



**The notes associated with the slides are for trainers to reference. Text in regular font supplement the information present on the slide. Text in italics gives extra information to be shared with or activities to be done with trainees.**

*Display this slide while trainees arrive.*

*During registration each trainee should*

- 1. sign in;*
- 2. fill out two name tags, one for his or her shirt and one for the table (for the trainer to see);*
- 3. get a binder; and*
- 4. socialize.*

*Determine who is in the audience (names, jobs, and skills).*

*Stay at the registration table and introduce yourself as people arrive.*

*Better yet, get a non-trainer to monitor the registration table so that you can mingle.*



Logos on this slide represent entities that have supported the training which was developed by the Northeastern IPM Center under a contract with USDA-CSREES. USDA-CSREES and HUD have an interagency agreement to provide this training to conventional public housing authorities across the country.

This training was developed from courses piloted by Rivard's Resources: IPM; Boston University; Boston Housing Authority; and The National Center for Healthy Housing.

A complete list of reviewers is in the Agenda section of the training binder.

Disclaimer: This IPM training program was developed by a partnership including the U.S. Department of Agriculture Cooperative State Research, Education, and Extension Service, the U.S. Department of Housing and Urban Development, the U.S. Environmental Protection Agency, Centers for Disease Control and Prevention, The Pennsylvania IPM Program, the National Pest Management Association, the National Center for Healthy Housing, and the Regional IPM Centers. EPA, HUD, CDC, and USDA-CSREES provided funding.

The materials contained herein present a research-based, balanced, and objective approach to pest management in affordable housing and are intended to be used in their entirety. Any nonobjective or partial use of the materials is not recommended. Products, vendors, or commercial services mentioned or pictured in the trainings or presentations are for illustrative purposes only and are not meant to be endorsements.



*Ask that cell phones be turned off or silenced.  
Give directions for restrooms and asking questions.*


## Resources

- Networked resources are available at:
  - [www.StopPests.org](http://www.StopPests.org)
  - [www.healthyhomestraining.org/ipm/training.htm](http://www.healthyhomestraining.org/ipm/training.htm)
- The binder is yours to keep
  - Copies of presentation slides
  - HUD's Voluntary Guidance on IPM
  - Pest fact sheets



**By the end of today, you will know**

- Why pests are health threats.
- How to control cockroaches, rodents, and bed bugs.
- Why Integrated Pest Management (IPM) is the most effective way to control pests.
- Your role in the IPM team.



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This slide lists the course goals.

The PHA has committed to support an IPM approach and these are the things trainees will need to know to practice IPM. This course is not designed to license anyone to apply pesticides.

*Give a quick overview of the agenda and show where it is in the binder. Show trainees other tabs and pockets in the binder.*

*After trainees get an idea of what they will learn, explain that getting their questions answered is a large part of what we want to do. Encourage trainees to ask questions.*

*Suggestion: If a question is asked that will be addressed later in the day, write it on a flip chart (“bin” or “parking lot”) at the head of the classroom so that it is not forgotten.*



*Give trainees time to describe what pests they see and how they currently deal with them.*

## **Pests cause problems**

- Trigger/cause asthma and allergies
- Bite
- Contaminate food
- Lead people to overreact and ignore pesticide labels
- Transmit disease
- Hitchhike in belongings
- Violate housing codes

***IPM makes homes healthier!***

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Mice drip urine and leave their dander wherever they go. Cockroaches leave their poop (frass) and shed skins. All of these in a home trigger asthma attacks and may even cause asthma.

Define pesticides as any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest (EPA). The chemicals that people use to kill pests pose a risk. Children are more vulnerable than adults because they are closer to the floor, do not have high tolerance for toxins, and put many things in their mouths. Pregnant women also are more vulnerable to pesticides. In addition, when exposed to pesticides, people with multiple chemical sensitivities experience adverse reactions and will not be able to participate in daily activities.

If pesticides are necessary, residents and staff should leave their application to the professional. By using them, they could unnecessarily expose themselves and their families to pesticides and make the pest problem worse.

## Priority pests

- **Cockroaches** cause asthma in infants, trigger asthma attacks, and contaminate food.
- **Rodents** such as mice and rats carry diseases, bite, destroy property, may cause fires, and may trigger asthma attacks.
- **Bed Bugs** and their bites are a nuisance and are expensive to eliminate.

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These are the top three pests in affordable housing.

There are many pests that we could address in the course. Pest Management Professionals (PMPs) take much longer courses to understand each of the pests and that is why they are needed in any pest management effort. Encourage trainees to ask their PMPs questions. If qualified, they should know all the answers or be willing to get them.

