



# Pests and Pesticides in New York City

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Policy





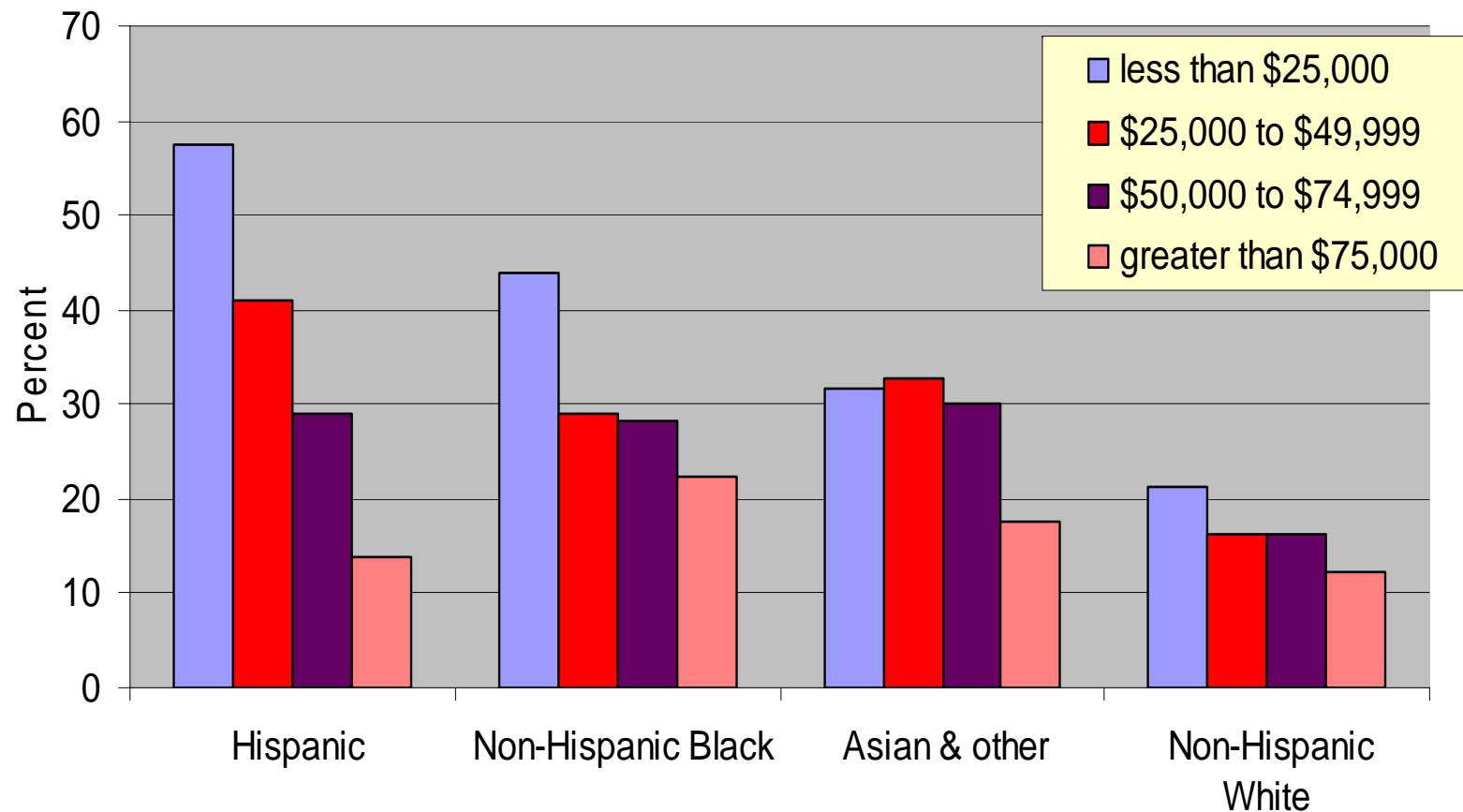
# Sources of Data in this Presentation

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- Community Health Survey (CHS)
  - DOHMH random digit dial survey (n ≈ 10,000)
  - 2003: Cockroaches, personal pesticide use, and asthma
  - 2004: Interior and exterior rodents, and asthma
- NYC Housing and Vacancy Survey (HVS)
  - US Census, NYC Housing Preservation & Development (n ≈ 15,000)
  - 2002: Interior rodents, building disrepair, and asthma
  - 2005: Interior rodents, building disrepair
- New York State Pesticide Sales and Use Registry
  - Commercial pesticide use
- NYS Planning and Research Cooperative System (SPARCS)
  - Hospitalizations
- NYC Poison Control Center ToxiCall Data
  - Unintentional exposures

