Promoting IPM and the Reduction of Pesticide Use in NYC: Programmatic and Policy Initiatives

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Why Tie IPM to Health Promotion?

- Cockroach and rodent infestation linked conclusively to asthma morbidity
- Epidemiological risks from professionally applied pesticides, personal use of off-the-shelf and illegal pesticides
- Structural solutions to infestations overlap with solutions to other housing problems associated with negative health outcomes
- Poor pest control shifts costs from housing system to health care system
- A public health approach may achieve some things advocates of safer pest control cannot
Presentation Outline

- Pest and pesticide surveillance in NYC
- A health department promotes IPM
  - IPM in public and private rental housing
  - IPM and rodent control
  - Policy Initiatives
- Discussion, collaboration
Pest and Pesticide Surveillance

- CDC Environmental Public Health Tracking has supported hazard, exposure and health outcome surveillance in NYC
- Local behavioral risk factor surveys (n=11,000) to determine pest and pesticide use prevalence
- Exposure survey (n=2000) of representative New Yorkers
Rodents in NYC Residences

Source: Housing & Vacancy Survey 2002
Cockroaches in NYC Residences

Percent households with cockroaches

- 4%–10%
- 11%–25%
- 26%–40%
- 41%–57%

Source: Community Health Survey 2003
Racial and Income Disparities in Infestation

Source: Community Health Survey 2003
Infestation and Housing Disrepair are Associated with Asthma

<table>
<thead>
<tr>
<th>Asthma, infestation and disrepair</th>
<th>% reporting recent symptoms of asthma</th>
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<tbody>
<tr>
<td>Cockroaches in household</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>6.2</td>
</tr>
<tr>
<td>No</td>
<td>4.0</td>
</tr>
<tr>
<td>Rodents in building</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>12.5</td>
</tr>
<tr>
<td>No</td>
<td>6.0</td>
</tr>
<tr>
<td>Cracks or holes in walls of apartment</td>
<td></td>
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<tr>
<td>Yes</td>
<td>12.9</td>
</tr>
<tr>
<td>No</td>
<td>6.6</td>
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Source: Community Health Survey 2003
And Infestation Leads People to Use Pesticides Unsafely

Source: Community Health Survey 2003
Promotion of IPM In Rental Housing

- 1999 Pilot Program in New York City Housing Authority (NYCHA) Development
- NYCHA Expansion – Whole Building Approach
  - Creation of NYCHA IPM Unit
  - Implementation and Evaluation of IPM in 5 NYCHA Developments (2,300 apartments)
  - System-wide changes to pest control practice
- NYC Childhood Asthma Initiative Adoption of IPM as Official Environmental Intervention
Our Simple Approach to IPM

- Professional cleaning to remove food sources, cockroach and rodent traces in kitchen and bathrooms
- Caulking and sealing kitchen cabinets and other points of entry
- Use of gels & bait stations, boric acid powder, diatomaceous earth
- Suspension of all commercial spray pesticide use
- Residents receive a garbage can with a lid, food storage containers, and cleaning supplies.
Evaluation Highlights: Cockroaches

Weekly Trapped Roach Counts over Time in Intervention vs. Control Apartments

- **Control**
- **IPM Intervention**

Median Weekly Roach Count

Baseline | 3 months | 6 months

- Baseline: Control > IPM Intervention
- 3 months: Control > IPM Intervention
- 6 months: Control < IPM Intervention
Evaluation Highlights: Rodents

Percent of Households Seeing at Least One Mouse per Week over Time

- Baseline
- 3 months
- 6 months

- IPM
- Control
Childhood Asthma Initiative Approach

Health Managed Care Organization

Childhood Asthma Initiative

Tenant Recruited to IPM Intervention

Supportive Asthma Services

Interior IPM Services and Supplies

Asthmatic Renter in Targeted Neighborhood
IPM and Exterior Rodents

Problem: governmental response to urban rats is typically reactive

IPM Approaches in NYC:
- Retraining all municipal pest control and building maintenance leadership in 3-day Rodent Academy
- Mining administrative data to evaluate community factors and risks for rodents
- Initiating rodent indexing
Promoting IPM via Outreach and Policy

- Consumers and retailers
- Landlords and tenants
- Municipal government
Hardware Store Campaign

Healthy Homes

Pests

Pests - including roaches and mice – are common asthma triggers in the home. Using pesticides may also be unhealthy. Use safer pest control in the home.

Things You Can Do

Deny pests food and water
- Keep your home clean and dry.
- Store food in sealed containers.
- Fix leaks and dripping faucets quickly.
- Wash and dry dishes after each use.
- Empty your kitchen garbage every day.

Deny pests entry and shelter
- Use caulk and plaster to seal holes and cracks in walls, floors, and ceilings.
- Reduce clutter, cardboard and newspapers.

