Module 7- Dealing with Bed Bugs in Child Care Settings

Integrated Pest Management for Child Care Settings
Bed Bugs in Child Care Settings

- Bed bugs are often introduced to schools and child care centers from infested homes.
- Bed bugs are not an issue of hygiene or poverty. Anyone can get them.
- They must be addressed immediately to protect children, families and staff and to prevent further spread.
Proactive advice for child care businesses

• Create a protocol for dealing with a bed bug sighting or introduction.
• Decide who will identify the sample within 24 hours?
• How will parents be notified?
• Will there be a policy for repeat introducers?
• Recognize that a pest control service should be involved if bed bugs are an issue.
Proactive advice for child care businesses

• At what point will the facility take action in the area where a bed bug was found?

• What will that action be?
  – Inspection and monitoring
  – Intensive cleaning
  – Some type of least-toxic treatment
  – Isolation of belongings may be needed if introductions are frequent.

• Educate staff and parents before bed bugs become an issue. Use flyers or meetings.
What are bed bugs?

- Insects with six legs and no wings.
- They feed only on blood.
- They bite using a straw-like beak.
- They are very good at living with people and hiding out of sight.
Recognize a bed bug

- Adults are ¼ to ½ inch long
- Reddish-brown oval to round shape
- Feed on blood at all stages of life (except the egg)
- Can run quickly and will hide in small crevices
Young bed bugs (nymphs)

- Very small but not invisible
- Feed on blood
- Tend to cluster together and hide in crevices.

Tiny bed bug with a sesame seed

Photo by J.L. Gangloff-Kaufmann
Bed bug eggs

- Tiny but visible, white, bean shaped
- Glued in place
- Resistant to many pesticides
- May be clustered together in hiding spots or spaced apart.
Other signs of bed bugs

• Fecal stains of digested blood
  – Stains may soak into fabric.
  – Stains may dry as a dot on a non-porous surface.

• Tan or dark brown in color.
Like magic marker stains
Bed bug bites

• Bed bug bites vary among people from nothing to severe.

• Bites may be seen in lines.

• Look at a child’s face, neck, arms, hands and feet for bites.

• This doesn’t prove bed bugs but may be a clue.
Behavior of bed bugs

• They do not jump or fly.
• Bed bugs hide and do not like being disturbed – they will run away.
• They hide in gaps as narrow as a credit card is thick. They often hide in groups.
• Bed bugs prefer darkness but will sometimes be active and bite in daylight.
Behavior of bed bugs

• Bed bug females lay eggs. The young look like small adults.

• Pregnant females prefer to lay their eggs on wood, paper and fabric.

• Bed bugs are good hitchhikers.

• Transferred mainly on people’s belongings.

• They can move on their own to new areas.
Bed bugs in child care

• In child care, it may be difficult to say where bed bugs came from.

• Unlike most schools, child care involves napping. Children are more likely to be bitten in beds or cribs, while they sleep.

• Do not apply pesticides to cots, beds, cribs or any bedding.
Introduction vs. infestation

• There is a difference between the two.
• Introductions happen when bed bugs drop off belongings into the facility.
  – It may not be a female – dead end…
  – It may not find a host – dead end…
  – It may be killed by human activity.
• BUT, it might be female, find a host and survive to lay eggs….
Introduction vs. infestation

- Infestation happens when a female is introduced, finds a reliable host and lays eggs that hatch.
- Those eggs must survive to adulthood, feed and mate to develop an infestation.
- The likelihood is low in schools but higher in child care because of beds.
Where to look is different

- Introduction – bed bugs will be found where personal belongings are stored, closets, cubbies, coat rooms, offices.
- Infestation – bed bugs will be found where people spend more time especially children napping.
Estimate the problem

• High number of bed bugs (10-100+) = A confirmed infestation.

• Low numbers (1-10) = Multiple introductions or early low infestation.

• The longer a problem goes untreated, the more young bed bugs (nymphs) will be seen.
How to inspect for bed bugs

- Begin inspection in sleeping areas, searching for fecal stains, eggs and bugs.
- Look at bedding, blankets, cots and crib mattresses.
- Look in gaps of the furniture and all seams of fabrics.
How to inspect for bed bugs

• Continue inspection by carefully looking at diaper bags, cubbies, children’s clothing and staff belongings.

• It is good to identify the source to stop the transfer of bed bugs into a facility.

