

Tailored Environmental Interventions

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Effective environmental interventions drive asthma program results. Strategies for program effectiveness include:

- Educating providers on environmental triggers
- Helping providers conduct assessments and education in clinical settings
- Making referrals for interventions easy
- Delivering interventions where patients need them

NATIONAL ASTHMA FORUM
Communities in Action for Asthma-Friendly Environments



Tailored Environmental Interventions

**Boston Public Health
Commission's Asthma Program
Margaret Reid, RN**

**Boston Medical Center
Megan Sandel, MD, MPH**

Healthy Homes Programs

What We Believe In

Our Philosophy: *Partner Widely to Create a Continuum of Care*

Why we are essential to the delivery of quality asthma care in our community:

- Health care systems reinforce importance of environmental management in asthma
- Community-based resources in place to reduce home environmental triggers
- Collaborate with large housing authorities on design and maintenance of affordable housing

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Healthy Homes Programs

- **Public Health Partnership - Boston Medical Center and Boston Public Health Commission**
- **Located:** Boston, Massachusetts
- **Program Established:** 1998
- **Serving:** Annually 100 home visits, over 150 code enforcement inspections, another 100 through grants
- **Key Partners:** Boston Urban Asthma Coalition, Committee for Boston Public Housing, Boston Housing Authority, and Inspectional Services Department

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Our Tailored Environmental Interventions

Partnering to Improve Asthma Care

- Created a city-wide environmental network
 - Engage non-traditional partners
- Educate and empower clinical staff
- Use information technology to manage city-wide environmental interventions
- Home assessment, education, and mitigation
- Preventive measures in public housing
- Involve housing code enforcement

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Our Tailored Environmental Interventions

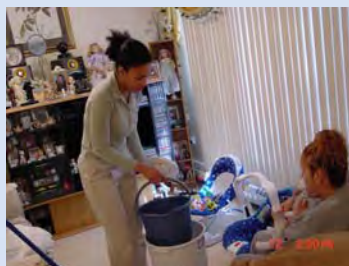
Breathe Easy in Action

- Pediatric patient from Cape Verde with well-controlled asthma has sudden exacerbations
- Ends up in the ER
- Rapid response protocol leads to in-home, culturally-competent education
- Code enforcement engaged, landlord cited
- Child improves after environment changes, not with increase in medications

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Healthy Home Visits



- 1.) In-home asthma education
- 2.) Refer for home inspection with Breathe Easy at Home Program
- 3.) Low-cost supplies to assist with maintaining a pest-free environment:
 - Cleaning supplies
 - Trash can with lid
 - 3 plastic food containers

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Our Impact

- **Key indicators for measuring success:**
 - Leveling of ER and hospitalizations from 2007 to 2008, increased preventive care, asthma education, and environmental visits.
 - In 2005, for all ages, the asthma hospitalization rate was 43.9% lower than in 1994.*

*Health of Boston, 2005. Boston Public Health Commission.

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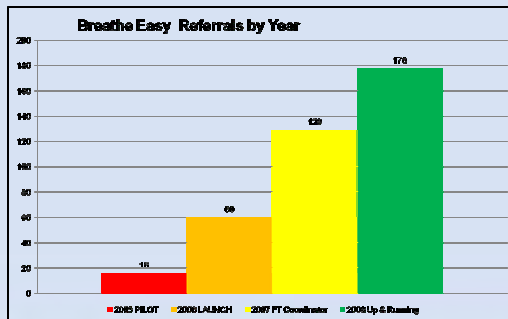
Our Impact

- The results we're most proud of:
 - Increase in referrals for Breathe Easy at Home program to 178 referral last year
 - 35 hospitals and health centers now engaged
 - Reduction in pest complaints in public housing

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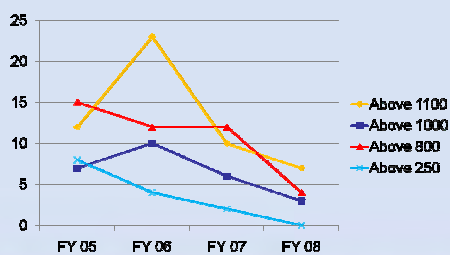
Breathe Easy Referral Increasing



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Housing Code Violations for Pest Infestation in 4 Developments



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Sharing Our Value – Sustaining Our Success

- **We demonstrate our value by:**
 - Increased use of environmental services
- **Our environmental intervention program serves up to 300 each year**
- **We support that growth through:**
 - Partnership with health care providers
 - Streamlined referral system
 - Funding from local government
 - Involvement of advocacy community

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Children's Hospital of
Philadelphia's Community Asthma
Prevention Program

Dr. Tyra Bryant-Stephens

Community Asthma Prevention Program *What We Believe In*

Our Philosophy: *Bridging the Gaps Facing Our
Patient Population*

**Why we are essential to the delivery of quality
asthma care in our community:**

- Promotion of improved self-management
through education of caregivers and children
with asthma
- Improving communication between
patients/caregivers and physicians

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Community Asthma Prevention Program

Who We Are

- **Hospital devoted to the care of children**
- **Located:** Philadelphia, Pennsylvania
- **Program Established:** 1997
- **Large minority population:** 1.4 million in city with 20-25% prevalence of asthma in inner-city community
- **Serving:** 3,000 families
- **Key Partners:** School District of the City of Philadelphia, City Department of Health, ALA, Congreso de los Latinos, Health Federation

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Our Tailored Environmental Interventions

Bridging The Gap

- **Saw a Gap** – good clinical care but high ER visits
- **Needed to address how caregivers manage asthma in the community and at home**
 - Barriers facing our population
- **Use of community health workers**
 - In-home education and environmental mitigation
 - Symptom diaries
 - Patient monitoring and follow-up

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How We Make It Work

- In-home education, assessment and mitigation leads to improved outcomes
- Families engaged through home interventions become champions and leaders of the program
- Keys to program success include:
 - Community health workers' relationship with caregivers and community expertise
 - Ability to effectively teach families self-management skills

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Our Impact

- **Key indicators for measuring success:**

- Reduced asthma morbidity
- Improved self-management skills and reduced exposure to asthma triggers

- **The results we're most proud of:**

- Decrease in asthma-related hospitalizations, ER visits, sick visits, and asthma symptoms
- Decrease in inpatient stays and ER visits compared to control group
- 13% increase in asthma knowledge from education course

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Sharing Our Value – Sustaining Our Success

- **We demonstrate our value by:**

- Sharing our results with our partners, providers, patients and staff so they see our impact
- Communicating patient health improvements so new providers want to pay us to deliver environmental services to their patients
- Publishing our outcomes
- Expansion of our asthma services to the entire city

- **We support that growth by:**

- Partnerships with city-wide providers
- Streamlined referral system

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