control your asthma.

Exercise can affect a child's asthma but don't let it stop them. Many Olympic athletes have learned how to control their asthma. Doctors, teachers and coaches can help children with asthma be active and safely exercise. Together we can all learn how to control asthma.

FOR FREE INFORMATION CONTACT:

Long Beach Alliance for
Children with Asthma

562-366-5919

www.lbaca.org



Si tienes asma,

**puedes
ser activo,**

**ser
saludable,**

**¡ser un
niño sano!**



Aprende a controlar tu asma.

El ejercicio puede afectar el asma del niño, pero el ejercicio es necesario. Muchos atletas Olímpicos han aprendido a controlar el asma. Doctores, maestros y entrenadores de deportes escolares pueden ayudar a los niños a ser activos incluyendo su participación en ejercicio y deportes. Juntos podremos aprender a controlar el asma.

PARA MAS INFORMACIÓN LLAME A:

La Alianza de Long Beach
para Niños con Asma

562-366-5919

www.lbaca.org



Elina Green, MPH
Project Manager

LONG BEACH ALLIANCE FOR CHILDREN
WITH ASTHMA



2651 Elm Avenue, Suite 100
Long Beach, CA + 90806
562-427-4249 + Fax 562-427-8438
egreen@memorialCare.org
www.lbaCa.org



The Asthma Coalition of Los Angeles County invites you to...



WORLD ASTHMA DAY

A community day of action to unite children, adults, and advocates working to combat asthma in Southern California

Saturday, May 6, 2006

9:00 am-12 noon

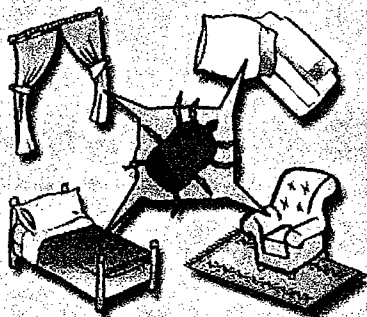
● **9am Welcome** ● **9:30-10:30 Neighborhood March** ● **10:30-12noon Education Fair** ●

Hooper Ave Elementary School
1225 E 52nd St, Los Angeles, 90011

Don't miss the official release of the Asthma Coalition's "Call to Action!"

Learn more about:

- **How to reduce asthma triggers in your home**
 - **How to manage your child's asthma**
- **How air pollution and asthma are connected**
- **Improving asthma management in schools**








Neighborhood March!
Speakers!
Activities for Children!

Health Education Fair!
Prizes!
Refreshments!

*For more info: Melissa Burch, Physicians for Social Responsibility
Email: mburch@psr.org Tel: 213-689-9170*



Asthma Facts

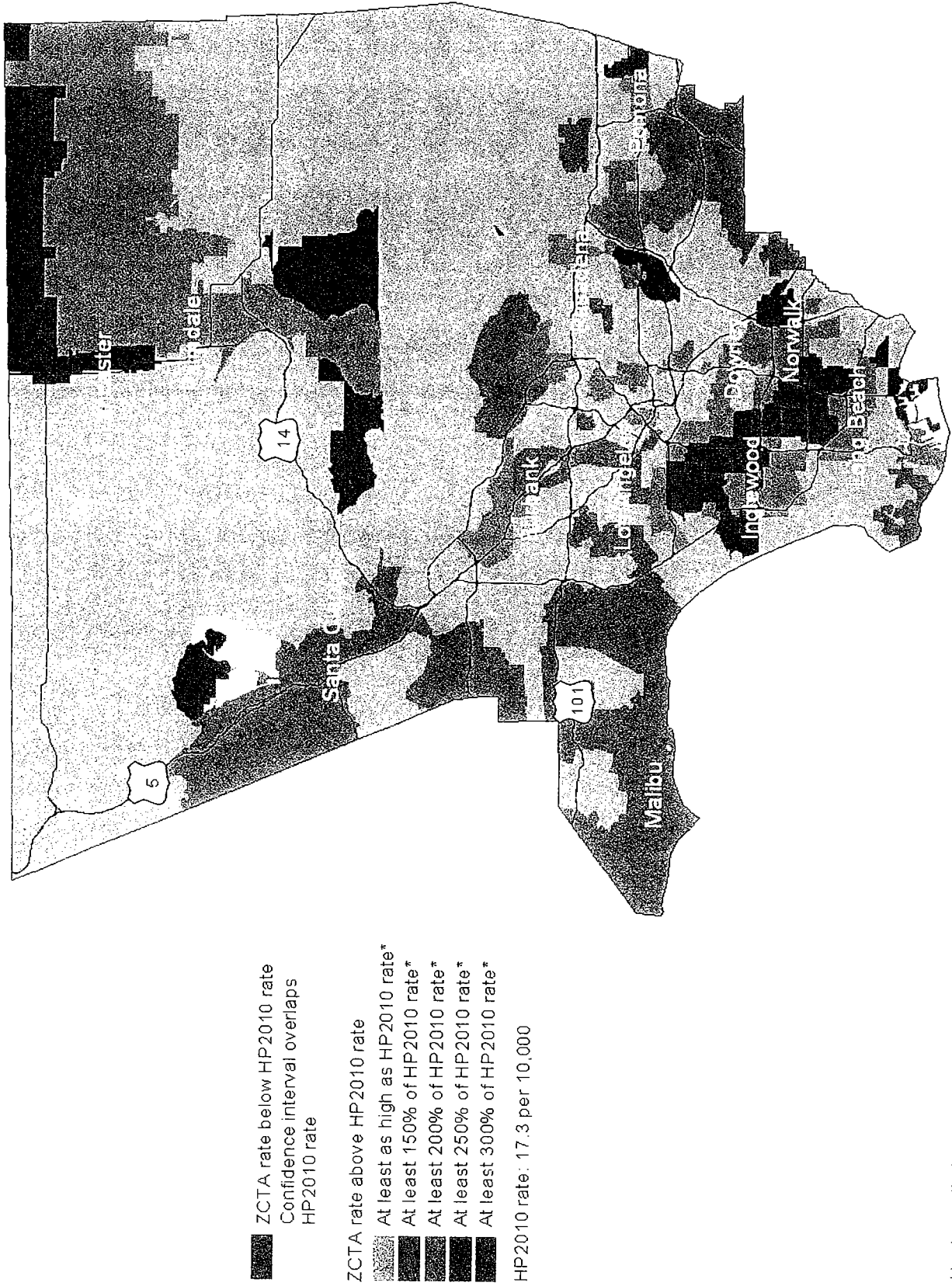
- Asthma currently affects 17.3 million Americans (Public Health Policy Advisory Board, March 2002).
- A recent report from the Pew Environmental Health Commission projects estimated that by 2020, asthma will affect 29 million Americans. 
- Deaths due to asthma in the US tripled between 1977 and 1998. (Public Health Policy Advisory Board, *Asthma: Epidemic Increases, Cause Unknown, March 2002*) 
- 34 Americans die every day from asthma-related causes. (Public Health Policy Advisory Board, *Asthma: Epidemic Increases, Cause Unknown, March 2002*)
- The estimated cost of asthma exceeds \$12 billion per year. (Public Health Policy Advisory Board, *Asthma: Epidemic Increases, Cause Unknown, March 2002*)
- Nurses in the Long Beach Unified School District have identified asthma as the number one physical health problem among school aged children in the City of Long Beach and the leading cause for missed school days. 
- It remains the most prevalent diagnosis in admissions to the pediatric intensive care units at Miller Children's Hospital and St. Mary's Medical Center, especially from zip code 90813, where hospital discharge data reflects a total of 815 hospital days and 804 emergency room visits due to asthma 
- California has the highest prevalence and greatest number of people with asthma than any other state
- Approximately 3 million Californians suffer from asthma symptoms; approximately 667,000 are children ages 6-17. (2001 Californians Health Interview Survey)
- An estimated 3.9 million Californians have been diagnosed with asthma at some point in their lives. Approximately 924,000 are children ages 6-17. (2001 CHIS)
- More than 30,000 children with asthma visited an emergency room because of their asthma during the past year. (2001 CHIS) 
- Asthma affects people of all ages, races, and gender; however, the disease disproportionately affects children, African Americans and women in adulthood.