Bed bugs are not the same thing as dust mites. This is a common misunderstanding.

*Suggestion: Ask what pests are a problem in the PHA. Make a list of pests that are not cockroaches, rodents, or bed bugs. Try to incorporate the other pests into discussions throughout the day, noting when a control measure being discussed will help control other pests of concern.*

Reference: The “\_\_\_\_\_ are health hazards” slide in each of the cockroach, rodent, and bed bug presentations.



## Other public health pests

- Mosquitoes transmit West Nile Virus
  - Need standing water
- Ticks transmit Lyme Disease
  - Get on people from bushes and rodents
- Fleas cause itchy welts
  - Come into buildings on pets and wild animals
- Bird and rodent mites make us itch
  - May move into a unit when the wild host moves out
- Lice make us itch
  - Spread on used or shared items and via person-to-person contact
- Dust mites cause asthma
  - Flourish with high humidity and poor sanitation

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These are the major public health pests identified by CDC. Each will be managed in part by the IPM approaches being taught for cockroaches, rodents, and bed bugs.

*Use the public health pests to talk about how IPM for cockroaches, rodents, and bed bugs will solve other pest problems too.*

Drying up pools of water so that rats don't have a water source eliminates mosquito breeding areas.

Trimming shrubs and grass for rodent control helps with ticks.

Fixing holes prevents feral cats from entering buildings (a source of fleas).

Avoid bringing home used items because they may be infested with bed bugs. This practice will also help prevent lice and mites.

Dust mites are not bed bugs. Bed bugs will be covered later in the day. Used together: vacuuming, cleaning, and reducing humidity below 50% will help control dust mites. Unlike the other pests we have discussed, dust mites can't be eliminated.

## What all pests need

- Food
- Water
- Shelter



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Pests require three things to survive: food, water and shelter. Without any of the three, they won't "stand up." The three legged stool illustrates this point.

## What is IPM?

- **Integrated:** Uses multiple approaches that work together.
- **Pest:** What the multiple approaches work to fight.
- **Management:** Use of the most economical means with the least possible risk to people, property, and the environment.

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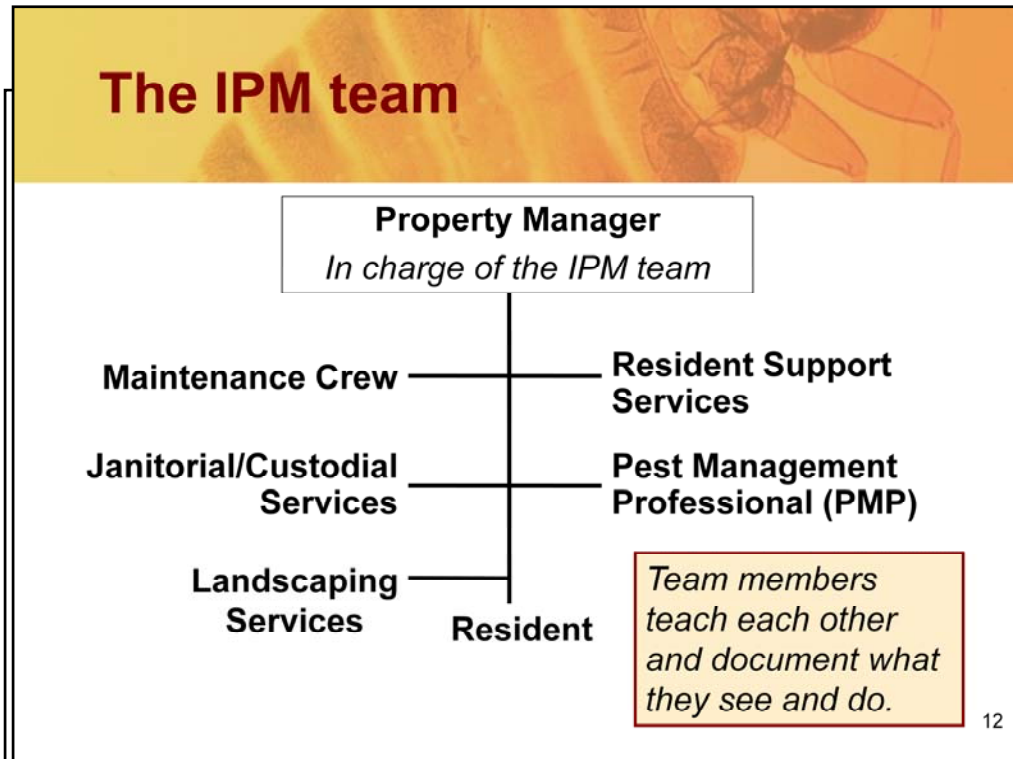
Integrated: sanitation, exclusion, and baits.

