An IPM program in privately owned multi-unit housing

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November 2011
Overview of Project

**Goal:** Address the overuse and misuse of pesticides to control pest infestations in substandard housing by increasing access to safer and more effective pest management methods via adoption of IPM practices by tenants, maintenance personnel and apartment managers/owners

**Overview of Objectives**

- Work with 2-3 privately owned multi-unit housing owners/managers in Los Angeles

- Conduct an IPM intervention study in the 2-3 buildings

- Train apartment owners, tenants, maintenance personnel, organizers and promotoras on IPM

- Develop and implement a multilingual, multimedia public health information strategy for residents and apartment owners based on the implementation of the IPM intervention study

- Develop communication/education materials for the public
Project Demographics

**Project Duration**
September 2009-December 2011

**Project Partners**
- Project Coordinator: PSR-LA
- Outreach Technical Advisor: HHC
- Building Relationship: Coalition for Economic Survival, Esperanza Community Housing Corporation, Inner City Law Center and Korean Immigrant Workers Alliance

**Project Demographics/Location**
- South Los Angeles
  - Orchard Building- 1922
  - Hill Building-1916
- Highland Park-1989
- Mid-Wilshire-1929
Process of Project

• Full partnership between PSR-LA and the CBO’s

• Project process
  1. Training to CBO’s- PSR-LA
  2. Identification of Buildings- CBO’s
  3. Education to tenants, managers, building owners, CBO’s- PSR-LA
  4. Implementation of IPM project- PSR-LA, CBO’s, HHC and tenants
  5. Data analysis- PSR-LA
  6. Policy Development and Communications-PSR-LA
Pesticide Survey & Results

Assessing Pesticide-use
Pesticide Use Survey: Demographics

32 tenant surveys completed

- 7 from South Los Angeles (missing 3908 ½), April 2010, April 2011
  - Primarily monolingual Spanish speaking residents
  - All of the families had children under 18 years of age

- 7 from Highland Park, April 2011
  - Primarily monolingual Spanish speaking residents
  - Families with children under 18 years of age in 5 residences

- 18 from Mid-Wilshire, October 2010
  - Multi-ethnic building; Spanish, English, other languages
  - Families with children under 18 years of age in 3 residences
Types of Pests

As of August 12 2011

- Cockroaches: 31
- Bedbugs: 11
- Ants: 2
- Rats: 6
- Mice: 6
- Termites: 0
- Fleas: 3
- Spiders: 4
- Pantry Moths: 0
- Other: 2
Methods Used to Eradicate Pests

- **Fly Swatter**: 22%
- **Boric Acid**: 3%
- **Sealing Cracks/Holes**: 10%
- **Soap & Water**: 11%
- **Gels**: 12%
- **Traps (Snap/Glue)**: 8%
- **Baits (Roach motels)**: 10%
- **Fogger/Bombs**: 11%
- **Aersols/Sprays**: 9%
- **Chinese Chalk/Tres Pasitos**: 3%
- **Other**: 0%
Number of Units That Used 1 or Multiple Bombs/Foggers At One Time

- 1 Fogger: 4
- 2 Foggers: 1
- 3 Foggers: 7
- 4 Foggers: 1
- 5 Foggerers: 2
- 6 Foggers: 1
Safety Measures Taken When Using Pesticides

- Leave The Home: 12
- Do Not Leave The Home: 11
- Opens Windows/Doors: 3
- Does Not Open Windows/Doors: 16
- Wears Glove/Mask: 12
- Does Not Wear Glove/Mask: 3
- Sometimes Wears Gloves/Mask: 24
- Uses another precaution: 1
- Sometimes Leaves the Home: 3
Locations Where Pesticides Were Purchased

- Home Depot: 35%
- 99cent Store: 14%
- Drug Store: 16%
- Grocery Store: 9%
- Retail Store: 3%
- Manager Supplied: 23%

PSR-LA Healthy Homes Alliance Project 2011
Landlord/Manager Fumigation Questions

Has the Landlord/Manager Sprayed or Fumigated for Pests?

- Yes: 50%
- No: 50%

Does the landlord/manager inform you before spraying/applying pesticides?

- Yes: 14
- No: 2
- Not sure: 8

Where does the Manager Spray or Fumigate for Pests?

<table>
<thead>
<tr>
<th>Locations</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit</td>
<td>10</td>
</tr>
<tr>
<td>Common Areas</td>
<td>4</td>
</tr>
<tr>
<td>Outside</td>
<td>1</td>
</tr>
<tr>
<td>Other Units</td>
<td>2</td>
</tr>
</tbody>
</table>

How often does the building get sprayed or fumigated for pests?

