

## Pests Persist in Federally Subsidized Housing

*Cockroaches and rodents are persistent problems in some federally-subsidized housing. The problem is not uniform. Some public housing authorities have few problems. Others have serious problems. Public housing authorities need an integrated pest management program to reduce pests and keep pest problems away.*

**M**ore than half of public housing residents surveyed by the U.S. Department of Housing and Urban Development (HUD) in 2004 reported problems with rodents and insects indoors. Almost 10% said rodents and insects indoors were always a problem.<sup>1</sup> HUD asked 446,884 public housing and multi-family project-based Section 8 housing residents “How often, if at all, are any of the following a problem in your property: rodents and insects (indoors)?” More than 34% responded. They said:

- Never 48.16%
- Sometimes 35.07%
- Most of the time 7.34%
- Always 9.42%

Despite the pervasiveness of the problem, insect infestation was #24 in the top 25 of physical problems cited by HUD.<sup>2</sup> Fourteen of the other top 25 problems including four of the top 5 could contribute to insect infestations.

The problems can be much worse for some public housing authorities, based on a recent study in Gary Housing Authority in Gary, IN funded by HUD’s Office of Healthy Homes and Lead Hazard Control. In 2006, Purdue University researchers, Wang, El-Nour, and Bennett, inspected units and interviewed residents in 358 randomly selected apartments.<sup>3</sup> 42% of the apartments had a resident reported they had doctor-diagnosed asthma.

Based on interviews and visual inspection at Gary Housing Authority, the researchers found:

- 71% of the units infested by cockroaches, mice, ants, spiders, or flies
- 49% of units infested by the German cockroach (primarily in the kitchen)
- 36% of units infested by mice (mice infestation was associated with existence of diagnosed asthma)
- 26% of units infested by the Oriental cockroach
- 21% of units infested by ants.



### Why Cockroaches?

Live cockroaches, as well as their remains and feces, cause asthma attacks in people sensitive to cockroach allergens according to a 2000 Institute of Medicine Report. The Inner City Asthma Study found that more than 60% of inner city children were sensitive to cockroach allergens. Asthma is a costly disease that disrupts a family and undermines a child’s ability to learn.

This case study is one of a series addressing integrated pest management (IPM) in low income housing. To access the series, visit [www.healthyhomestraining.org/ipm/studies.htm](http://www.healthyhomestraining.org/ipm/studies.htm).

IPM is a commonsense approach to pest management to keep pests out, reduce their harborage, food and water, and, where necessary, use low risk pesticides.

<sup>1</sup> Real Estate Assessment Center, U.S. Department of Housing and Urban Development, *How the RASS Survey Measures Up*, (2006). See page 10 at [www.hud.gov/offices/reac/products/rass/PDFs/survey.pdf](http://www.hud.gov/offices/reac/products/rass/PDFs/survey.pdf). For more information on the Customer Satisfaction Survey, go to [www.hud.gov/offices/reac/products/prodrass.cfm](http://www.hud.gov/offices/reac/products/prodrass.cfm).

<sup>2</sup> Real Estate Assessment Center, U.S. Department of Housing and Urban Development, *Uniform Physical Condition Standards (UPCS) – Most Frequently Cited Deficiencies*, (2006). See or [www.hud.gov/offices/reac/products/pass/2005-8-31\\_upcs\\_deficiency\\_list.xls](http://www.hud.gov/offices/reac/products/pass/2005-8-31_upcs_deficiency_list.xls). The information is based on 44,000 inspections (14,000 public housing and 30,000 project-based, Section 8 property from mid-2000 to September 2006). For more information on the Physical Assessment Subsystem, go to [www.hud.gov/offices/reac/products/prodpass.cfm](http://www.hud.gov/offices/reac/products/prodpass.cfm)

<sup>3</sup> Wang, C., Abou El-Nour, M., Bennett, G, *Survey Of Pest Infestation, Asthma, And Allergy In Low-Income Housing*, publication scheduled for 2007.

These rates confirmed previous studies in 2002 to 2004.

Unfortunately, Gary Housing Authority residents did not always report the problem despite getting free pest control service upon request. In one complex, only 22% of the residents (35 of 159 cockroach-infested units) reported the problem to management. 41% of residents considered the pest control services to be fair or poor.

Despite the low reporting levels, researchers found that 72% of the Gary Housing Authority units had evidence of pesticide use to control cockroaches including:

- 67% of units had cockroach bait residue
- 10% of units had cockroach bait stations
- 6% of units had pesticide dust residue (including boric acid).

But the pesticides were not always fresh or properly used. Clearly residents took matters into their own hands.

- 80% reported using cockroach controls methods. The most common cockroach control was baits but included surface sprays and space sprays (insect bombs).
- 58% tried to control mice.

Despite their heavy reliance on pesticides and the poor results, Gary Housing Authority residents knew more was needed.

- 68% of residents identified the need for home repairs to control pests.
- 51% of resident saw need for more frequent inspection or treatment (26% of residents received treatment at least monthly whether they did it on their own or by a professional).
- 18% of residents suggested cleaning up inside and outside of apartments (60% had trash or food residue on floor or counter).
- 10% of residents suggested servicing the whole building rather than selected individual units.

The researchers analyzed dust samples in 101 of the apartments in Gary Housing Authority. They found cockroach allergens (Bla g 1) in 98% of the kitchen dust samples. Monitoring traps captured cockroaches in 85% of the units. One-third of the dust samples had critical levels of cockroach allergens ( $\geq 8$  U/g of Bla g 1). At these levels, residents are likely to have an allergic reaction in susceptible people.



## For More Information

### On Case Study

Tom Neltner  
National Center for Healthy Housing  
10320 Little Patuxent Parkway, Suite 500  
Columbia, MD 21044  
443.539.4160 / Fax: 443.539.4150  
tneltner@nchh.org

### On Series

Kathy Seikel  
U.S. Environmental Protection Agency  
Mail Code 7511C, 1200 Penn. Ave., N.W.  
Washington, DC 20460  
703.308.8272 / Fax 703.305.5558  
Seikel.Kathy@epamail.epa.gov



This case study was prepared by the National Center for Healthy Housing through a contract with U.S. Environmental Protection Agency's Office of Pesticide Programs and Battelle.