The Long Beach Alliance for Children with Asthma
2651 Elm Ave. Suite 100
Long Beach, CA 90806
(562) 427-4249



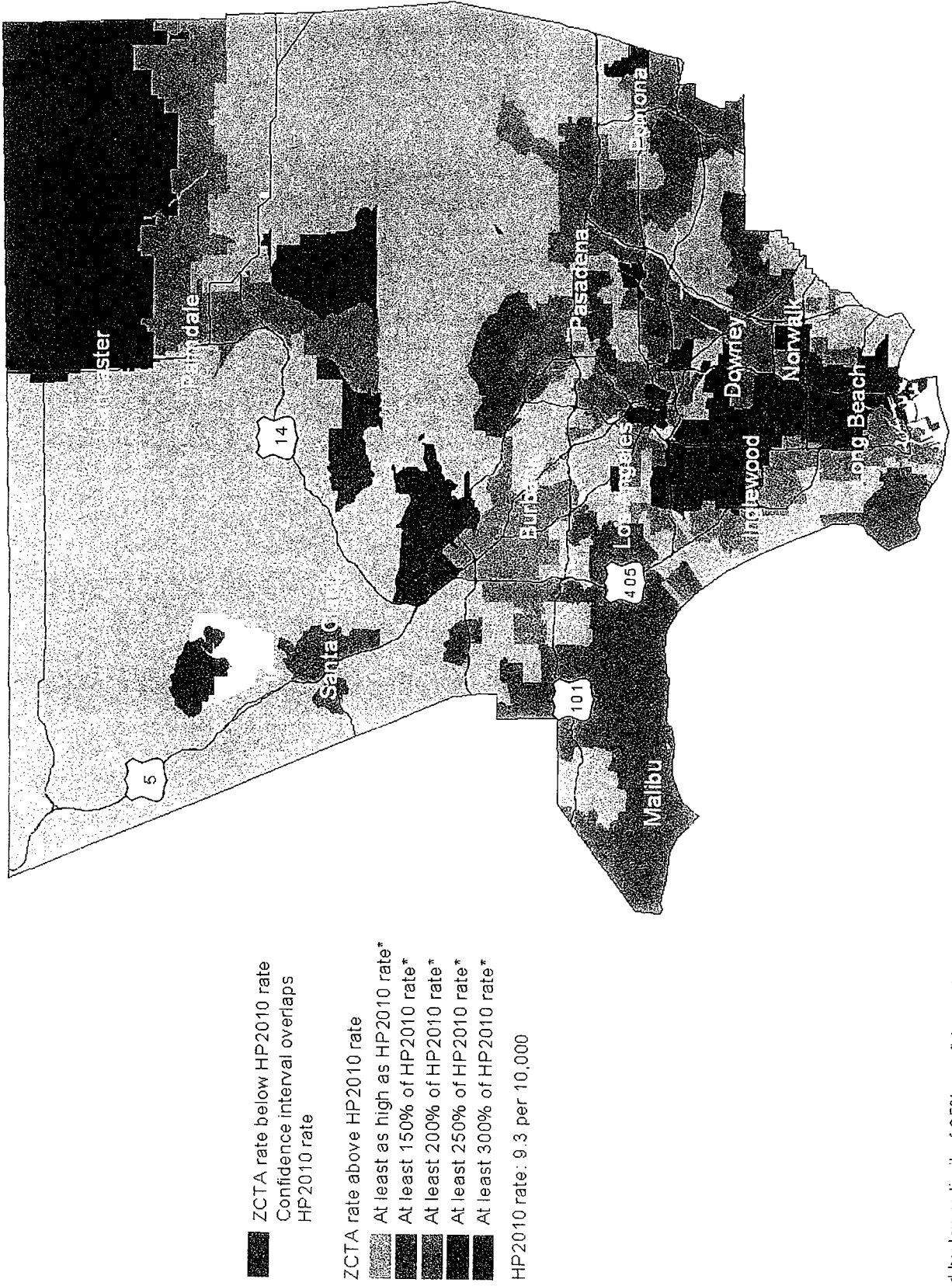
Los Angeles County:

Annual asthma hospitalization rates among children 0-14 by zip code tabulation area (ZCTA) for 1998-2000



* as judged by lower limit of 95% confidence interval

Los Angeles County: Annual asthma hospitalization rates for all ages by zip code tabulation area (ZCTA) for 1998-2000

