

# Promoting IPM in Affordable Housing through Strategic Partnerships:

A Case Study from the Boston Housing Authority

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## The Boston Housing Authority



- Largest housing authority in New England
- Largest property owner in Boston
- 10% of Boston residents live in BHA subsidized housing
- Nearly 12,000 units of public housing; more than 25,000 residents
- The community is very diverse and very poor
- 80% of the residents earn less than \$25,000 annually
- More than 50% of the household identify a language other than English as their primary language

Developments are large- a 250 unit complex is smallish to us. 2 with more than 1,000 each.

Developments are old. The oldest BHA development was built in the late 1930's. Others built in the 40's. Even the elderly hi-rises, which are newer were mostly constructed in the 1960s and 70s.

Limited capital improvement dollars are available and most of the large family properties have never been comprehensively rehabilitated.

## Integrated Pest Management Principles

- Identify pest problems through monitoring and information.
- Block entry.
- Eliminate access to food, water and shelter.
- Use low-toxicity, low-risk pesticides only as needed.
- Tenant education/behavior change.

IPM is a commonsense approach that identifies the root of the pest problem and then prescribes the most appropriate treatment. Unlike traditional pest management, which focuses on killing the pests, IPM addresses the cause of infestation, and focuses on preventing pest problems rather than reacting to them.

Identify....., Using well placed sticky traps and monitoring the numbers of pests found over time will give you a clear idea of the extent of your pest problem and if your efforts are succeeding. Always identify the pest or pests you have before any treatment is prescribed.

Block.....Closing up cracks, crevices and holes will eliminate movement of pests from room to room and apartment to apartment.

Remove.....Pests are just like us. They need food, water and a place to live to be successful.

Use low.....Treatment is the last resort in an effective IPM program.  
Pesticides are never used where there is no visible infestation.

Tenant.....Education is a key component for residents and staff.

To do otherwise is not a strategy; but importantly the successful fulfillment of all these principles requires the cooperation of everyone at the site.

## Evolution of Pest Control at BHA

- 1980's                      • Bug Crew
- 1993                      • Switch to gels and baits
- 1995                      • Outside contractors  
"Flushouts"
- 2001                      • Community Meeting
- 2002-05                      • Pest Wars

1980: BHA had a bug crew that was comprised of employees that were licensed pesticide applicators. They performed all of the extermination procedures throughout the portfolio. We used sprays, fogging bombs, dusting machines and rodenticides. These chemicals were generally strong smelling and would leave a residue and were often toxic to humans and pets.

Around 1993: we switched to the low-toxicity, low-risk pesticides in the form of baits and gels. Our residents were skeptical because they didn't have any odor which they were used to with the old pesticides and also the new pesticides, also attracted the pests so it appeared there were more or, as many tenants said, we were making them multiply. It was definitely a long learning curve for tenants and management.

In 1995 we disbanded the bug crew and assigned the pesticide applicators to individual developments. We started using contractors for our pest control but still used the staff.

In 2001, our administrator conducted a listening tour and was told that beside crime, pests were the biggest problem in public housing and caused the most stress for our residents. She knew then that we had to find a better way so in 2002, we started the campaign we called "Pest Wars". That is when IPM was introduced to the BHA and we started to adopt some of its principals.

## IPM in Boston Housing Authority

### Flushout

- Awarded contract based on price only.

### **IPM**

- Award contract based on meeting the specifications as well as price
- Meeting minimum requirements
- Past performance
- Quality of the IPM plan proposed
- Commitment to perform as a partner at a high level
- The price quotation provided

The next couple of slides will make a comparison of some of the key components of a flushout which is the way we used to address pest problems and how we do it now with an IPM program.

Flushouts periodic sweep through the development- using pesticides, gels when ever they could get into a unit and whereever they could put it depending on the level of preparation.

Minimum requirements include showing evidence that the contractor has had at least 5 years experience in the pest control field and that they can provide IPM services. The cost is the last thing we compare.

## IPM in Boston Housing Authority

### Flushout

- Treat all apartments
- No preparation required with the use of gels
- Treat 1000 units in 4 day flushout
- Notify residents but did not access all apartments.

### IPM

- Only treat apartments that have visible signs of infestation.
- Require preparation for initial inspection
- Inspect 20-25 units/day: 8 weeks to complete inspection
- Monitor infestation levels using monitoring traps
- Notify residents and commit to entering all apartments.

Preparation includes removal of all belongings from kitchen cabinets, closets, bureau drawers, etc. This needs to be done so the contractor can visually see if there is an infestation and the level of that infestation (clutter hides a lot). Also, the tenants who have hoarding or clutter issues will tend to clean up and get rid of some of their belongings rather than pack them all away.

Monitoring infestation levels during the contract period will show where the pests are in the apartment and when the levels have decreased to the point that pesticides are no longer needed.

## IPM in Boston Housing Authority

### Flushout

- None or very little tenant education

### IPM

- Extensive tenant education in many forms:
  - Initial meeting describes procedure and preparation instructions
  - Hardcopy instructions and tip sheets are distributed to residents
  - The contractor is required to provide education to the tenants about conditions or behaviors that are contributing to the infestation.
  - Tenant coordinators are trained to provide education, too.

