

EPA Tailored Environmental Interventions

Tailored Environmental Interventions

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

EPA 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

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

Our Impact

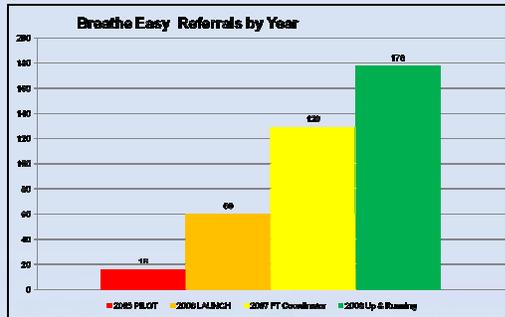
- **Key indicators for measuring success:**
 - Leveling of ER and hospitalizations from 2007 to 2008, increased preventive care, asthma education, and environmental visits.
 - In 2005, for all ages, the asthma hospitalization rate was 43.9% lower than in 1994.*

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

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

Breathe Easy Referral Increasing



Housing Code Violations for Pest Infestation in 4 Developments



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



Tailored Environmental Interventions

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

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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Communities in Action for Asthma-Friendly Environments

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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Our Tailored Environmental Interventions

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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Communities in Action for Asthma-Friendly Environments

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

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
