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*Northeast Regional IPM Competitive Grants Program (RIPM)*

**Design and Delivery of IPM Outreach Programs to Low-Income Urban Neighborhoods**

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*States involved:*

Pennsylvania and New Jersey

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2006

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Two years (extended until 6/30/09)

*Funding Amount:*

\$175,000

**Program Summary:**

We are investigating the attitudes and behaviors of low-income urban residents towards pest and pest control, and we will provide advice and recommendations aimed at reducing pesticide use through educational outreach. This joint effort of the Pennsylvania IPM Program and the New Jersey IPM Program seeks to assist residents at risk of developing asthma due to pests and pesticide triggers adopt safer, more effective pest management in Philadelphia, PA, and Camden, NJ. This mid-term report updates the project through the end June 2008.

IPM, or integrated pest management, is a safe, effective, and scientific approach to managing pests. IPM uses knowledge of pests' habits and needs to help residents implement pest prevention tactics as a first line of defense. Both cockroaches and mice have been shown to trigger asthma attacks. Asthma rates in Philadelphia are about twice the national average, and significantly higher in low-income areas. In Philadelphia over 20% of school age children are diagnosed with asthma. Controlling pests is an essential part of asthma control. Pest control measures that pose the least-toxic, least risk of exposure to residents are preferred. Because pesticides are poisonous, they are chosen only as a temporary tool. Information about proper use, storage and disposal of pesticide products is also critical to avoid personal and environmental contamination.

The project first identifies residents' attitudes and current activities concerning pests and pesticide use in Philadelphia and Camden, NJ. Over the past 6 years, PA IPM has been working in Philadelphia through the Philadelphia School and Community IPM Partnership (PSCIP). PA IPM will also survey local stores to find out the types of pesticides are being sold to local residents. Vendors' knowledge of and interest in receiving pest product and pest management education will be assessed.

Each resident that participates in the project receives an IPM resource kit containing information about using IPM to control pests, non-toxic traps with instructions, non-toxic cleaning supplies, and sealable containers to store food items. In addition, new outreach materials are being developed to meet the needs of the target communities. The project staff work with urban health partners to develop brochures, radio spots, presentations and other forms of communications. In addition, Spanish language materials are being developed. PA IPM estimates that at least 500 residents and six health care organizations and their staff will be educated on pests, pesticide use and IPM.

This project seeks to better understand the knowledge, attitudes, beliefs and skills (KABS) of inner city residents, and to provide one-on-one education on effective interventions that low-income urban residents can use to address pest control problems in their own homes. The overarching goal is to provide individuals the tools for better decision-making and to minimize the health impact of both pests and pest control methods. Progress and effectiveness of educational intervention will be measured in part by comparison of results of the pre and post intervention interviews. The creation of new and effective, multi-lingual outreach materials is another key deliverable. Enlisting of new, non-traditional IPM partners is also a sign of progress.

## Objectives

1. *Research city residents understanding and behavior pertaining to pests and pesticides using standard demographic methods.*  
Current program: IRB renewal received. Interviews ongoing.
2. *Develop new and improved outreach materials targeted to the expressed needs of city clientele.*  
Outreach and education materials for survey developed; survey results will inform production of new IPM education materials for distribution to the urban population.
3. *Deliver information about pests, pesticides and IPM approaches.*  
Ongoing; participation in community health fairs, neighborhood- and city-wide events, health education coalitions, public health seminars, etc. continue to advance knowledge of IPM in both the resident and health-delivery spheres.

## Approach

Community events, including health fairs, neighborhood- and city-wide events, health education coalitions, and public health seminars, are used as both educational opportunities and as recruiting events for resident participation in the primary survey. Relationships have been established with community and tenants groups, and health and social service providers to refer possible participants. Participation is qualified by residence in a low-income area and presence of children under the age of six in the household.

Participants are visited three times:

- An initial survey, focusing on existing pest problems, attitudes towards pests and control measures used. As of 6/30/08, 24 interviews have been completed in Philadelphia.
- An educational session, where IPM principles and practices are introduced, pesticide use hazards discussed, and an “IPM kit” of materials presented and demonstrated. When resident interest allows, demonstration of monitoring devices will be coordinated with a return visit to make actual counts of pest species presence and relative abundance pre and post educational intervention. As of 6/30/08, 15 trainings have been completed in Philadelphia.
- A follow-up visit, where the survey is again administered, with the focus on changed attitudes and behavior, and understanding and application of IPM practices. As of 6/30/08, 11 follow-up interviews have been completed in Philadelphia.

This fall-off in completion is indicative of a problem working with the target population. The residents are frequently unmotivated and reluctant to participate with extensive studies such as this project. After the product kit is received in session two, it is difficult to schedule the third session, or in many cases, get any response from the resident. In a few cases they have consented to the third visit, but been clear that it is viewed as an imposition; one respondent was frankly hostile, in spite of admitting that the intervention had, in fact, helped her pest problems. She just did not want any more contact with us.

Camden began their interviewing after Philadelphia. Two enumerators, Masters of Public Health candidates from the University of Medicine & Dentistry of New Jersey (UMDNJ), were trained in two sessions, totaling eight hours. IRB approval from both Rutgers and UMDNJ was received. To avoid some of the issues that the Philadelphia survey has encountered, Camden has adopted a

different model, using the same instruments and materials. They are working directly with community agencies to recruit participants, and conducting the sessions at the agency offices.

Both sessions will be held at the designated community center. The first session is an hour to an hour and a half. During the first session, the participants are interviewed about their pest problems, using the survey instrument. After the survey, the short educational session on IPM basics and the kit containing pest control products and household cleaning materials is given to each participant. The interviewers demonstrate how to safely use the products. The participants are then asked to come back to the same community center in four to six weeks to complete a post-test survey, which should take 30-45 minutes. As of 6/30/08, 32 first sessions have been collected in Camden; no second sessions have yet occurred.

A second survey of pesticide types and formulations available to residents in local stores is being developed. This will utilize both observation by team members and interviews of store managers and/or sales personnel. The objective is to help determine what pesticide active ingredients and formulations are available and used in low-income urban areas. Previous studies suggest that resident's pest control practices are influenced by their neighbor's practices and advertising – particularly television – and by simple availability, since transportation is a limiting factor.

The second major approach of the project is the development of targeted outreach and educational materials. Survey materials, including point-to-identify materials for both pests and pest control methods have been produced. Research on appropriate methods and media is ongoing.

### **Progress**

Project staff (Dion Lerman) was hired in January 2007. Rhonda Griffin assists part-time with scheduling and conducting interviews. Penn State University Office for Research Protections IRB approval for the Resident-survey and materials was obtained. Education materials were produced, and IPM Kits assembled (see list of contents, Appendix A). Many of the materials were donated by manufacturers: Woodstream/Victor provided snap- and glue-traps; Sun & Earth green-cleaning products.

Outreach and recruitment is ongoing. Resident interviews have been conducted, as listed above, primarily in a North Philadelphia public housing project. New focus areas in South and West Philadelphia and Germantown are being developed. One of our partner agencies referred a cluster of Spanish-speaking residents, and a native-Spanish speaker (Sueane Cortez) has been hired part-time to conduct interviews with them. In addition, Community Health Students from Villanova University School of Nursing will be assisting with resident interviews in July. All resident survey collection work is scheduled to be completed by the end of October 2008. Data entry and preliminary analysis will begin in September 2008.

### **Conclusion**

The Philadelphia side of project is moving ahead again, after delays. New Jersey is moving forward. Data analysis will begin soon. We look forward to successful completion.