It is suggested that if your population is diverse such as ours that you get your printed education material translated into several of the most common languages spoken. We also have a footnote that we put on all communication that says in seven languages – “This is an important notice. Please have it translated.”

## Focus Resources on Problem Units

- “Focus units” have visible infestation, conditions favorable to pest life, or were not prepared for inspection.
- Add apartments to list of focus units based on:
  - Residents’ complaints
  - Employee reports
  - Regulatory agency complaints
- Remove apartments from the list as conditions improve

*The emphasis is on correcting conditions that foster infestation; not just treatment of pests.*

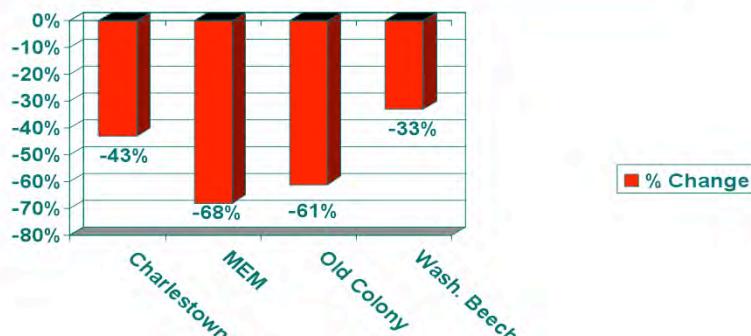
After the completion of the inspection we develop a list of problem apartments we call “focus units” where we focus all of our resources.

This list is comprised of all apartments where there is visible infestation, conditions favorable to pest life or apartments not prepared.

During the duration of the contract, apartments are added when complaints are made by residents, through employee reports (management or maintenance), and regulatory agency complaints.

Also, apartments are removed from the list as conditions improve over time.

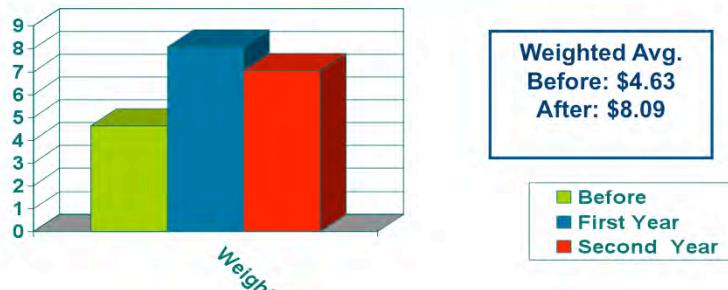
## Percent Change in Total Pest Work Orders



This slide shows the percent change in Total Pest Work Orders at the sites from the 12 months before IPM to the 12 months after we implemented IPM.

There was a significant decrease at all the sites.

## Unit Monthly Average Total Costs for Pest Management



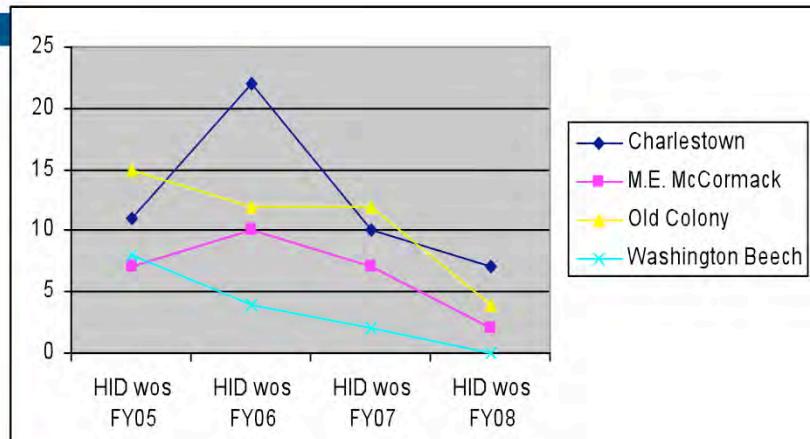
Here is another way of looking at the cost; by unit by month. The key piece here when we are speaking with other housing authorities and property managers is the weighted average where we roll up all the costs to come up with an average cost for implementing IPM. Property managers can use these numbers to compute what it would cost them to implement IPM in their properties.

We went from spending \$3.73 a unit/month on pest control including staff salary and fringe, materials and contracts to spending \$8.68 - more than doubling our costs but also achieving real results for our investment. We've always had some pest control costs and now we've added to it but we are making progress against this problem.