• However, this is also a sensitive topic with legal consequences.
So a bed bug was found

• Do not reach for pesticide as a first step!
• Many child care facilities prohibit all pesticide use.
• Only licensed professionals may legally use pesticides in child care facilities in many states.
• Use cleaning, organizing and heat as the main strategies against bed bugs.
Basic protocol for treatment

- Clean the affected area more thoroughly than usual.
- Vacuum all floors, corners and rug edges.
- Wash tables, chairs and mats.
- Wash floors very well (do not use bleach).
- Temporarily remove area rugs for treatment.
- Steam clean rugs and furniture.
Organizing for bed bugs

• Infestation will require good organizing to isolate toys, books and items from bed bug areas.
• Discard unnecessary items to lower the clutter, especially boxes and paper.
• Store unused items in clear plastic bags or bins.
Cleaning for bed bugs

• Regular floor cleaning (vacuum and wash) will remove bed bugs from those areas.
• Extra cleaning of cribs, cots, bedding helps with inspection and removing bed bugs.
• Plush toys and soft items should go through a hot dryer (see the Bed Bug Free-Strategy)
Heat kills bed bugs!

• Many items can be placed into a hot dryer such as clothes, linens, pillows, shoes coats, plush toys, delicate and wool items.* see dryer protocol.

• Dryer on hot, 20 min.

• Don’t bother to wash items first.

• Dry heat kills all stages.
Using a dryer to heat items

- How do we know if the dryer is hot enough?
- Need 125 degrees, or slightly lower for more time.
- You will need:
  - Dryer of your choice
  - 3-4 dry towels
  - Meat thermometer
Dryer Test - Steps 1-3

- Place **dry** towels into dryer.
- Set on **hot** and **regular** cycle (not fluff or press)
- Let dryer run for 20 minutes.
Dryer Test - Steps 4-6

- After 20 min of drying, open dryer and place meat thermometer inside beneath a layer of towels.
- Close dryer and wait 2 minutes.
- Look at temperature reading.
- Over 125°F? You’re GOOD.
- Under? Choose another dryer.
Check lint filters for signs of bed bugs after heat treatment
Steam treatment

• Excellent choice for cribs and cots
• Great for rugs and carpet edges
• Steam **cooks and kills** the eggs!
• Can be done by facility managers.
• Must be done very slowly to reach high enough temperatures.
Wrap the steamer head to help develop heat.

Move the steam tip at a rate of one foot every ten seconds.
If a child has a bed bug on their clothes or bag…

- Do not panic! Collect it in a tissue and baggie. Do not crush it. Place in the freezer.
- If a bed bug was found on the child’s clothes treat as if they were soiled.
  - Change the child’s clothing into something clean.
  - Isolate the clothing in a clear plastic bag.
If a child has a bed bug on their clothes or bag...

• If a bed bug was found on the child’s diaper bag, isolate the bag in a clear plastic bag.
• Have extra diapers on hand for the child.
• Inspect or isolate the child’s coat and shoes.
If a child has a bed bug on their clothes or bag…

- If a dryer is available, run items through the dryer according to the Bed Bug-Free Strategy*.
- Contact the parents in a non-confrontational or judgmental way.
- Explain that a bed bug was found.
- Give them information on where to learn more, [www.nyc.gov/bedbugs](http://www.nyc.gov/bedbugs)
If a staff member has bed bugs at home

- Staff are responsible for not bringing bed bugs to work.
- They should also seek treatment for their infestation.
- Make sure every item worn and brought into work is bed bug-free.
If a staff member has bed bugs at home

• Isolate staff belongings to prevent possible spread at work.
Bed bug prevention

• Prevent bed bugs from entering the child care facility by:
  – Educating all staff and providing information to parents/guardians
  – Staff should use the “Bed Bug-Free Strategy”.
  – Parents/guardians should be required to follow it.
Cooperation is critical

- Introduction can lead to infestation.
- Managing bed bug introduction in child care settings requires cooperation of all involved.
- Administrators, care takers, maintenance staff and parents must work together.
Hiring a Pest Management Company

- Make sure the company is licensed and insured in your state.
- Technicians are skilled at working with bed bug infestations. Use references.
- The company uses IPM and acknowledges that child care settings are sensitive places.
- Company is skilled at low-risk pest management.
Communicate with parents

• Parents may become alarmed at the thought of bed bugs in their child care facility.
• Prepare staff for parental reactions.
• Prepare parents/guardians for the possibility of bed bugs using outreach materials.
• Disclose bed bugs immediately, as you would lice.
• Do not incite panic, disgust, or alarm.
The key to success

• Preventing bed bug infestation is the most effective way to protect your staff and children.
• Prevention measures are less costly than control.
• Use education to encourage prevention. Teach all parents, staff and custodians about bed bugs.
Take away messages

• Bed bugs are common in the US today.
• Bed bugs do not carry disease and can be eliminated.
• Pesticides are not the best approach and should not be used by child care staff.
• Cleaning is a very important tool.
• Proactive measures are best. Be prepared and educate to prevent.