<table>
<thead>
<tr>
<th>Fumigation Method</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>No fumigation</td>
<td>6</td>
</tr>
<tr>
<td>Once A Year</td>
<td>4</td>
</tr>
<tr>
<td>2x Times A Year</td>
<td>2</td>
</tr>
<tr>
<td>4x Times A Year</td>
<td>2</td>
</tr>
<tr>
<td>Monthly</td>
<td>3</td>
</tr>
<tr>
<td>Doesn't Know</td>
<td>8</td>
</tr>
<tr>
<td>Once In A While</td>
<td>1</td>
</tr>
<tr>
<td>Once In 3 Years</td>
<td>1</td>
</tr>
<tr>
<td>Only when requested</td>
<td>1</td>
</tr>
<tr>
<td>Every 2 Years</td>
<td>1</td>
</tr>
</tbody>
</table>
After using or being exposed to pesticides in your home/building, did anyone become sick or have any symptoms?

Symptoms can include: Difficulty breathing, blurred vision, eye irritation, nausea/vomiting, skin irritation, headaches, dizziness, or other symptom
Survey Conclusions

Need for behavior change and education
• Assumption that using more pesticides is more effective
• Harsh products (like bleach) seem to be associated with effectiveness
• Direction and caution labels are not always read
• Eradicating pests seems to be conducted by the tenant- in some instances, and by the building personnel
• Fumigation is the solution to pests
• Some understanding, and use, of control/intervention methods- not widely used

Children’s health are affected the most from pesticide use
• The majority of the respondents that answered to being affected by pesticides, were children
IPM Intervention Project Results
South LA Building Results: Orchard

- Base Line Trapping (04/20-04/22)
- Green Cleaning Trapping (06/03-06/06)
- Repairs Trapping (8/4-8/6)
- Final Trapping (12/8-12/10)
South LA Building Results: Hill

- Base Line Trapping (04/11/11-04/13/11)
- Green Cleaning Trapping (04/26/11-04/28/11)
- Initial Repairs Trapping (07/25/11-07/27/11)
Highland Park Building Results

Base Line Trapping (04/20/11-04/22/11)
Green Cleaning Trapping (05/03/11-05/05/11)
Mid-Wilshire Building Repairs

Units with less than 3 trappings were removed from the chart
Issues in the Buildings

- Uncovered & Broken Kitchen Fans
- Gaps between Kitchen Cabinets
- External Water Pipes-Damaged and corroded
- Cracks and Crevices-Hiding places for roaches
- Mice = entryway

Owners attempt to Repair
Fixing Leaky Faucets as Part of IPM

Owner making repairs to leaks

Tenants “fixing” the leak themselves

Paper absorbing the water leak inside a bathroom cabinet
Some Successes

New wooden floors- removed old carpeting. Starting to caulk.

Sealed all cracks behind the kitchen sinks

Owner paid for all the repairs and changes that were done.
Some Success, with Challenges

1A. Cleaned cabinets, sealed gaps and restored kitchens.

1B. Same building as 1A, but not same repairs.

New bathroom sinks for tenants were installed. But the building was so old that the walls are falling apart.
Update

• Currently working with the owner of the Harvard Building to implement an IPM program *after* the project

• Working with the Hill Building to complete repairs and to continue an IPM program *after* the project

• 55th Avenue and Orchard have been classified as “tenant rights” buildings- some IPM interventions were done, but not completed
Analyzing the IPM Data
The Results Show...

- IPM methods must be ongoing
- Decrease in roaches after consistent use of IPM – usually within 10-12 weeks
- Coordination and communication must exist between the tenants, building manager/owner, and pest control operator
- Green cleaning had to be done throughout the project in order to consistently decrease roach populations
  - Units that were inconsistent in their green cleaning had inconsistent roach reductions
- Close relation to roach populations and water leaks
  - Repairs were essential
- Monitoring by the owner has to take place every three months to control infestations
- The age and maintenance of the building is important to note before starting an IPM project. If the building looks to be in good condition but several “maintenance” issues come up, then it is better to assess the building as a “tenant rights” building, get the issues remedied and then start the IPM program.
Challenges...

- Developing tailored messages to the owners
  - Focus on overall cost savings
- Ongoing tenant engagement and lack of resources
  - IPM required s time
  - IPM requires a team approach
- Multiple infestations in one unit
  - IPM approaches are usually tailored for one type of infestation, having multiple pest infestations require a multi-IPM approach
Policy and Research Recommendations

• Healthy housing policy needs to consider housing infrastructures or habitability issues
• Increased Education to building managers/owners on the cost savings of using IPM approaches must be available
• Collect more data on cost and savings data for building and individual tenants
• Improve medical management and reporting of urban pesticide illness
Next Steps

• Work with local housing and health departments and explore how code enforcement can help promote use of IMP in homes
• Deepen relationship with Apartment Owners Association
• Complete web site
• Distribution of results in a very strategic way.
  • Meet with city attorney
  • Building and Safety with City of Los Angeles
  • Meet with City Housing Department
• Increase Fundraising to continue with the policy and education components