

Cultural sensitivity and respect set the tone for successful IPM implementation in Portland, ME

At Riverton Park in Portland, Maine, Housing Inspector Jennifer Dick knows most residents by name. In a culturally diverse housing community of 141 two-story family townhouses, 628 residents represent 25 countries of origin and speak almost that many languages. Almost half (42%) are Somali immigrants.

In addition to those language and cultural challenges, many residents are living with physical or mental disabilities, including hoarding. Some have large numbers of family members sharing living space. Providing integrated pest management (IPM) information and recommendations to these families that had grown up in another setting is a challenge. Housekeeping practices in Somalia do not transfer well to Maine multifamily housing, and education on common pests in housing was lacking. In the summer of 2011, bed bug reports were registering a 5 in severity (on a 1-5 scale).

IPM Team Training

The housing authority team participated in the IPM in Multifamily Housing training provided by the Northeastern IPM Center in November 2011. Following the training, the IPM coordinator for Portland Housing Authority (PHA) received monthly support and consultation as she spearheaded their IPM implementation. "Attending the IPM training, and monthly communication with the experts there, has made a huge positive impact on my understanding of IPM. Being able to understand that the bed bug epidemic could be managed, and having that support, was critical to our success," said Dick. "Being able to try new methods with guidance and support played an essential role in our success. Utilizing the stoppest.org website was very useful, as was reading the blogs related to pest management."

Resident Education

After the staff and management team training, the focus was on resident education. "A great way to connect with residents is through resident council meetings. We also met with smaller groups of residents and arranged for an interpreter from the community when that was necessary. Sometimes the meetings were one-to-one with a family," said Dick. In addition, she said that those meetings were a great way to build relationships and let residents know that they were all working together. Since then, she said, resident cooperation has improved. "Our residents feel empowered," says Dick. "Meeting with residents and encouraging them to take part in our IPM

process has led to many positive improvements with our pest control issues. They now report leaks, holes and pests in their units, and residents actively participate in the inspection process.” As encouragement to attend the IPM resident training sessions, she offers an incentive such as a raffle for a \$25 gift card to a local grocery

store. The training was also provided when any new tenant moved in, and, said Dick, “piggybacking on annual inspections is another great way to meet people and share the information, since you already have a scheduled appointment.”

Working directly with residents, Dick was able to identify the common goal of keeping children healthy and safe. Using that approach, she was able to share pest management and housekeeping information without creating a confrontational atmosphere. “We were working together to fight a common enemy – the bugs!” she said. “That was much better than a more authoritative approach that might have made residents feel criticized and defensive.”

Education was the key, she said. “Teaching residents that pests have basic needs for food, water, and a place to hide. Helping them to “think like a bug” as it relates to food storage, housekeeping and trash removal has helped with pest management.”

Community Collaboration

One professional partnership that worked particularly well for resident education on IPM was with the Maine School Integrated Pest Management Program. Using expertise and materials from the Maine Department of Agriculture, Food and Rural Resources that were designed for children, Dick developed an after-school session for resident children to help identify signs of pests and how simple housekeeping strategies can help keep pests from setting up shop in their homes. “The kids didn’t realize that cockroaches ate people food,” said Dick. “Now they understand why it’s important to clean up after meals and snacks and keep food out of the bedrooms.”



*Once children learn that cockroaches eat people food, they understand why it’s important to clean up after meals. **Photo credit: Jennifer Dick***

Children Make Great Teachers

The children were given information to take home to their parents. As a result of that information sharing, four families called Dick to report that they had bed bugs. These four families all shared a unique dialect, so they spent a lot of time together, but they lived in different buildings. "It's possible that they were re-exposing each other to bed bugs with every visit," said Dick. By identifying the locations of these previously unknown bed bug infestations, housing authority staff and the PMP took action before the bugs were able to spread to adjacent units. They would not have

known about those cases without the important links made with the children at the afterschool program. "The children's IPM training was a huge success in terms of long-term educational benefits. The kids and I have built a better relationship." The children call Dick on behalf of their family members when they have questions or concerns. In addition, educating the children helped to eliminate the stigma around bed bugs, so now residents are more able to report any evidence of pests they find in their homes.

"Gaining a better understanding of insects and their basic needs has helped me to look at resident behaviors and lifestyle choices. Using both qualitative and quantitative research methods, I have begun collecting data based on family size, cultural backgrounds and mobility to better manage pest control within public housing," said Dick

A Proactive Approach

The success has been dramatic. PHA has shifted from a reactive to a proactive approach to bed bug control, ensuring that introductions are identified before they grow and spread. This spring, both canine and visual inspections were conducted in 200 units at a PHA-owned and operated high rise. Only one unit had live bed bugs.