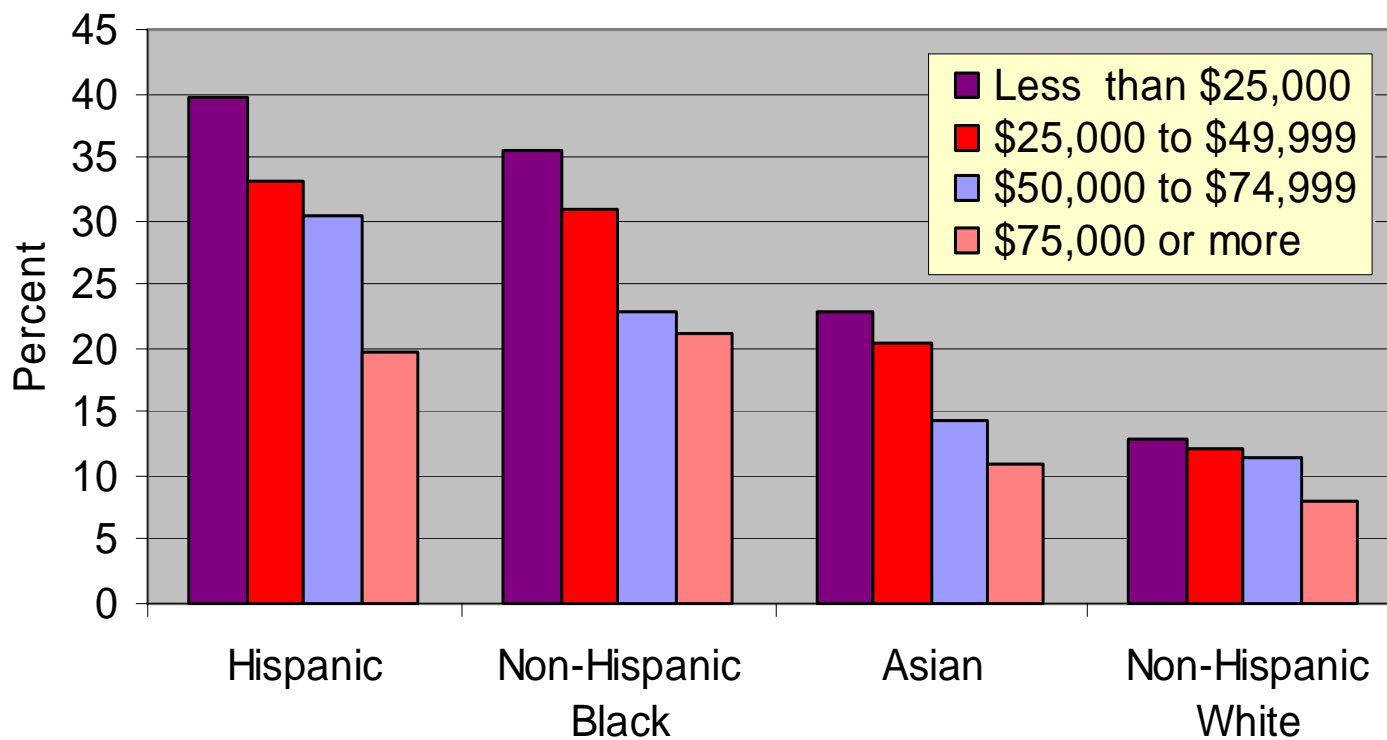
# We have cockroaches!

