



Connecting Health & Housing: Integrated Pest Management

Presented by:

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Public Health Training Center

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Learning Objectives

After this tutorial you will be able to...

1. Identify the healthy homes issues related to pests
2. Describe the connection between pests management and a healthy home
3. Address pest concerns in the home using integrated pest management

Identify the Problem

- Unwanted Pests
 - Cockroaches
 - Rodents
 - Dust mites
- Pesticides can be harmful
 - Pregnant women
 - Children
 - Family pets



Identify the Problem

- How do they enter a home?
 - Unsealed cracks and openings
- Why do they enter a home?
 - Food (improperly stored)
 - Water
 - Shelter (clutter)



Identify the Problem

Facts About Cockroaches

- Can squeeze through cracks as slim as a credit card
- Can live almost a month without food
- Can live about two weeks without water
- One drop of grease can feed a cockroach for one month
- Spread 33 kinds of bacteria, 6 kinds of parasitic worms and cockroach feces "frass" which may cause allergic reactions



Identify the Problem

Facts about rats and mice

- A Mouse can squeeze through a 1/4 by 3/8 inch hole
- Build their homes near sources of food
 - eat about 15-20x a day
- Good jumpers, climbers and swimmers
- Can also bring in fleas, mites, ticks and lice into the home
- *Droplets of urine can cause allergies in children*



Magnitude of the Problem

- Pesticide usage
 - Most common method to get rid of pest
- Health effects associated with pesticide usage depend on the type of pesticide, but may
 - Affect the nervous system
 - Irritate skin and eyes
 - Be carcinogenic
 - Disrupt hormone or endocrine system
- Importance of Integrated Pest Management (IPM)

Magnitude of the Problem

- American Housing Survey
 - Administered by the U.S. Census Bureau every two years by phone to ask questions about the quality of housing in the U.S.

Physical Deficiencies (numbers in thousands)	
Signs of rats in the last 12 months	1,171
Signs of mice in the last 12 months	12,743
Signs of cockroaches in the last 12 months	13,157
Open crack or holes (interior)	1,173

What is IPM?

- IPM = Integrated Pest Management
- A science-based common sense approach for managing populations of disease vectors and public health pests
- Management techniques focus on
 - Prevention
 - Pest reduction
 - Elimination of conditions that lead to pest infestations

Don't attract them! Keep them out! Get Rid of them!

What is IPM?

- May include the use of pesticides but often as a last resort
 - Focused on trapping and poisoning
- 5 Components of IPM
 - Inspection/monitoring
 - Routine checks of indoor and outdoor areas
 - Are they present?
 - Are conditions conducive for pest infestations
 - Identification
 - If there is evidence of pest, knowing what type and species will help develop control methods

What is IPM?

- Establishment of threshold levels
 - You may not be able to get rid of all pests, but keep populations small enough so it doesn't impact health
- Implementation of two or more control measures
 - Managing the environment to eliminate pet access to *food, water and shelter*
 - Control measures should address at least two of these
- Measurement and evaluation
 - Regularly follow-up to determine success of treatments and next steps

What is IPM?

- Advantages
 - Comprehensive, system-based approach to pest management
 - Safe
 - Most effective
 - Most economical
 - It can be sustained
 - Reduces the risk from pests
 - Reduces the risk from overuse or inappropriate use of pesticides

Connection to the Home



Cockroach frass (feces)

- The presence of cockroaches, mice, and rats can exacerbate an asthma attack
- Identifying cockroach frass
 - Appears as greasy splatters located in small concentrated areas
- Identifying mice/rats dropping
 - Rod-shaped similar to a grain of rice

Healthy Homes Recommendations

- Remove pests' access to food, water and shelter by cleaning regularly
- Seal cracks and openings in your home and make sure all windows have screens
- Store food in pest-resistant containers and keep pet food stored and off the floor
- Use safe alternatives to pesticides, such as sticky traps or sealed bait traps
- Do not use pesticides in your home. Pesticides should only be used by a trained professional

Healthy Homes Recommendations

Checklist for a Pest-Free Home

Pesticides should be stored out of the reach of children

Frequently vacuum

Eliminate clutter

Repair or seal any holes in walls or floors

Store all food & trash in sealed containers

Eliminate sources of water

Take out the trash every day

Explore other options before resorting to pesticides

Conclusion

- Education is key
 - Environmental modifications can help prevent a pest infestation and asthma attacks
 - Remove sources of food, water, and shelter
 - Seal holes and cracks
 - Remember they don't need much space
 - Cleaning and de-cluttering inside and outside can go along way
 - With IPM, pesticides don't have to be the first line of defense.