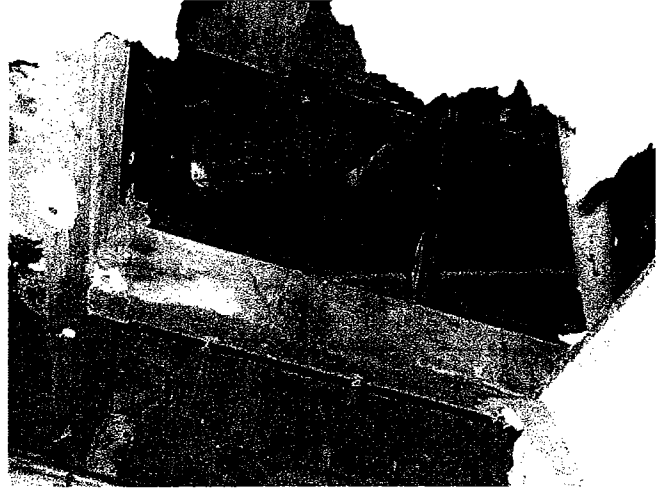


* as judged by lower limit of 95% confidence interval

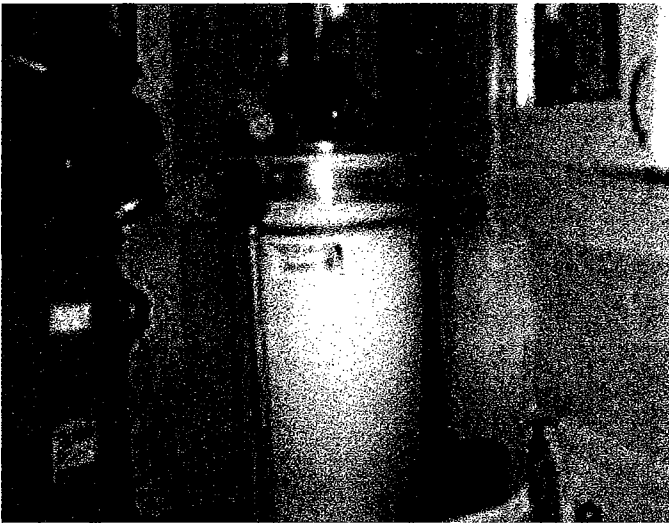
LBACA's Home Visiting Housing Issues



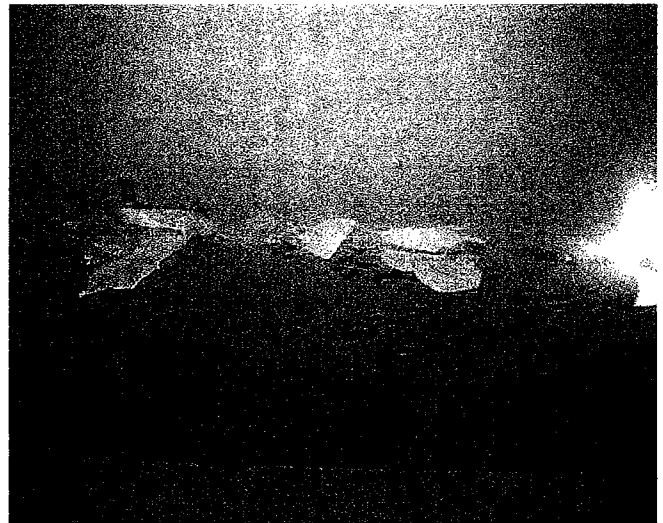
Entrance to home. Note hole in ceiling



Close up of ceiling hole. Caused by water damage from upstairs unit. Plumbing of upstairs unit exposed



Water heater in family bathroom



Water damage from upstairs unit. As ceiling becomes saturated a "bomb" is created and eventually explodes. Peeling paint, mold



Hole in wall. Provides access for rodents from outside



Water damaged window frame. Peeling lead paint near child's bed.



**We Can
Control Asthma Now**

Do You Know a Child with Asthma?

**If you do, they may be eligible for our
Community Health Worker Asthma Education Program**

COST: FREE

To participate the child must:

- *Live in Long Beach**
- *Be under 18 years old**
- *Have Persistent Asthma, Recent Emergency Room Visits,
Hospitalizations, or Missed School Days Due to Asthma**

The Community Health Worker will:

- *Visit your home 3 to 5 times**
- *Teach you about asthma, how to control your child's asthma and the
asthma triggers in your home**
- *Teach you to work with your doctor, schools, insurance company,
and pharmacies as an Asthma Team**
- *Provide FREE household items (mattress cover, pillow cover, non-
toxic cleaning supplies) to help reduce asthma triggers**
- *Link families to appropriate services
....and much more**



For more information call:
The Asthma Resource Center (562) 366-5919
Long Beach Alliance for Children with Asthma (562) 427-4249



Juntos Podemos Controlar el Asma

¿Conoce un Niño que tenga Asma?

Si conoce alguien con asma pueden ser elegibles para nuestro Programa de Educadores de Salud sobre el Asma

COSTO: GRATIS

Para participar el niño debe:

- *Vivir en Long Beach
- *Ser menor de 18 años de edad
- *Tener asma persistente, recientes visitas a la Sala de Emergencias, Hospitalizaciones, o Dias Ausentes de Escuela debido a Asma

La Trabajadora de salud va a:

- *Visitar su casa de 3 a 5 veces
- *Enseñarle acerca de asma, como controlar la asma de su niño y los provocantes de asma en su casa
- *Enseñarle como trabajar con su doctor, la escuela y la compañía de haceguranza, y farmacia como un equipo
- *Proveer GRATIS cosas para el hogar (fundas y sabanas anti-alergenicas, productos de limpieza no toxicos) para ayudar a reducir los provocates de asma
- *Conectar a las familias a servicios apropiados y mucho más



El

Para más información llame a:
El Centro De Recursos De Asma al (562) 366-5919 o
La Alianza de Long Beach para Niños con Asma al (562) 427-4249



Long Beach Alliance for Children with Asthma

ASTHMA CLASSES

Learn to control yours child's asthma!

How to recognize asthma

How to reduce asthma triggers

How to work with your doctor

How to take asthma medication

Referrals to:

Community Health Workers

Health Care Providers

Health Insurance Recourses

Asthma Resource Center

All classes held at :

Vasek Polak Children's Clinic Family Center

1057 Pine Ave. Long Beach 90813

1057 Pine Ave. Long Beach 90813



THURSDAY CLASSES

FREE CLASSES

JUNE 15, 2006
5:00 PM-7:00 PM

JULY 20, 2006
5:00 PM-7:00 PM

AUGUST 17, 2006
5:00 PM-7:00 PM

SEPTEMBER 21, 2006
5:00 PM-7:00 PM

OCTOBER 19, 2006
5:00 PM-7:00 PM

NOVEMBER 16, 2006
5:00 PM-7:00 PM

DECEMBER 14, 2006
5:00 PM-7:00 PM



SATURDAY CLASSES

FREE CLASSES

JUNE 3, 2006
10:00am-12:00pm

JULY 8, 2006
10:00 am-12:00 pm

AUGUST 5, 2006
10:00 am-12:00 pm

SEPTEMBER 9, 2006
10:00 am-12:00 pm

OCTOBER 7, 2006
10:00 am-12:00 pm

NOVEMBER 4, 2006
10:00 am-12:00 pm

DECEMBER 2, 2006
10:00 am-12:00 pm

For more information call
Long Beach Alliance for
Children with Asthma
(562) 427-4249

JUEVES
CLASES

CLASES GRATIS

- JUNE 15, 2006
5:00 PM-7:00 PM
- JULY 20, 2006
5:00 PM-7:00 PM
- AUGUST 17, 2006
5:00 PM-7:00 PM
- SEPTEMBER 21, 2006
5:00 PM-7:00 PM
- OCTOBER 19, 2006
5:00 PM-7:00 PM
- NOVEMBER 16, 2006
5:00 PM-7:00 PM
- DECEMBER 14, 2006
5:00 PM-7:00 PM



