




Boston Public Health Commission
Asthma Prevention and Control Program
Reducing environmental triggers to asthma in the home

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Communities in Action for Asthma Friendly Environments
 National Asthma Forum, May 31, 2007

Scope of Program

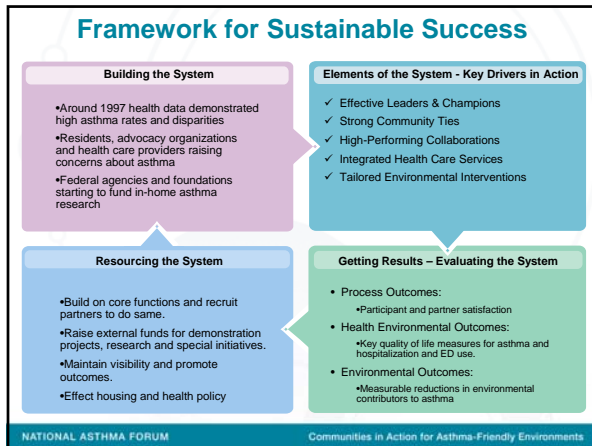
- **Population Served**
 - Massachusetts among states with highest asthma rates
 - Persistent racial and ethnic health disparities in hospitalization and ED
 - Mass survey of schools, 5 Boston schools 35% of students diagnosed with asthma
 - Some Boston neighborhoods with 5 times the hospitalization rates of other s
 - Asthma diagnosis among Boston public housing residents 21.9% compared to 10% affordable or market rate
- **Program established in 1998, part of the Boston health department**
 - BPHC program directly serves about 150 Boston residents with asthma/year
 - Collaborates with community groups to serve more
- **Asthma Program Staff**
 - Asthma Program Director
 - Senior Manager for Asthma/Healthy Homes
 - Health Educator Asthma/Diabetes
 - Senior Asthma Inspector
 - Part-time Breathe Easy at Home Coordinator
- **About 35% of program budget is internal, the remaining external fundraising**
 - Have raised external funds from HUD, EPA and CDC and WK Kellogg Foundation

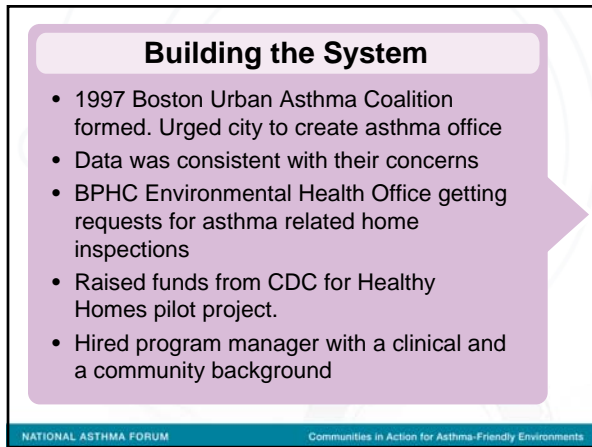
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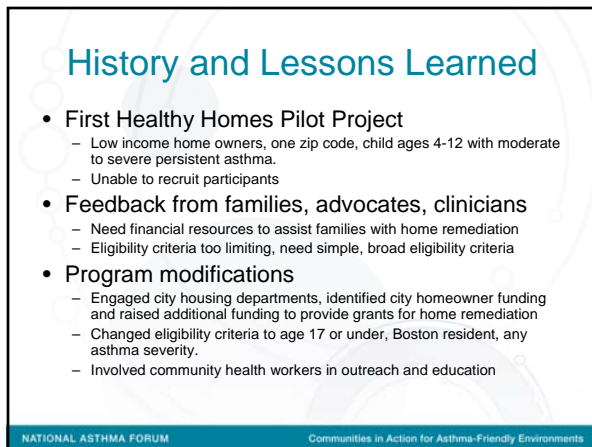
Program at a Glance – The Key Drivers in Action

- ✓ **Effective Leaders & Champions**
 - Health and housing advocacy organizations have been critical to program development
 - Physician champions promote program to peers and raise program profile
- ✓ **High-Performing Collaborations**
 - Working with city housing departments on systems change
 - Provide direct service, support community-based services and address policy change in health and housing
- ✓ **Integrated Health Care Services**
 - Referrals from hospitals, health centers and schools
 - Provide in-home inspection, education and low-cost supplies, refer to other resources as needed
 - Reinforce messages through phone calls, follow-up visits and written report
 - Provide copy of written report to health care provider
- ✓ **Tailored Environmental Interventions**
 - Inspection, interview and air quality monitoring guide content of education
 - Past environmental sampling and allergy testing demonstrated importance of cockroach and mouse infestation

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Program Evaluation

- **Process measures:**
 - Participant recruitment, retention, satisfaction and partner satisfaction
 - Focus groups, interviews, surveys
- **Health and Environmental Outcomes:**
 - Key quality of life measures for asthma and hospitalization and ED use
 - Baseline and follow-up in-home interview, bi-monthly telephone interview
 - Baseline and follow-up home inspection, with Air Quality monitoring. Some environmental sampling.

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Safe Pest Control and Asthma

- Boston Healthy Homes initiatives document high levels of cockroach and mouse infestation in multifamily and public housing
 - Residents, tenant organizations and housing management identify as high priority
 - Residents resort to extreme measures including use of restricted and illegal pesticides
 - Effective strategies to reduce pest infestation exist
 - Reduction in pests correlates with improvement in asthma quality of life measures.

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Health and Environmental Outcomes

- Statistically significant improvement in quality of life measures including:
 - Symptom days, medication use, lost sleep from asthma
 - Greater improvements with high intensity interventions, but not statistically significant.
 - Participant report of asthma severity consistent with their asthma quality of life measures
- Statistically significant improvement in pest infestation levels
 - Resident reports consistent with dust sampling results

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Resourcing the System

- Build on core functions of inspection, home visiting and health education.
- Involve city departments responsible for housing building, maintenance and code enforcement.
- **Resource Plan**
 - Maintain a program of in-home education and low cost supplies
 - Raise external funds to support special initiatives with higher cost interventions
- **Policy efforts to ensure institutional change (ex: housing code enforcement, health care reimbursements)**

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Breathe Easy at Home

- Web based referral system for housing enforcement inspections related to asthma
 - Clinicians request inspection and receive updates on status of inspection and enforcement, via the web
 - Housing code addresses rodent and cockroach infestation, mold and moisture and other housing conditions related to asthma
 - Reinforces importance of environmental control with clinicians and provides an easy to use tool.
- Uses existing laws, regulations and staff of city department

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Epiphanies – Making it Last

Building the System

- Monitor data
- Start with pilot program to make errors and build relationships
- Hire staff with appropriate skills and experience

Elements of the System - Key Drivers in Action

- Work with advocacy organizations and find health care champions
- Recruit partners based on core functions, involve in program development

Getting Results - Evaluating the System

- Include evaluation plan and evaluation team from day one
- Partners involved in defining evaluation measures and collecting data

Financing the System

- Funders are interested in supporting initiatives with strong community involvement
- Address policy for sustainable change
- Maintain internal and external visibility, stay flexible and cutting edge

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