NYC Households Reporting Cockroaches by Income and Race/Ethnicity



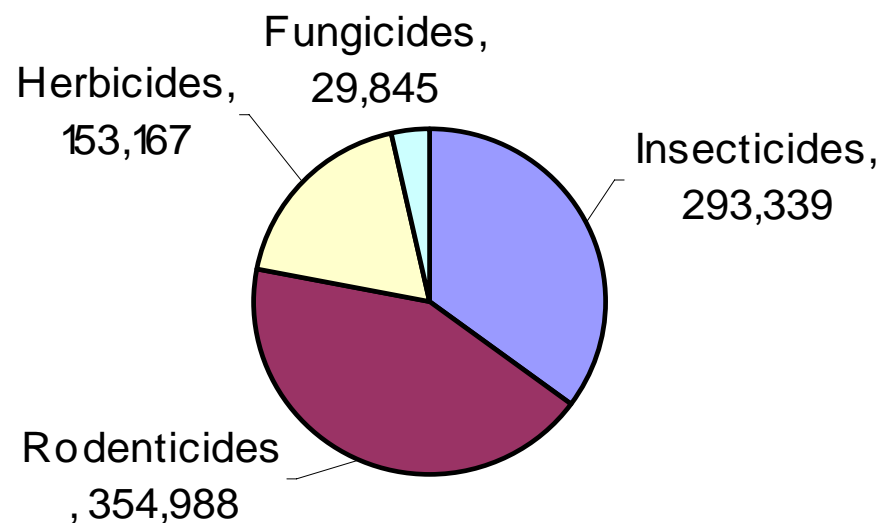
# ... and rodents in NYC residential buildings

NYC Households Reporting Rodents by Race/Ethnicity and Income



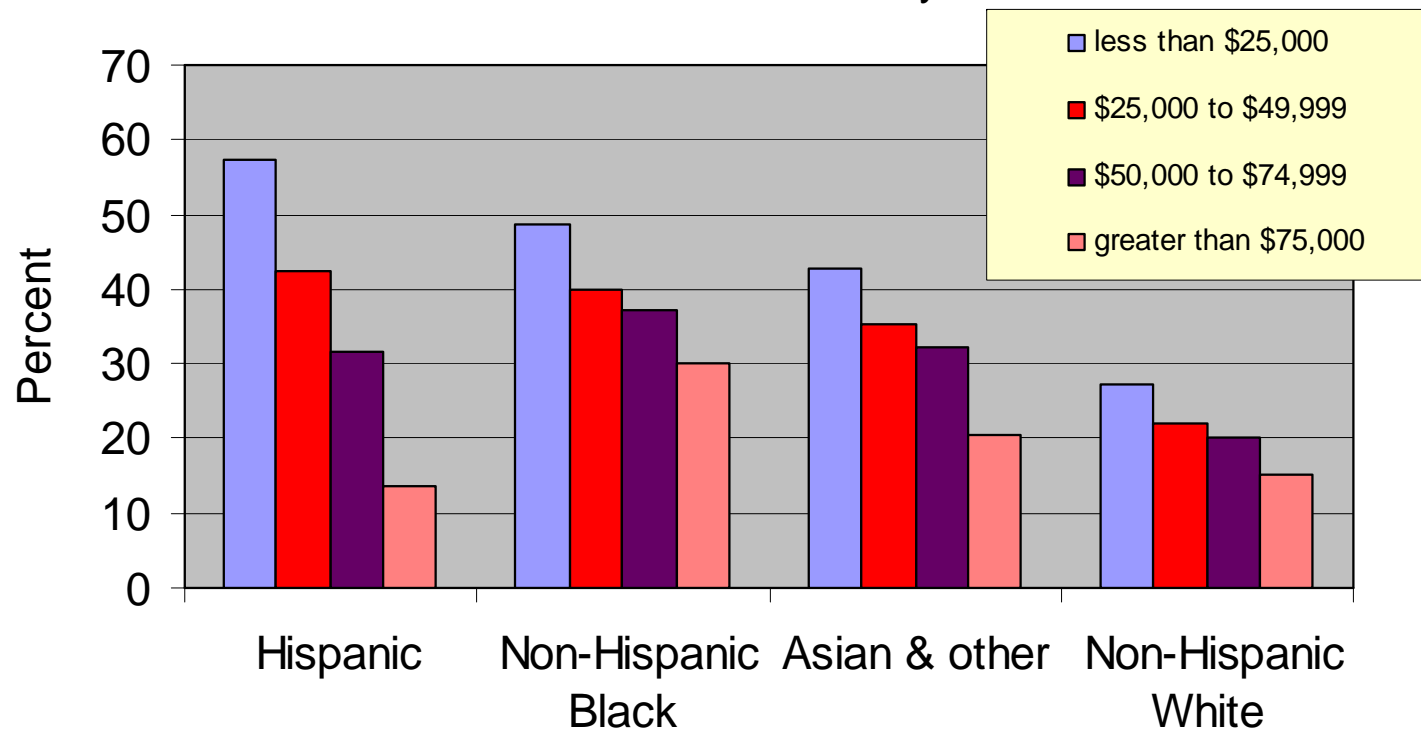
# Commercial pesticide use is common in NYC

