

## PEST CONDITIONS IN AFFORDABLE HOUSING

# Rodents and Insects Reported in More Than 50% of Public Housing and Housing Choice Voucher Housing

*Cockroaches and rodents are persistent problems in federally-subsidized housing. The problem is not uniform. Some public housing authorities have few problems. Others have serious problems. An integrated pest management program would help all public housing authorities especially those with serious problems.*

**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 that the 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. 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 with asthma. 71% of residents said they had pests.

Based on a physical inspection at Gary Housing Authority, the researchers found:

- 81% of 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



### 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. There is growing evidence that mice may have a similar effect.

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

<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.

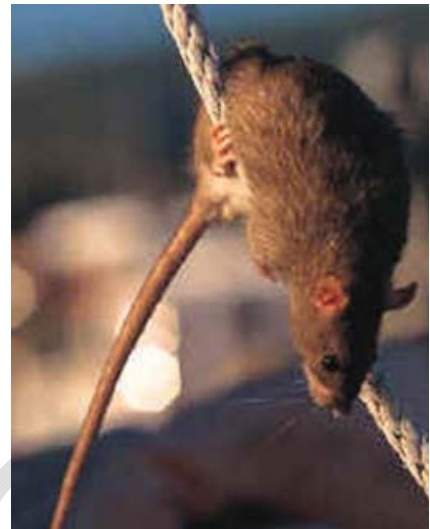
- 21% of units infested by ants.

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 pesticides 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 that 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 (less than 26% treatment at least monthly).
- 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. Traps captured cockroaches in 85% of the units. One-third of the samples had critical levels of cockroach allergens ( $\geq 8$  U/g of Bla g 1).

## For More Information

### On Case Study

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