Pest: cockroaches

Management: no more cockroaches!

*Suggestion: Ask trainees what they think of when they hear “management.”*

*Tell them that they will have to be pest managers, overseeing all of the time and watching for parts of the building system that need to be fixed.*



Give a brief introduction to the IPM team approach. Note that the PHA and HUD have agreed to support the use of IPM. IPM and roles and responsibilities will be further discussed throughout the day.

Explain how education and record keeping can be used to control pests. Education results in people at the PHA changing behaviors so that the PHA is inhospitable to pests. Record keeping brings accountability to pest management and ensures that problems are fixed before the infestation grows. Documentation and education will be in every aspect of pest management.

**Property Manager**

Makes sure all jobs are funded and completed. They can't outsource the responsibility for pest control.

**Resident Support Services**

Gets assistance for residents.

**Janitorial/Custodial Services**

Cleans common areas.

**Maintenance Crew**

Fixes moisture issues and makes repairs that block pests.

**Resident**

Cleans regularly and prepares unit for inspection and necessary treatments.

**Pest Management Professional (PMP)**

Conducts inspections and applies pesticides that pose the least risk to human health and the environment.

**Landscape Services**

Chooses plants that are pest-resistant and grow with minimal chemical assistance. Minimizing rat habitat should be considered when planting.

## How will you fight pests now?

“Exterminator” is now a  
Pest Management Professional (PMP)



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The discussion of how trainees manage pest problems and whether they have good control can lead into a discussion of “exterminating” versus “managing” pests. Exterminating is an old term that the industry has moved away from. As the trainees may have experienced, spraying with the intent to kill does not completely eliminate the problem. “Managing pests” is the correct expression and the one that will be used today. To manage pests, one must not only get rid of the current problem, constant preventative measures must be taken. Pest management is done with the help of a pest management professional, a PMP. “With the help of” is key. It takes everyone to manage pests. From this point on in the training, use the terms pest management and pest management professional (PMP).

If you normally use the term Pest Control Operator (PCO), introduce that synonym now to avoid confusion. PMP is the term used on the slides.

*Ask trainees if they think that their way is the best way to get rid of pests. Why or why not? Have a discussion. EPA does not assess effectiveness, only risk/benefit when used in accordance with the label. Try to incorporate effectiveness into the discussion. By the end of the day we want trainees to be able to choose pest control products based on risk AND effectiveness.*

## What you will gain

IPM will give you...

- **A healthier building:** Fewer asthma attacks, less exposure to pesticides, and less of a chance you will take pests home.
- **Fewer complaints:** A Boston Housing Authority development reduced cockroach work orders by 68% after one year of IPM.
- **Fewer pests:** You can stop infestations from growing and spreading disease.

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More effective than conventional pest management, IPM

- helps prevent asthma attacks;
  - improves quality of life;
  - coordinates responsibilities;
  - relies on products and practices that work together and minimize exposure;
  - provides longer lasting control aimed at preventing pests;
  - makes better use of limited resources;
- reduces complaints;  
lowers pest control costs in the long run; and
- Is more sustainable than relying on sprays alone.

100% elimination of the priority pests (cockroaches, rodents, and bed bugs) inside each unit is difficult, but can be done and should be the goal. With a team IPM effort, pest problems can be reduced to isolated incidents that get taken care of before they grow and spread. Asthma attacks and allergies can be triggered by any cockroach presence, so their presence should not be tolerated. It is possible to rid a unit of pests and clean up after them so that asthma attacks are reduced.

*Suggestion: Remember, the audience is PHA staff, not residents. The PHA needs to provide safe housing to its residents, but the fact that IPM repairs will make the workplace healthier for staff too may hit home for the trainees. Do any trainees know someone with asthma? Do trainees have family members or friends who are sensitive to or “allergic” to pesticides? Have trainees ever brought a pest home by mistake?*

*How would their jobs change if residents improved sanitation and there were fewer work orders? Note that work orders will increase at first since residents and staff will be encouraged to use the work order system, but when repairs have been made for prevention, there will be fewer work orders than ever.*



*“We do IPM because it is the right thing to do and because it works. Allowing our residents to live in a pest-free home is a basic service as well as a huge quality of life issue.”*

—Gail Livingston  
Director of Operations and Property Management  
Boston Housing Authority

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**What position do you have on the IPM team?**

Introductions

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*Have trainees introduce themselves and give their position.*

*Don't let this turn into a complaint session, but if there are major concerns or problems at the PHA they may be voiced at this time.*

*Suggestion: Have a flip chart up front where points can be written and addressed throughout the day.*