## Solid Products by Weight in Pounds



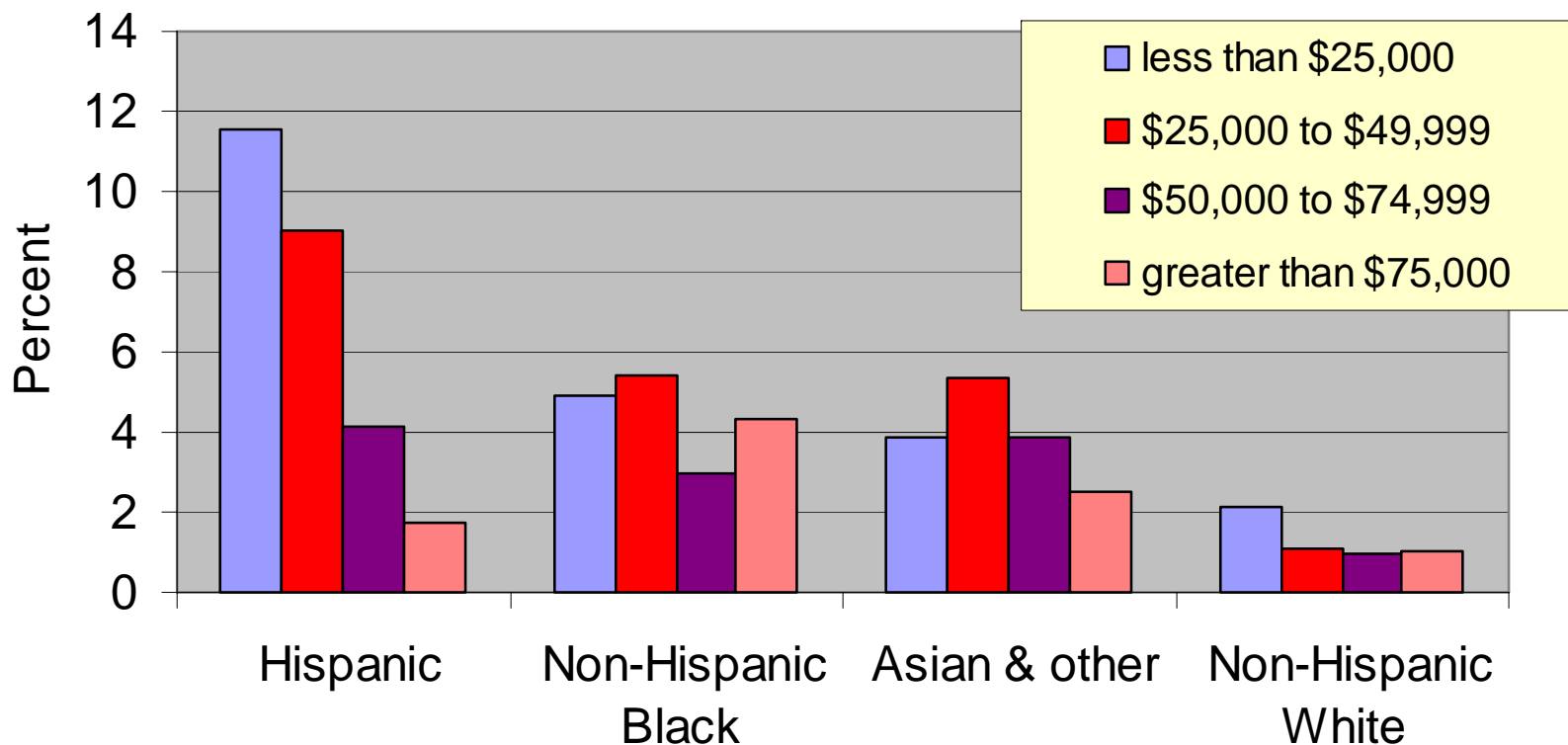
# And so is use of off-the-shelf products by residents