I would add one note of caution about the before figures. The money that was spent before IPM did not yield a successful result. Money was spent sometimes for a sub par product

Tell Lenox story

Decline in Housing Inspection Dept. complaints due to infestation



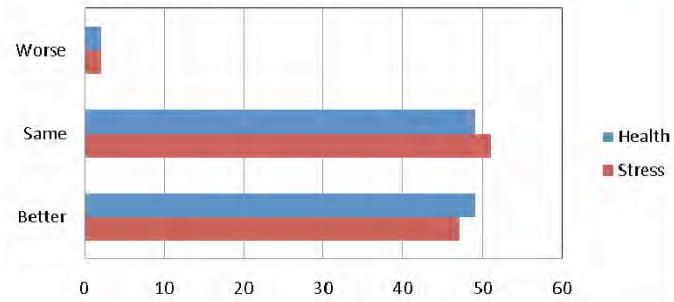
We have been looking at the first four Kellogg Grant sites and their statistics regarding pest work orders and cost but we haven't looked at other quantitative measures until recently. This slide shows the last four fiscal years of HID's due to pest infestation. You can see that there has been a measurable decrease in complaints due to infestation. I.S.D. inspectors are noticing a decrease in complaints and also, at our last IPM Credentialing meeting it was mentioned that court officers are noticing a big decline in court cases with the B.H.A. as well.

**Qualitative Results of Surveyed Residents (130 families):**

97% said health now is the same or better

95% said stress levels are the same or better

**Levels of respondents' Health and Stress "now" in comparison to before the program (n=51; in %)**



### Qualitative Results of Surveyed Residents (130 families):

At the start of IPM, 1/3 of residents reported heavy infestation; now only 14% do so.

At the start of IPM, 35% of residents used pesticides themselves; now reduced to 5%.

Qualitative Results  
(surveyed 25 managers):

- 21 managers stated stress is lower
- 21 managers stated resident pest complaints have been reduced
- 20 have noticed a savings in their time since the inception of IPM
- 19 reported an increased job satisfaction

## **Partnerships: Who Needs to be at the Table?**

- Health Commission, Governmental and Community Partners, Landlord, Universities, and advocacy groups



## Institutional Level Partnerships

- Governmental and Regulatory Agencies
  - Boston Public Health Commission*
  - Boston Inspectional Services Department*
- Academic Institutions
  - Boston University School of Public Health*
- Advocacy Organizations
  - Committee for Boston Public Housing*
  - Asthma Regional Council of New England*
- Landlord
  - Boston Housing Authority*

## Key Elements to Institutional Partnerships

- Identify common goals
  - Healthier housing
- Identify reasons for commitment
  - Mission
  - Grant opportunities
  - Political
  - Problem
- Disregard “turf” concerns
- “It’s nothing personal” – let go of defensiveness
- Make everyone’s job easier
- **TIME**
  - To work on partnership
  - To let partnership grow

Defensiveness- for those of you who work for or with large bureaucracies.

Don't want to admit to a problem- but that's silly Everyone already knows you have a problem.

## Institutional Partnership Activities

- Regular interactions
- Collaborations
- Information sharing
- Ongoing evaluation
- Quarterly partner meetings
- Organizing a conference
- Pesticide buy-back
- Training
- Meetings
- Publications
- Reporting
- Acknowledge difficulties

## Partnerships on the Ground

- Property management staff
- Residents
- Resident Educators
- IPM Contractor
- Resident Advocates

Remember back when I was first describing IPM I emphasized the importance of everyone's buy-in. Here are the parties.

## **Key Elements to Site Partnership Success**

- Institutional Commitment
- Local Buy-In
- Staff and Resident Education
- Mutual Respect and Accountability
- Articulate common goal
- All partners derive a benefit

Institutional partnerships are the floor to these partnerships.

## **Site Partnership Activities**

- Monthly implementation meetings at grant sites
- Periodic meetings between contractor, management and resident educators
- Community meetings at initiation of program
- On-going training for management staff, educators and residents
- Evaluation and feedback

## Sustainability of IPM

- Standard Operating Procedures Manual Changes
- IPM Contract Specification
- Tracking Mechanism for Focus Units: Housekeeping Log
- Social Service Partnerships
- Capital Construction Best Practices Guide
- Continual Evaluation of IPM Program
- IPM Credentialing of Pest Control Operators
- IPM Education and Training

Now heading into the final months of the Kellogg grant we have spent considerable time preparing to sustain the program beyond the grant term. We have made changes to our SOP including updating our LUI and turnover inspection practices; revised our contract specification; developed a housekeeping log that helps managers keep track of apartments that are frequent-fliers and are receiving a lot of services. This documentation may be useful if the situation ends up in a court eviction proceeding.

We've been developing some trainings for managers and tenant coordinators about IPM that we can offer periodically. We've added a new partnership in the third year of the grant with the BU School of Social Work. We are hosting 2 interns who are working 2 days a week at Cathedral and Torre Unidad with focus families who need additional assistance beyond information or education. The interns will case manage the families to help them access additional services.

We'll be developing a capital construction best practices guide that will discuss product information and construction techniques that support the IPM program.

Finally, BHA has joined with several partners to enhance existing IPM classroom training programs with in-the-field practical application to develop a deeper pool of IPM pest control companies.

## Challenges still facing the BHA

- Bedbugs
- Turnover
- Housing Homeless
- Contract Administration/Quality Assurance
- Costs
- Finding Qualified Vendors

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