La Alianza de Long Beach Para Niños con Asma

CLASES DE ASMA

Aprenda como controlar el

asma de su hijo/a

- Como reconocer el asma
- Como reducir provocantes
- Como trabajar con su doctor
- Como tomar sus medicinas para el asma

Referencias a:

- Programa de Promotoras de Salud*
- Proveedores de Salud*
- Recursos para aseguranza medica*
- Centro de Recursos para el asma*

Todas las clases son en:

Vasek Polak Children's Clinic Family
Health Center
1057 Pine Ave. Long Beach 90813

SABADO
CLASES

CLASES GRATIS

- JUNE 3, 2006
10:00 AM-12:00 PM
- JULY 8, 2006
10:00 AM-12:00 PM
- AUGUST 5, 2006
10:00 AM-12:00 PM
- SEPTEMBER 9, 2006
10:00 AM-12:00 PM
- OCTOBER 7, 2006
10:00 AM-12:00 PM
- NOVEMBER 4, 2006
10:00 AM-12:00 PM
- DECEMBER 2, 2006
10:00-12:00 PM

Para mas información
llame a:

La Alianza de Long Beach
Para Niños con Asma
(562) 427-4249



What is the Long Beach Alliance for Children with Asthma?

The Long Beach Alliance for Children with Asthma (LBACA), started in 1999, is a partnership to improve the lives of children with asthma in the Long Beach community. LBACA is one of 7 sites in the US and Puerto Rico awarded grants under the Robert Wood Johnson Foundation's *Allies Against Asthma* program, and one of 12 sites in California awarded grants under The California Endowment's *Community Action to Fight Asthma* (CAFA) Program. Focus is on Long Beach and its surrounding communities.



What are the coalition's current activities?

LBACA's activities include a community health worker home visiting program, an asthma resource center, Physician Asthma Care Education training to improve physician asthma management skills and training medical assistants to provide asthma education to patients at provider sites. LBACA is also teaming up with schools, after-school programs, parks and recreational centers to develop asthma-friendly environments and policies; and mobilizing the community to respond to air quality issues, both indoors and outdoors.



What are the coalition's long-term objectives?

- 1) To change the profile of childhood asthma in the most affected areas of the City of Long Beach through improved healthcare delivery and quality, outreach, education, support systems, improved living environments and changes in policy at all levels.
- 2) To improve clinical outcomes including reduction in preventable hospitalizations, emergency room visits, and school absenteeism due to asthma, and enhanced quality of life measures.

Who is represented in the coalition?



Long Beach Memorial Medical Center; Miller Children's Hospital; The Children's Clinic; parents of children with asthma; community residents; the Long Beach Department of Health and Human Services; Miller Foundation; Long Beach Unified School District; Families in Good Health at St. Mary's Medical Center; Head Start; Healthy Connections; Greater Long Beach YMCA; American Lung Association of Los Angeles County; Partnership for the Public's Health; Universal Care; LA Care Health Plan; CSULB; USC; Long Beach City College; Community Partners Council; City of Long Beach Neighborhood Improvement Project and Dept of Parks and Recreation; Long Beach Press Telegram; State Assemblymember Betty Karnette's Office; State Senator Alan Lowenthal's Office; Councilmember Bonnie Lowenthal's Office; Apartment Association of CA Southern Cities; South Coast Air Quality Management District; Coalition for Clean Air; Sick of the Port; Physicians for Social Responsibility; CORAL After School Program; Legal Aid Foundation; Smokefree Apartment House Registry; Merck & Co.; and GlaxoSmithKline.

Funding and Support



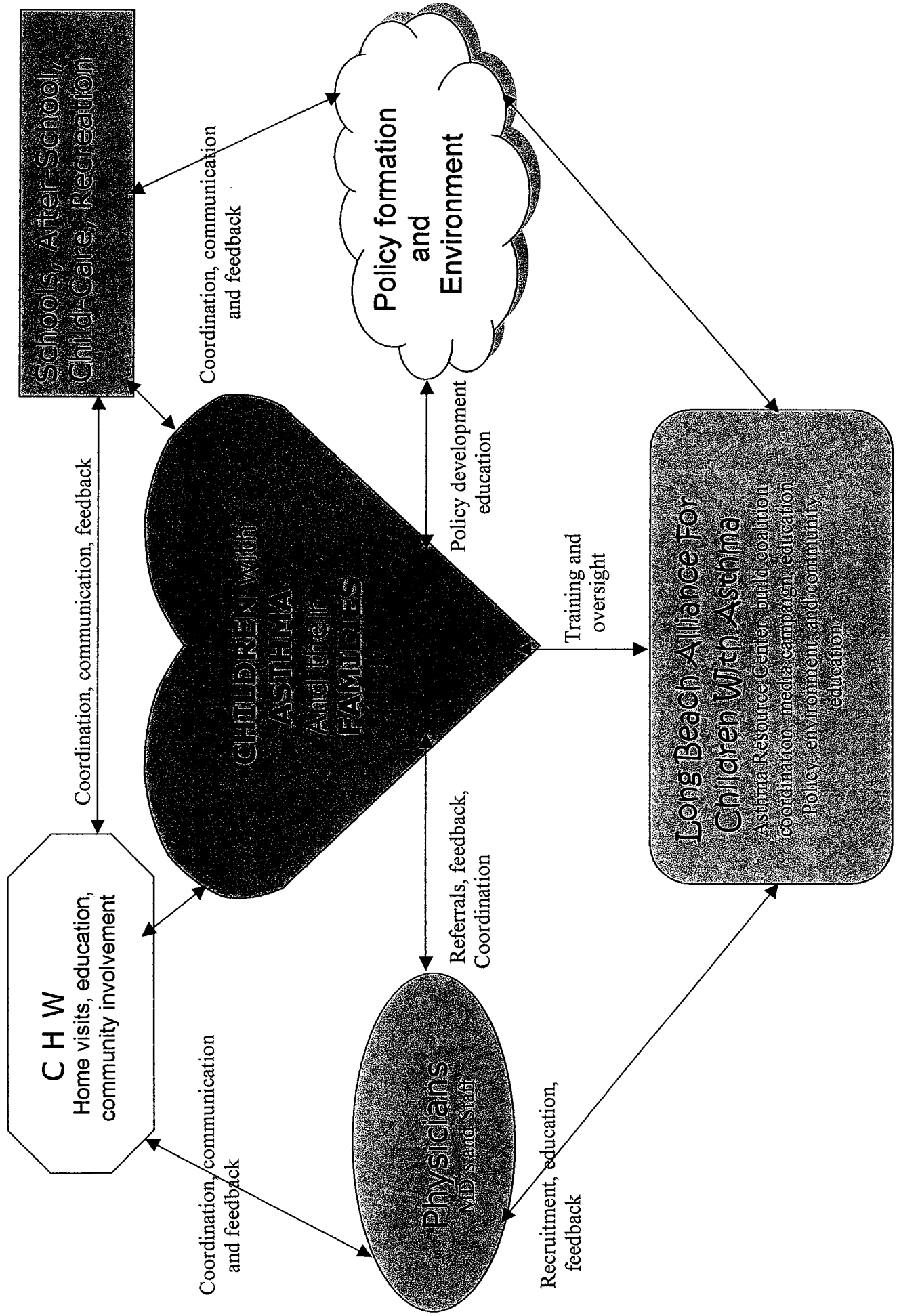
LBACA is supported by The Robert Wood Johnson Foundation, The California Endowment, Johnson & Johnson, Miller Foundation, LA Care, Kaiser Permanente, the Josephine S. Gumbiner Foundation, Miller Children's Hospital, EPA and National Institute for Environmental Health through USC Children's Environmental Health Center, and Long Beach Memorial Medical Center.

