Managing Pests in Child Care Centers Using Integrated Pest Management (IPM)
The purpose of this course

• This presentation is designed to give several levels of training to the people who work in child care centers:
  – Center operators, directors, decision-makers
  – Center maintenance and custodial staff
  – Child care-givers, teachers, and nurses

• Training focus is on pest reduction and prevention, and why this is important.
Curriculum

• Module 1 Introduction
• Module 2 - IPM in Child Care for Directors
• Module 3 - IPM in Child Care for Maintenance
• Module 4 - IPM in Child Care for Care Givers
• Additional Pest Modules
  – Ants, bed bugs, cockroaches, lice, mice and rats, yellowjackets and paper wasps.
Module 1 – Introduction to Integrated Pest Management

Goals:
1. To protect the health of children, staff and the environment.
2. To control pests effectively and safely.
3. To prevent pests in the future.
Take home messages:

• Children should not be exposed to pests or pesticides.
• Both pose risks to children’s health and safety.
• Parents and guardians of the children in your care expect clean, safe facilities for their kids.
• IPM is a way to reduce pest and pesticide risks.
You will learn

• How to identify pests and pest activity.
• How to use IPM to control pests while lowering pesticide use and exposure.
• Each person’s role in the IPM program.
• How to prevent pests.
Risks posed by pests and pesticides

• Injury or illness from pests
  – Allergies and asthma triggers
  – Bites from animals and insects
  – Food-borne illness

• Injury and illness from pesticides
  – Overexposure, poisoning
  – Chronic, long-term effects
  – Hypersensitivity
How People Are Exposed to Pests

• Inhalation of dander, droppings & urine
  – Mouse and cockroach allergens
• Skin contact
  – Rodent bites
  – Bed bug bites
  – Lice, mosquitoes
• Contamination of food and products
How People are Exposed to Pesticides

• Inhalation of dust particles, vapors, aerosols (sprays).
• Ingestion of residues that get on the skin, food, dishes or anything that goes into a child’s mouth.
• Contact and absorption through the skin of pesticides from the environment, indoors and outdoors.
A pest is anything that:

- Injures humans, structures, or possessions;
- Competes with humans for food or water;
- Spreads disease to humans or domestic animals.
Ways to reduce these risks include:

• Follow all laws and regulations about pest management or pesticide use in child care.
  – Do you know what these are for your state?
• Prevent pests – don’t allow pest problems to happen.
• Use an integrated pest management (IPM) program for prevention and control.
Integrated Pest Management

• An IPM program uses common sense strategies to reduce food, water and shelter for pests in buildings and grounds.

• An IPM program uses all pest management tools, including the careful use of pesticides, when necessary.

• IPM is a safer and more effective pest management program.

• IPM can be cheaper in the long run.
Integrated Pest Management (IPM)

- Knowledge intensive (know the pest!).
- Think about long-term pest control.
- Major emphasis on pest prevention.
- Tracks changing conditions that favor pests.
- Major purpose of most site visits is to inspect.
- Types and amounts of pesticides used, if any, are limited to products posing least-risk of exposure or toxicity.
To control and prevent pests we must change our habits as well as our habitat to reduce and eliminate the pest’s “Triangle of Life”.

**Pest Triangle**

- **FOOD**
- **WATER**
- **SHELTER**
IPM decision-making includes:

• How much risk is presented by the pest?
  – For example, a ladybeetle vs. cockroach
• Does it need to be addressed immediately, or can it wait?
• Do you have a protocol for this problem?
• What are the best management steps to take?
The steps of IPM are as follows:

1. Identify the pest if it can be found.
2. Conduct a thorough inspection or hire a PMP to inspect.
3. Identify reasons for pest entry.
4. Act to exclude the pests and prevent future entry.
5. Use sanitation for pest management.