NYC Households Using Sprays, Bombs or Foggers by Income and Race/Ethnicity

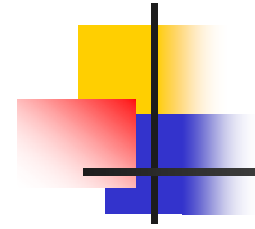


# Many New Yorkers resort to the use of illegal pesticides

NYC Households Using Tempo to Control Cockroaches by Income and Race/Ethnicity

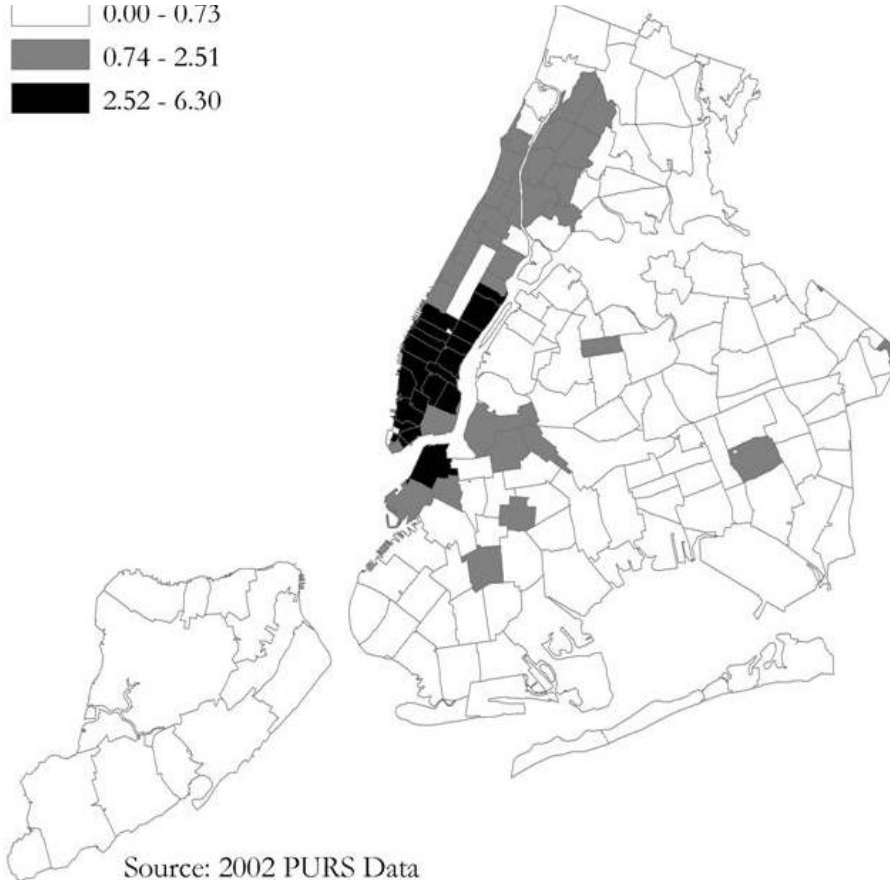