Tips from Portland Housing Authority Executive Director Mark Adelson

- Hire a person to specialize in IPM and coordinate all pest control activities. Spreading it among existing busy staff is not effective.
- The IPM Coordinator needs to control the decision making about treatment, not the pest control company. They don't always have the agency's best interest in mind, and they can't build the individual relationships with the tenants.
- Stay open minded about what can work, and recognize the connection between a healthy pest free home and the life skills, housekeeping practices, and education of the residents.

Steaming and Inspection

One method that is working particularly well to prevent reinfestation is the steam program that Dick initiated with a local vendor during the winter of 2012. Several units are steamed on a bi-weekly or a once-a-month schedule. These units are

selected because of their history of infestation and/or special circumstances that increased their risk of infestation. "The steaming program allows us to visually inspect for all pests, steam clean all furniture, monitor reinfestations, document housekeeping and clutter, and have continuous communication with the residents, says Dick. "We also have begun using steam in combination with the HEPA vacuum for removing roaches and ants that are visible. Now that the bed bugs are being managed, PHA is focusing more on eliminating cockroaches."

Success Story

One success story was in a 5-bedroom unit with 12 people (3 adults and 9 children) living in it. This unit was severely infested with bed bugs. Because it had been heat treated several times, a large portion of the floor tiles were damaged, providing the bed bugs with new cracks and

crevices to hide in. This family was at risk of re-infestation daily because of the number of people living in their home and their mobility (school, sports, employment, public transportation) and receiving used goods such as donations of clothing, blankets, rugs and curtains. Fortunately, this family was offered a transfer based on their need for a larger unit, giving the housing authority the perfect opportunity to use IPM practices.

Jennifer Dick first worked closely with maintenance staff to seal up any cracks and crevices in the new unit. They took off all heat registers and sealed up all the pipe chases and cracks and crevices within the unit. Then she worked closely with the family to de-clutter. The PHA paid a local cleaning company to wash over 100 loads of laundry, sealing each bag after it was dried. These bags were then delivered to the new unit. All of the furniture was steam cleaned and new mattress encasements were placed on all 12 beds. She then worked with the PMP to have the furniture moved in a large truck known as the "bug baker," in which the furniture was heated up 150 degrees for four hours. It was then delivered to the new unit. Each family member was given a clean set of clothing to change into and their dirty clothing was then washed and dried. The whole family received intense bed bug education, including how to inspect for bed bugs (each child received a flashlight) and what to do if one is seen.

Since then, the family has worked very hard to manage pests. Monitors are in place and they use four large totes at their front door to store all backpacks (no one is allowed to take jackets or backpacks to their room). The family changes their sheets weekly, they vacuum their tiled floors and furniture several times a week and they work closely with both Dick and the cleaning company chosen by PHA. They received bi-weekly steaming of all beds and furniture and after several weeks they were moved to monthly steaming. This visit allows for regular inspection for reinfestation.

As a result of this process, the family has been "bed bug free" for several months. "I consider this family to be a huge success not only because they are currently without bed bugs but because they are educated, know what to look for and how to manage their pest control issues using the least harmful solutions. Using IPM has provided this family with a better quality of life," says Dick.

She also has some advice for others interested in implementing IPM in affordable housing:

"Be creative about reaching your residents; get to know them. Any treatment options must be specific to the level of infestation as well as the tenants' lifestyle, including cultural practices and daily routines. Do your best to collaborate with the residents' community support providers. If there are language barriers, bring in interpreters or try using pictures to illustrate IPM. Work as a team, and empower your residents to take pride in their homes. Remember to be patient. These insects are not going to go away over night."

From a project-wide perspective, she says, "Look at your most difficult units first. Start out with a small sample of between 5 and 7 units. Focus on those units and their current pest control issues. Start with education, then sealing up the unit, working on any maintenance issues. Then move onto housekeeping/clutter, then specifics (e.g. for roaches, look at food storage/bottle redemption; for bed bugs, look at monitoring devices), and lastly, document and monitor."

"Each tenant is different," says Dick. "Maybe it's culture, religion, disability, or something else. Whatever it is, start from neutral ground with no judgments. Remember that you are working together for safe and healthy housing."

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Integrated Pest Management (IPM) is an effective and environmentally sensitive approach to pest management that relies on a combination of common-sense practices. IPM programs use current, comprehensive information on the life cycles of pests and their interaction with the environment. This information, in combination with available pest control methods, is used to manage pest damage by the most economical means, and with the least possible hazard to people, property, and the environment. (EPA)

For more information and resources visit; www.stoppests.org