Use safer products: avoid foggers, bombs and sprays. Never use products called “Tempo”, “Tres Pasitos”
Reports to Policy Makers and Media

NYC Vital Signs

Pests Can Be Controlled ... Safely

Many New Yorkers live with or near cockroaches, rodents, and other pests. Infestations in the home contribute to illness and reduce the quality of life. For example, people with asthma who live in infested homes are more likely to have an asthma attack. And, many people with pests in their homes overuse hazardous pesticides that can cause poisoning and other health problems.

Some pesticides that are illegal for sale in New York City are still used in the homes of many New Yorkers trying to eradicate pests. Each year, about 1,000 people report accidental hazardous exposures to pest control products, and the long-term effects of being regularly exposed to many commonly used products have not been studied. No one should have to live in homes infested with pests. Fortunately, pests can be controlled safely.

Too many New Yorkers live with cockroaches and rodents

- Adults in nearly 30% of households (880,000 households) report having cockroaches in their home, and nearly 25% (680,000 households) report seeing mice or rats, or signs of mice or rats, in their home or residential building.

- Cockroach and rodent infestations are most common in Northern Manhattan, Southern and Central Bronx, and Central Brooklyn.
NYC Adopted Municipal Use Reduction Bill in 2005

- Phase-out of certain pesticides
- Prior notification for pesticide applications
- Recordkeeping & reporting requirements to City Council & DOHMH
- Inter-agency pest management committee and IPM planning
Phase-Out Schedule

☑️ November 9, 2005: EPA-classified Toxicity Category I ("Danger")

☐ May 9, 2006:
EPA-classified known, probable, likely, possible carcinogens

☐ November 9, 2006:
California-classified developmental and reproductive toxins
Local Law 37 of 2005 amends the administrative code of the City of New York to promote the reduction of pesticide use by City agencies. Municipal agencies are now phasing out the use of certain pesticides, instituting new recordkeeping and reporting procedures, and providing prior notice to the public before many pesticide applications.

For more information about Local Law 37, click on one of the fact sheets to the right. To determine whether a pesticide is prohibited under Local Law 37, click on “Search for Product Prohibition Status.”
Local Law 37 prohibits the use of certain pesticide products based on their toxicity and potential to cause cancer and/or reproductive effects.

The tool below can be used to evaluate whether any product registered by the U.S. Environmental Protection Agency (EPA) is prohibited for use on New York City owned or leased property.

You must enter either the EPA product registration number* or the product name.

Company Code: 279
Product Code: 3081

Product Name Lookup - Enter the full name or any part of the product name.

Cynoff

*Certain EPA product registration numbers contain an additional distributor number (XXXXXX-XXXXX-XXXX). Please exclude the distributor number when performing a product search. Products with a distributor number will have a different name but the same formulation as the primary registered product displayed here.
Product Prohibition Results

1805 - 2005
Protecting Health for 200 Years.

NYC
Health

Pesticide Product Search Result
Prohibition Status under Local Law 37
Date of Search: 1/6/2006

Product Name: CYANOEC EC INSECTICIDE
EPA Registration: 800279-03001

Local Law 37 Prohibition Status:
PROHIBITED: Use of this product on New York City property is prohibited by the provisions of Local Law 37, effective May 9, 2006. See below for specific reason(s) for the prohibition.

CRITERIA CONSIDERED IN DETERMINING PROHIBITION STATUS
Toxicity Category

NOT PROHIBITED: This product is not classified by the U.S. Environmental Protection Agency as Toxicity Category 1.

Carcinogenicity

PROHIBITED: Use of this product is prohibited on New York City property due to one or more of its active ingredients being classified as a possible, probable or known carcinogen by the U.S. Environmental Protection Agency, effective May 9, 2006.**

Active ingredients prohibited by Local Law 37 on the basis of their carcinogenicity status

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<th>Active Ingredient</th>
<th>CAS No.</th>
<th>EPA Carcinogenicity Status</th>
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<tr>
<td>Cypermethrin</td>
<td>0052215079</td>
<td>Group C - Possible Human Carcinogen</td>
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Features of the IPM DOHMH-NYCHA Collaboration

- Environmental area of intervention outside the direct regulatory control of Health Department
- Targets of change are institutional and individual
- Lessons have broad applicability to entire city, general public
- Health Department able to play significant role without significant staff resources
Inter-Agency Environmental Collaboration: Roles for a Health Department

1. Technical advisory capacity
2. Secure health-based funding for environmental goals
   - IPM
   - Environmental Public Health Tracking
   - Healthy Homes
3. Create flexible staffing and collaborative work environments promoting innovation
4. Design and conduct evaluations, research
5. Assemble constituencies, allies
6. Shift or accelerate secular trends
7. Exert scientific leverage
Acknowledgements

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<tr>
<th>DOHMH</th>
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<td>Marta Hernandez, MPH</td>
<td>Brian Clarke, MS</td>
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Consultants

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<td>Audrey Thier, MS</td>
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<td>Bobby Corrigan, PhD</td>
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