   **If intervention is needed:**

6. Use mechanical control options:
   a) Traps
   b) Cleaning and removal of pests

7. Use pesticide(s) appropriate for use in child care centers.
8. Follow up and monitoring steps.
9. Recordkeeping.
Identify the pest

1. Gary Alpert, Harvard Univ., bugwood.org

2. IFAS - UFL

3. Unknown origin
Conduct an inspection or hire a PMP to inspect

• Inspection is used to define the problem.
• What pest, how many are there, how serious is the problem?
• What conditions are helping the pest?
  – Gaps, holes, openings
  – Torn screens, open windows and doors
  – Moisture, leaks, wet wood or damage
  – Food available for pests, trash or grime
What problems do you expect?
Choose ways to exclude the pests and prevent future entry

- Windows and doors, under siding and roof top flashing – common places for pest entry.
- Repair screens, seal gaps, install door sweeps
- Drain covers in floor drains
- Can you can think of others?
Sanitation for pest management

• Sanitation reduces food and water for pests.
• Organizing removes hiding spots.
• Cleaning removes pest allergens, such as mouse droppings.
Sanitation for pest management

• Change sanitation routines to help prevent pests
  – Take all garbage out at the end of the day.
  – Wipe up spills and crumbs
  – Clean in and under refrigerator/microwave often
Mechanical control options

• Traps capture pests so they can be removed.
• The truth about electronic “pest repellers” is they do not work.

Gary Alpert, Harvard Univ., Bugwood.org
Appropriate pesticide use in child care centers

• Follow state and local laws; some places do not permit any pesticide use in child care.
• “Lowest risk” products should be used.
• Low risk = low toxicity and/or no risk of exposure.
• Products are placed out of reach or in areas where people do not sit, sleep, crawl, etc.
• Some formulations (dust, aerosol) increase the chance of exposure.
Follow up and monitoring steps

- Check back to see if the pests are gone. If not, a new method may be needed.
- Monitoring is done by setting traps over a longer period of time. Monitors should be checked regularly.
Recordkeeping

• Pest activity/complaint records help track problems and will show if it’s getting better or worse.

• Keep a record of pest management activities that were tried to know if a method does or does not work.

• Record help identify issues if there is ever a question of health problems resulting from pest presence or pesticides used.
Do you really pay more for IPM?

- Because IPM involves repairs and improvements in the first phase, it may cost more at first.
- Long-term control means declining costs later.
- These improvements help with more than IPM. Better building quality, energy use results.
- Repeated pesticide application “treadmill” vs. a permanent fix that blocks pests out....
Adopt an IPM policy

• A policy
  – Communicates to all how pests are handled
  – Provides a framework for action for employees and contractors
  – Justifies the methods used
  – Assures clients that you are taking the right approach

• Model policies are available
• See:
  http://www.ipminstitute.org/school_ipm_2015/resources.htm#IPM_Policies
Assign an IPM coordinator

• You do not need a new employee. This could be the facilities manager or a custodian.
• The IPM coordinator should be interested in this program and willing to participate.
• Tasks include:
  – Understand some pest management basics
  – Coordinate with pest management contractor (PMP)
  – Maintain log book of pest sightings and actions taken
  – Coordinate facility improvements
  – Communicate with others about pest management
Hiring a Pest Control Contractor

Hire a Pest Management Professional (PMP) who:
• Knows the laws and regulations of your state.
• Recognizes the need to protect children by using IPM.
• Is skilled enough to control and prevent pests using methods other than pesticides.
• Provides on-going inspection and monitoring for pests
• Is willing to communicate and work with you
• Has training and / or credentials in IPM
Role of facility staff vs. PMP

Staff
• Sanitation
• Building repairs
• Use traps, service traps
• Monitor for pests
• Keep records of pest complaints and actions

PMP
• Inspection for pests and needed building repairs
• Monitor for pests
• Keep records of pest activity and actions
• Use traps, service traps
• Use pesticides, including baits and sprays
Provide training for staff and parents

• Each staff member plays a role in pest management (cleaning, recognizing pests).
• Awareness leads to early detection of pests.
• Early detection makes it easier to stop and prevent infestations from getting BIG.
• Parents play a role with control of some pests.
• Parents should understand the center’s approach to pest management.
Action Items

• Find out how pests issues are managed in your facility.
• Is there an IPM or Pest Management policy?
• Who makes the decisions about pest management?
• Is your facility inspected regularly with pests in mind?
Learn more

• Follow additional modules based on your role in child care:
  – Director, administration – see Module 2
  – Maintenance staff – see Module 3
  – Care givers and teachers – see Module 4