How can I contact LBACA?



If you'd like to join LBACA, or if you would like more information about us, please contact Elisa Nicholas, MD, MSPH, Project Director or Elina Green, MPH, Project Manager at 562-427-4249.

Long Beach Alliance For Children With Asthma Strategic Plan



Controlling Asthma in Los Angeles County: A Call to Action

Adopted 4/10/06

Executive Summary

Asthma is a very common condition in Los Angeles County – research among school children in urban Los Angeles indicates that 14% are likely to have asthma. Significantly reducing quality of life, asthma increases emergency room and hospitalization rates, causes missed school and work days, reduces physical activity, and has serious economic impacts on our health care and economic systems. These negative impacts are largely preventable because asthma is a controllable disease. However, in many cases asthma is not well controlled, indicating that previous efforts to address this problem in Los Angeles County have been insufficient.

Over the course of eighteen months, from fall of 2004 to spring of 2006, the Asthma Coalition of Los Angeles County developed a policy paper about the impact of asthma on Los Angeles County residents, the factors that contribute to this disease, and recommendations for improving asthma outcomes. The coalition formed a committee that analyzed local data on asthma, researched state and national recommendations for controlling asthma, reviewed policy papers published by asthma coalitions in other cities and states, and sought input from numerous experts, ranging from prevention and clinical care professionals to environmental policy advocates and university researchers. It is the Coalition's hope that this "Call to Action" will not only raise awareness among public officials, community leaders, and people working to improve asthma-related policies and systems of care, but also serve as a catalyst for these same people to come together and jointly implement recommendations proposed in this document.

This policy paper provides evidence-based recommendations in six key areas that, implemented effectively, will improve asthma outcomes countywide. The recommendations are aligned with national and state asthma guidelines for improving the quality of medical care and indoor and outdoor air quality.

Summary of Recommendations:

1) Increase Access to and Improve Quality of Health Care, including promoting the concept of a medical home; offering professional development opportunities; promoting asthma disease management; providing access to specialists and home-based interventions; and improving reimbursement for asthma care.

2) Improve Indoor Air Quality in Homes and Workplaces, including educating families and landlords; improving code enforcement by City and County housing inspectors; offering incentives for following green building standards; and requiring landlords to bring all properties up to health and safety standards.

3) Improve Asthma Management in Schools and Child Care Centers, including obtaining a written *Asthma Action Plan* for students with asthma; educating school staff on asthma management; improving indoor air quality in schools and child care centers; and enabling children to self-carry asthma medications.

4) Improve Outdoor Air Quality, including supporting policies that address pollution from ports and industrial facilities; promoting lower emission technologies for cars, buses, and construction equipment; and improving the quality of the public transportation system.

5) Address race/ethnic and socio-economic disparities, including expanding the safety net for low-income, uninsured residents; enhancing the cultural sensitivity of asthma management materials and programs; and prohibiting the disproportionate location of hazardous industries in low-income communities.

6) Strengthen research related to asthma, including improving data collection related to asthma prevalence, and geographic, race/ethnic and socio-economic disparities; investigating potential causes and risk factors for asthma; and identifying best practices in identification and treatment of children with asthma.

Next Steps

Developing and disseminating this document will not, in and of itself, improve asthma outcomes in Los Angeles County. The Los Angeles Asthma Call to Action calls upon City, County, and State officials, health and environmental organizations, hospitals, community clinics, universities and health care professionals to work together to implement the recommendations in the Call to Action. Only by fostering the synergy that emerges from collaborative work can Los Angeles County effectively control asthma. We look forward to partnering with you.

Controlling Asthma in Los Angeles County: A Call to Action

Adopted 4/10/06

I. INTRODUCTION

Asthma is a very common condition in Los Angeles County – research among school children in urban Los Angeles indicates that 14% are likely to have asthma.¹ Nationwide, prevalence has increased dramatically in recent decades, with the most prominent increases among children 0 – 14 years.² Asthma significantly reduces quality of life for patients, is responsible for over 12,000 hospitalizations annually in Los Angeles County, and causes more missed school days than any other chronic condition. In addition, asthma is associated with anxiety for patients and family members, reduces physical activity, and has enormous financial impacts on our health care and economic systems. These negative impacts are largely preventable because asthma is a controllable disease. However, in many cases asthma is not effectively controlled, indicating that previous efforts to address this problem in our county have been insufficient.

Effectively controlling asthma and preventing exacerbations in Los Angeles County will require more than the independent efforts of the many concerned individuals and organizations interested in asthma. It will require a substantial collaborative approach among all stakeholders, backed by political will and necessary resources. It will entail strategic efforts that are carefully designed, evidence based, adequately funded, competently executed, and continuously improved. Toward that end, the Asthma Coalition of Los Angeles County – a group of diverse stakeholders involved in asthma prevention and clinical care – presents this Asthma Call to Action.

This policy paper provides evidence-based recommendations in six key areas that, implemented effectively, will improve asthma outcomes countywide. The recommendations address access to and quality of health care; indoor air quality in homes and workplaces; asthma management in schools and childcare centers; outdoor air quality; race/ethnic and socio-economic disparities; and asthma related research. While the data described here address asthma among some of our most vulnerable residents – our children – asthma impacts people of all ages in Los Angeles County and the recommendations in this document are intended to improve asthma outcomes among both adults and children.

