

# Partnership for Successful and Safe Pest Control: A Strategy to Control Environmental Triggers in Low-Income Households with Asthma in Brooklyn, Harlem and The Bronx

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## ABSTRACT

The NYC Department of Health and Mental Hygiene (DOHMH) Asthma Initiative funded 401 indoor Integrated Pest Management (IPM) intervention programs to control asthma triggers (cockroaches and mouse allergens) and to reduce the use of dangerous pesticides in households with asthma in three low-income neighborhoods in New York City. The implementation of the program involved a partnership of pest control agencies, not for profit community based organizations, health organizations and building management companies.

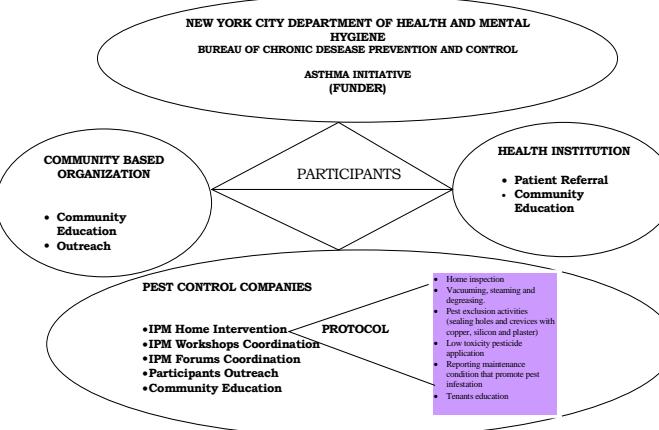
A post- IPM intervention phone survey reached a total of 285 of the 401 participants households. A total of 231 people reported a reduction of cockroaches after the intervention and 172 people reported a reduction of mice after intervention. The post-IPM phone survey also showed that 251 participants were very satisfied with the intervention.



## Household Pest Information

NYC Community Health Survey 2003

- 30% percent of Households in NYC reported having cockroaches in their homes
- 25% percent reported seeing mice or rats in their homes or residential buildings
- Households in disrepair are nearly 2 times more likely to have a person with asthma
- People with cockroaches in their homes are 1.5 times more likely to have asthma
- Households with rodents are 2 times more likely to have a person with asthma



## Goals

- To reduce exposure to environmental triggers (cockroaches and mouse allergens) in homes of people with asthma.
- To promote Integrated Pest Management Services among residents with asthma, landlords, health organizations, pest control companies and the community in general.
- To enhance community partnership for the implementation of safer pest control practices.

Table#1

Cockroaches	Frequency	Percent
Gone Down	231	88.2%
Gone Up	13	5.0%
Stay the Same	18	6.9%
Total	262	100%
Mice	Frequency	Percent
Gone Down	172	79.3%
Gone Up	14	6.4%
Stay The Same	31	14.3%
Total	217	100%

## Discussion

### Changes to the Agencies Involved:

- The New York City Department of Health and Mental Hygiene (DOHMH) Asthma Initiative was able to demonstrate to the community and pest control companies how to safely and effectively control pests shifting from direct service to capacity building.
- Community - based organizations helped to move forward changes and programs to improve community environmental health.
- This program also enhanced collaboration between the Asthma Initiative and several DOHMH programs.
- Pest control companies gained experience in organizing educational sessions and forums, partnering with other community-based organizations and with city agencies, and developed expertise in providing IPM service.
- Health Organizations were able to coordinate the service to their patients and follow up with them after the service was conducted.

### Community Level Component:

- Residents of participating communities received detailed demonstration of how to control mice and cockroaches safely and effectively.
- Doctors and case managers encouraged their patients to participate in the program. This could have positively influenced people's willingness to allow a pesticide applicator in their homes (Previous research project results showed that a high number of people don't allow an exterminator in their apartments).
- The IPM Program allowed communities to receive a more comprehensive response to their housing, pests and asthma problems.

### Challenges:

- Uncertain ability of one of the pest control companies to implement a program that includes tenants' education, outreach and maintenance activities as part of their pest control method.
- Limited interest among pest control companies to submit proposals for grants to implement the program.
- Partnering with organizations with limited knowledge of community health education and environmental health education.
- Difficulty recruiting building management companies to adapt Integrated Pest Management as part of their regular pest control service offered to their tenants.