Prevalence and disparities

While the prevalence of known childhood asthma in Los Angeles County is 8%³, this likely reflects significant under-diagnosis in many communities. Research conducted among school children in urban Los Angeles estimates prevalence rates of probable asthma at 14%.¹ Asthma strikes hardest among minority and low-income populations. More than one in four African American school children in urban Los Angeles have probable asthma¹, and hospitalization rates for asthma are three times higher for African American children than for children of other racial and ethnic groups.⁴ Latino children with asthma experience more than twice as much activity limitation compared to white children with

asthma. Children with asthma living in poverty are more likely to visit the emergency room (35%) than are children with asthma living above the poverty level (23%).³

Personal and economic impacts

Most people with asthma should not require emergency room services or hospitalizations and should not have to limit their physical activities if they receive appropriate medical care and measures are taken to avoid exposure to asthma triggers. However data indicate that many people with asthma do not have their disease under control. In 2002, more than one in four children with asthma (28%) had to visit an emergency room for their asthma, and more than half of these children had multiple emergency room visits. In 2002, childhood asthma accounted for nearly 5000 hospitalizations in Los Angeles County.⁵ In the same year, 9 children and 119 adults in the county lost their lives due to asthma.⁶

The cost of caring for patients with asthma varies greatly depending on the person's level of asthma control. Data from the National Institutes of Health (NIH) indicate that annual costs are lowest – \$450 – for patients whose asthma is well controlled, compared to \$5000 annually for patients with more than one hospital admission.⁷ For patients with severe asthma, costs are even higher. A study following patients with severe or difficult-to-treat asthma for two years indicated that the average costs for patients who achieved control were \$6,452, while average costs for patients who remained uncontrolled during the two-year period were \$14,213.⁷ Clearly, helping people with asthma to control their disease would greatly benefit both patients and health care systems.

Role of indoor and outdoor air quality

Indoor environmental triggers such as tobacco smoke, dust mites, cockroaches, mold and animal allergens often increase the frequency of asthma symptoms and many children with asthma are routinely exposed to such triggers. For example, ten percent of children with asthma in Los Angeles County are exposed to tobacco smoke in the home on a regular basis.³

Poor outdoor air quality increases the risk for developing asthma and increases symptoms among asthma sufferers. California has the highest levels of air pollution in the nation, with the Los Angeles Metropolitan region having the worst air in the state. Studies in Southern California indicate that exposure to air pollution reduces growth of lung function in children—even in children without asthma.⁸ Living in highly polluted communities increases the risk of developing asthma and increases symptoms among children that already have asthma. School absence rates related to acute respiratory illnesses directly correlate with elevated air pollution levels.⁹

II. RECOMMENDATIONS

The causes of asthma are a complex interplay between genetics and environment. While we can not yet alter our genes, the quality and accessibility of health care for Los Angeles communities affected by asthma *can* be changed, and the quality of the air we breathe in the places where people live, work, learn, and play *can* be improved. And we *can* promote research, understanding, and collaboration that drive continuous improvement.

Just as a capable medical provider sits down with a patient to create a plan for managing his/her asthma, the Asthma Coalition of Los Angeles County has crafted a set of

recommendations to address this chronic disease and its impacts on our county. These recommendations—aligned with national and state asthma objectives^{10 11} – are driven by the social, economic and medical impacts of asthma. They provide a “way forward” – a set of actions that can improve prevention and management of asthma in Los Angeles County. The actions fall into six categories that reflect both our current understanding of the causes of asthma and the measures that have proven or are likely effective in managing the disease.

The Los Angeles Asthma Call to Action calls upon City, County, and State community and elected officials, health and environmental agencies and organizations, hospitals, community clinics, and health care professionals to join together to implement the recommendations in the Call to Action.

1) Increase access to and improve quality of health care

Important strategies for improving asthma management include improving access to high quality asthma care, equipment and medication; providing culturally and linguistically appropriate health education to people with asthma; and providing training opportunities for health care providers including the clinical staff within community health centers, clinics, hospitals, and private provider practices. Health care provider training programs have been demonstrated to increase adherence to the National Asthma Education and Prevention Program (NAEPP) guidelines and to decrease emergency room visits and hospitalizations.^{12 13}

Perhaps most important however, is a sea change in the way we think about asthma care. Rather than accept current reality – which is that many asthma patients receive only episodic, emergency care – we need to promote integrated and systematic approaches that successfully shift patients with asthma from episodic care to preventive care. This sea change would include local case detection efforts linked to effective intervention programs. It would mean coordinating asthma care between systems, so that multiple services can be offered to targeted patients and those that need more intensive care can get it. It would include mechanisms for measuring health status across providers and systems using common measures, and promoting systems that effectively track asthma control. Finally, it would mean providing adequate reimbursement for the full range of asthma preventive care. Key action items include:

- a) Provide a medical home to all people with asthma that includes high quality asthma disease management as well as accessible, continuous, comprehensive, family-centered, coordinated, compassionate, and culturally effective health care¹⁴.
- b) Support asthma disease management activities including but not limited to planned visits, careful assessments, tracking of patient health status and outcomes, adjustment of treatment plans, ongoing patient education and self management support, and care coordination for high risk patients.¹⁵ This can be achieved through appropriate restructuring in the health care setting.
- c) Provide professional development opportunities to health care providers to increase use of the NAEPP guidelines (Appendix A) for appropriate asthma management including the use of written asthma action plans.

- d) Provide professional training for all staff that encounter patients with asthma within community health centers, clinics, hospitals, emergency departments, and private provider practices to improve asthma care.
- e) Ensure access to asthma specialists (e.g. allergists and pulmonologists) for selected asthma patients according to the NAEPP guidelines, and create linkages to facilitate provider access to asthma specialists for phone, email, or “hotline” consultation regarding selected patients.
- f) Promote the establishment of coordinated systems of care that enhance clinical communication regarding asthma visits between acute care facilities (hospitals, emergency rooms, and urgent care facilities), primary care providers, and schools.
- g) Promote provider use of asthma management tools that have been developed by and are widely accepted among clinical experts including asthma action plans, pocket guides, encounter forms, and patient education materials.
- h) Promote provider use of patient assessments including 1) environmental histories/ interventions that identify individual allergic/irritant triggers and support targeted mitigation activities¹⁶; 2) assessment of functional impairment, along with resources to address them and 3) the development of comprehensive, validated, and user friendly assessment tools for the primary care setting.
- i) Promote continuous quality improvement through data collection efforts that focus on adherence to national standards and improvement of clinical outcomes. Quality improvement projects should emphasize systems change and infrastructure support and be based on effective quality improvement methodologies.¹⁷
- j) Increase health care provider knowledge and use of community resources, including home visitation and community health worker programs; and asthma programs in community based organizations, schools and workplaces.
- k) Realign financial incentives among insurers, health plans, health care systems, clinics, and providers to promote asthma disease management activities by providing adequate reimbursement rates for planned, comprehensive outpatient visits. Financial incentives should include reimbursement for the entire continuum of asthma care including culturally competent patient education and community health worker programs as well as support for information systems infrastructure.
- l) Support local, state, and federal legislation that addresses the need for Medi-Cal and other payers to reimburse for the comprehensive asthma treatment and management modalities included in the NAEPP guidelines, including all asthma medications, medical devices, and education programs.
- m) Promote policies and budget strategies that shift financial resources from emergency and tertiary care to primary prevention and to management of asthma in the primary care setting.
- n) Support efforts to redefine the billing codes – or relative value units (RVUs) – associated with asthma to make them more reflective of care that is actually provided.

2) Improve Indoor Air Quality in Homes and Workplaces

Poor indoor air quality can be a major trigger of asthma due to substandard housing and workplace conditions, including tobacco smoke, pesticides, household cleaners, allergens, toxins, irritants, and poor ventilation. Because there are many indoor sources of asthma triggers, and because people spend most of their time indoors, indoor exposures can be frequent, prolonged and high, and pose a significant risk to health. Home based

interventions can play an integral role in assisting families with reducing asthma triggers in the home environment and have been shown to decrease asthma symptoms and use of urgent health care services.^{18 19} Key action items include:

- a) Promote home-based interventions such as community health worker programs that provide families with in-home environmental assessments, education and support; deliver resources such as allergy control mattress encasements and cleaning kits; and assist with environmental remediation.²⁰
- b) Educate homeowners, tenants, landlords, property managers, licensed family child care providers and other home-based child-care providers about asthma triggers and how to reduce them in the home by addressing issues like mold, cockroaches, vermin, dust mites, pet dander, and environmental tobacco smoke.
- c) Ensure community access to smoking cessation services by providing programs in workplaces, health care facilities, community venues, and via toll free lines such as the California Smokers Helpline (1-800-NO-BUTTS).
- d) Conduct public information campaigns to raise awareness about smoking as a trigger for asthma and the dangers of smoking around children.
- e) Support the enforcement of no-smoking regulations in restaurants, bars, and workplaces and encourage efforts to provide smoke-free apartment units as well as non-smoking common areas in apartment buildings and condos.
- f) Require landlords to bring all properties up to health and safety standards, including the Los Angeles Housing Authority, and educate tenants about which City and County departments to call to report sub-standard conditions.
- g) Educate families with asthma living in rental housing about their legal rights for reasonable accommodations and modifications when a particular asthma trigger in the housing environment impacts their disability and provide families with access to legal resources²¹.
- h) Support improved code enforcement by City and County housing inspectors regarding leaky plumbing, other moisture-causing problems, and vermin infestation.
- i) Ensure that City and County public housing complies with the integrated pest management guidelines adopted by Housing and Urban Development (HUD) as a safer alternative to pesticides.
- j) Improve consumer awareness that pesticides and household cleaners can be a trigger for people with asthma and promote the use of alternative pest control methods and non-toxic cleaners in the home.
- k) Promote the use of integrated pest management practices in all public buildings and educate City and County agencies that common industrial cleaners and pesticides may trigger asthma.
- l) Partner with unions and employers to promote workplace education and surveillance regarding occupational asthma.
- m) Encourage developers to incorporate green building standards into new developments and provide incentives to do so.

3) Improve Asthma Management in Schools, Child Care Centers, and Child Care Homes

Asthma-friendly schools and childcare centers are those that create safe and supportive learning environments for students and young children with asthma. They have policies and procedures that help young children learn about asthma and eventually allow students to successfully manage their asthma. In addition, they provide guidelines and resources

to assist school personnel in creating an asthma friendly environment,²² and they evaluate their asthma programs annually and make needed improvements^{23 24}. School districts in LA County, including the Los Angeles Unified School District, have already taken significant steps to reduce environmental asthma triggers. Additional steps would ensure a safer place for children to learn and play. Key action items for the school and child care communities include:

- a) Obtain and support the implementation of a written *Asthma Action Plan* for all students with asthma from their medical provider that includes an individualized emergency protocol, medications, peak flow or symptom monitoring, and emergency contact information.
- b) Promote policies and programs that will increase the number of school nurses so that every school has a school nurse every day.
- c) Ensure that students have access at all times to medications as prescribed by their health care provider and approved by parents, as authorized by state law, and remove barriers in the school so that students with proper authorization may self-carry and self-administer their own asthma medications.
- d) Promote improved self-management skills among children with asthma and their families by providing asthma education programs such as Open Airways and Power Breathing.
- e) Provide education on asthma management, triggers, use of inhalers, and emergency procedures to all relevant school personnel, students, parents, caregivers, and community staff that work with children, such as Parks and Recreation staff and sports coaches.
- f) Develop systems and collaborative projects that promote ongoing communication between schools/child care centers and medical providers to ensure that children's asthma is well managed.
- g) Encourage school districts to provide a healthy school environment by 1) implementing an indoor air quality program such as the U.S. Environmental Protection Agency's Indoor Air Quality Tools for Schools²⁵; 2) ensuring that all school buildings meet the California State regulations related to operation and maintenance; and 3) having school maintenance personnel conduct regular self-assessments of environmental health conditions using the Healthy School Environments Assessment Tool (HealthySEAT) developed by the U.S. Environmental Protection Agency²⁶.
- h) Promote the use of integrated pest management techniques to control pests. Encourage all school districts and child care centers to adopt integrated pest management policies similar to those developed by Los Angeles Unified School District.
- i) Incorporate green building standards, such as those developed by the Collaborative for High Performance Schools (CHPS), into all new school and childcare facilities being constructed.
- j) Site new schools as far as possible from sources of outdoor pollution such as freeways and stationary pollution sources, in accordance with state law,²⁷ and promote similar siting regulations for new childcare centers, using research-based health recommendations on required distances.
- k) Support regulations, standards and policies that protect small children in child care facilities from environmental hazards.

- l) Ensure that childcare center staff serving young children with asthma are knowledgeable about when and how to administer medications prescribed by the child's health care provider, approved, and made available by parents.
- m) Work with Child Care Resource and Referral agencies to provide trainings and educational materials to child care centers countywide about emergency procedures (such as viewing the video Emergency Asthma Care Training for Childcare Providers²⁸) and how to reduce asthma triggers in the childcare center environment.
- n) Support policy efforts that protect youth from tobacco addiction, including the adoption of strong local tobacco retail licensing ordinances.

4) Improve Outdoor Air Quality

Elevated levels of particulate matter and ozone in the outdoor air can be a major trigger for asthma. This problem is particularly acute in Los Angeles County where unhealthy levels for sensitive groups are registered on approximately one out of every three days. Particulate matter from conventional diesel-powered engines causes or exacerbates asthma and bronchitis and leads to an estimated 1400 premature deaths annually in Los Angeles County.²⁹ Ozone, a main contributor to smog, is known to contribute to respiratory illness, decreased lung function and premature death. Reducing emissions from cars, trucks, ports, trains, construction equipment and refineries is essential to combating the asthma epidemic in Los Angeles County. Key action items include:

- a) Support legislation and policy that addresses the growing pollution from the Ports of Los Angeles and Long Beach; supports the reduction of emissions from the ports to 2001 levels at least, and levies charges for goods movement on those who benefit directly from it, via container or other fees, in order to pay for environmental and health mitigation.
- b) Support efforts of locally impacted communities to reduce the health and environmental impact of the goods movement industry, including emissions from ports, rail yards and diesel trucks, by ensuring meaningful community participation and transparent decision making related to transportation infrastructure.
- c) Reduce diesel emissions in LA County and promote the best available control technologies. Support and fund policy efforts that call for stronger emission standards, emission reduction regulations, retrofit regulations, early engine retirement, incentive programs, diesel reduction goals, and emission controls near sensitive communities such as schools, child care centers and hospitals.²⁷
- d) Enforce State regulations prohibiting school bus idling within 100 feet of schools. Require contracted school bus providers to convert buses to ultra low-sulfur diesel or other lower emission technologies, and install pollution control devices. New buses should be fueled with compressed natural gas.
- e) Support legislation and policy that addresses industrial pollution from refineries, manufacturing facilities and other high-risk nonvehicular sources of air pollution; encourages industries to comply with environmental laws; and addresses the fact that some communities are disproportionately affected by emissions due to their proximity to industrial sources of air pollution.
- f) Work with local media outlets to raise awareness of underlying causes and implications of Los Angeles County's air quality by disseminating air quality data

and advocating the use of U.S. EPA's Air Quality Index and Ozone Action Day alerts in their broadcasts, print or web-based media.

- g) Promote use of public transportation by improving the quality of the current public transportation system and further expanding the public transportation infrastructure, with an emphasis on building a clean, efficient bus and metro/rail system.
- h) Promote and provide incentives for ridesharing, vanpooling, use of public transportation, and telecommuting among County and City employees and encourage private employers to implement similar programs.
- i) Reduce the negative air quality impacts of large-scale demolition and temporary construction activities in the region by ensuring dust control measures are adequate during construction.³⁰
- j) Promote the inclusion of specific requirements for clean construction equipment in city and county construction contracts, and support city and county governments, private companies, and individuals in giving preference to contractors that use clean construction equipment for their projects.²⁸
- k) Implement least toxic pest control measures, modeled after LAUSD's integrated pest management policy, and promote the adoption of local government goals for reduction of pesticide use.
- l) Promote the use and availability of environmentally friendly equipment for gardening and recreation and eliminate the use of environmentally harmful ones (e.g. leaf blowers, lawnmowers, jet skis, all-terrain vehicles). Encourage regulatory agencies to require clean technologies for these uses.
- m) Encourage the adoption of policies that create smoke-free outdoor areas (e.g. parks, beaches, restaurant patios, bus stops, entryways, and service lines for movies, concerts etc) throughout Los Angeles County.

5) Address race/ethnic and socio-economic disparities

Although asthma affects people of all races/ethnicities and income levels in Los Angeles County, low-income and some non-white populations experience significantly higher rates of hospitalizations, emergency room visits, and activity limitations due to asthma. Many factors contribute to this disparate impact including lack of access to quality health care, substandard housing and living in close proximity to freeways and industrial polluters. A multi-pronged approach is necessary to decrease disparities, but of utmost importance is ensuring access to quality medical care, including care for low-income patients with asthma. The asthma community must work together to reduce asthma countywide, paying special attention to decreasing differences in asthma outcomes due to race, ethnicity, and socioeconomic status. Key actions include:

- a) Expand the safety net for provision of care to low-income, uninsured residents, for whom access to quality care and appropriate medications are barriers to seeking treatment.
- b) Enhance the cultural sensitivity and language accessibility of asthma management materials and programs and offer provider education to maximize the effectiveness of such resources.
- c) Increase the number of high quality healthcare providers working in low-income neighborhoods who promote asthma management according to national guidelines, and have access to asthma specialists, as needed.

- d) Increase the number of high quality community health workers in low-income communities who are linked to and coordinate with primary care providers.
- e) Provide educational programs on asthma for low-income patients with asthma, with a particular focus on accessing regular preventive care.³¹
- f) Develop and fund interventions that strive to reduce disparities and emphasize culturally competent, community driven, and linguistically appropriate approaches, including use of materials for low-literacy or illiterate audiences, such as audio and audiovisual materials, and increased use of graphics in printed materials
- g) Promote policies for hazardous industries that prohibit disproportionate siting of these industries in low-income communities.
- h) Decrease exposure to and increase awareness about hazardous occupational toxins that disproportionately affect low-income people.
- i) Conduct public awareness campaigns, especially in underserved communities, to: increase awareness that asthma can be controlled; educate about asthma triggers and symptoms; promote access to effective medications; and increase the number of people who access medical care and other resources for their asthma.

6) Strengthen research related to asthma

The role of research is crucial to develop effective asthma interventions and evaluate their impact. Further research is needed for the development of effective primary prevention strategies, to better understand the distribution of risk factors for asthma incidence and exacerbations in different sub-populations,¹¹ and to more fully examine the link between asthma and the environment. In particular, additional studies are critical to identify the factors contributing to the general increase in asthma prevalence among specific race/ethnic and socioeconomic groups, especially African-American children in Los Angeles County.³ Key action items include:

- a) Strengthen our understanding of asthma by improving surveillance by City, County and State health on asthma prevalence, case and cluster identification, and the management and treatment of asthma.
- b) Investigate potential causes as well as protective and risk factors for asthma, including indoor and outdoor environmental triggers, and exposure to detrimental social and physical risk factors, and disseminate findings to community organizations.¹¹
- c) Conduct research on race/ethnic and cultural differences in asthma morbidity and response to diagnosis and therapy.^{32 29} Improve data collection at the local community level to increase information about geographic, race/ethnic and socioeconomic disparities relating to asthma, and to improve our understanding of under diagnosis in many communities.
- d) Promote the use of practice-based research networks (PBRNs) among providers in LA County to develop more effective approaches to treat patients with asthma.
- e) Work with insurers, health plans, medical groups, independent practice associations, health care providers, pharmacists and patients to assess prescription refill patterns, health care utilization patterns (e.g. emergency department visits, urgent care visits, hospitalizations, etc.) and health plan asthma benefits.¹¹
- f) Collect data on school absenteeism due to asthma, including the financial cost to the schools, by conducting pilot projects at specific schools in Los Angeles County.

- g) Conduct pilot studies in specific schools in Los Angeles County to assess the feasibility, effectiveness and cost-effectiveness of school-based asthma case detection programs, including identifying a mechanism to transition families to preventive care.
- h) Promote data collection to better assess and improve clinical control and patient disease management processes and outcomes.
- i) Promote the evaluation of model programs in asthma care, such as home-based interventions using community health workers.

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