# Rodents in residences are most prevalent in areas where commercial rodenticide use is low.



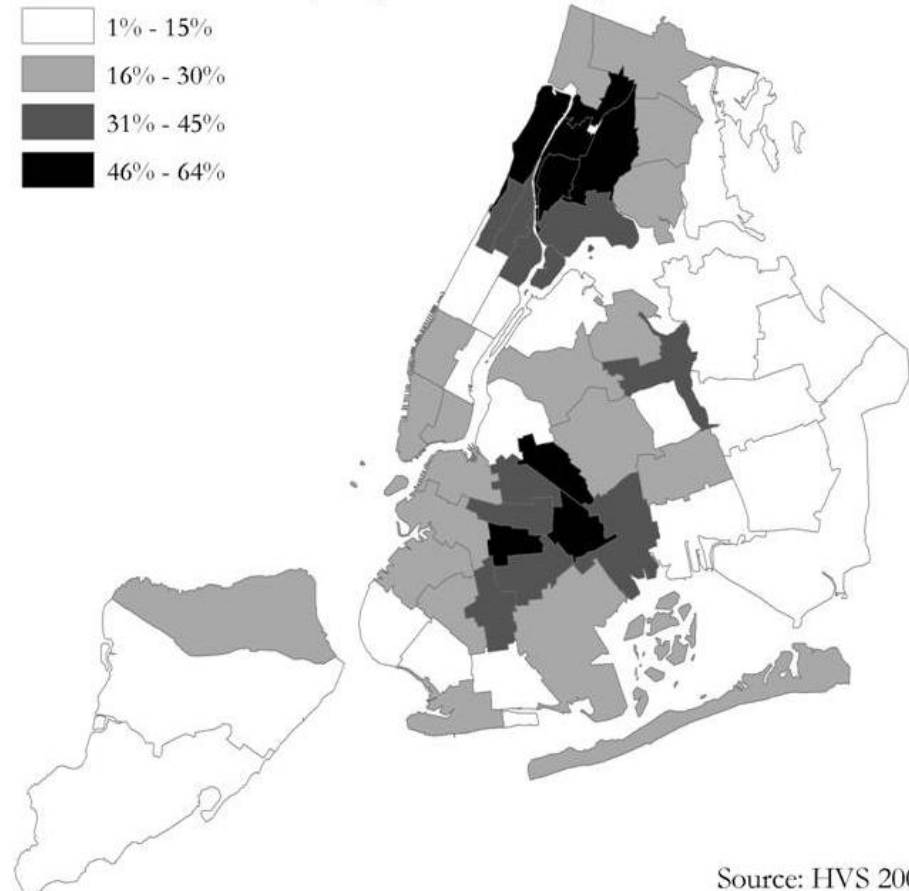
Lbs Rodenticide per 1,000 m<sup>2</sup>

- 0.00 - 0.73
- 0.74 - 2.51
- 2.52 - 6.30



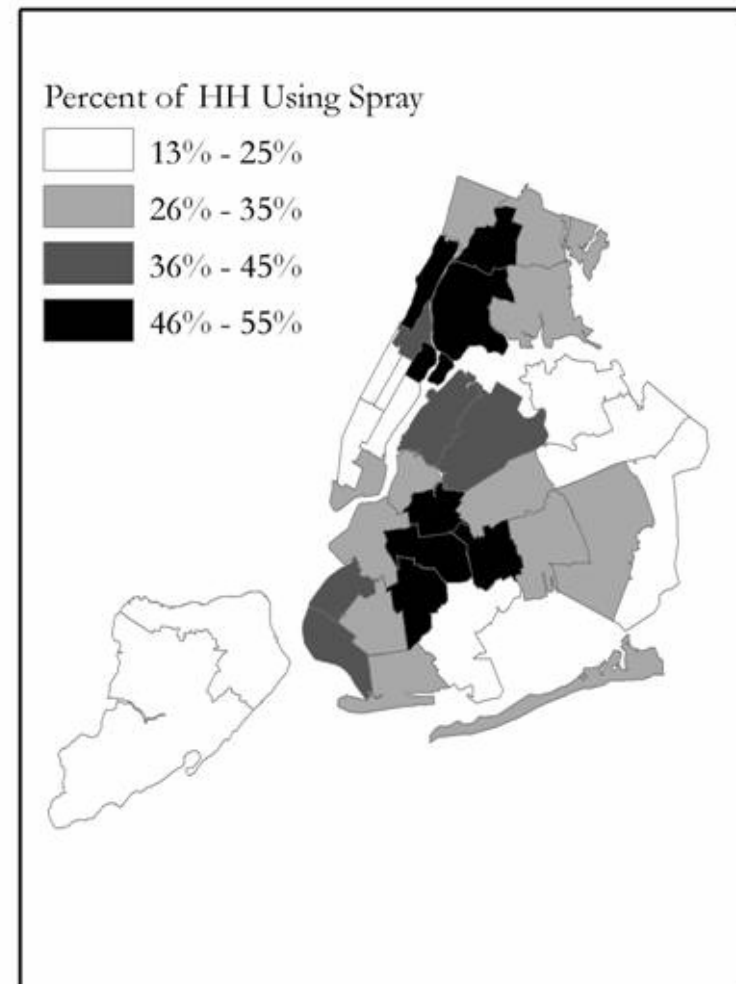
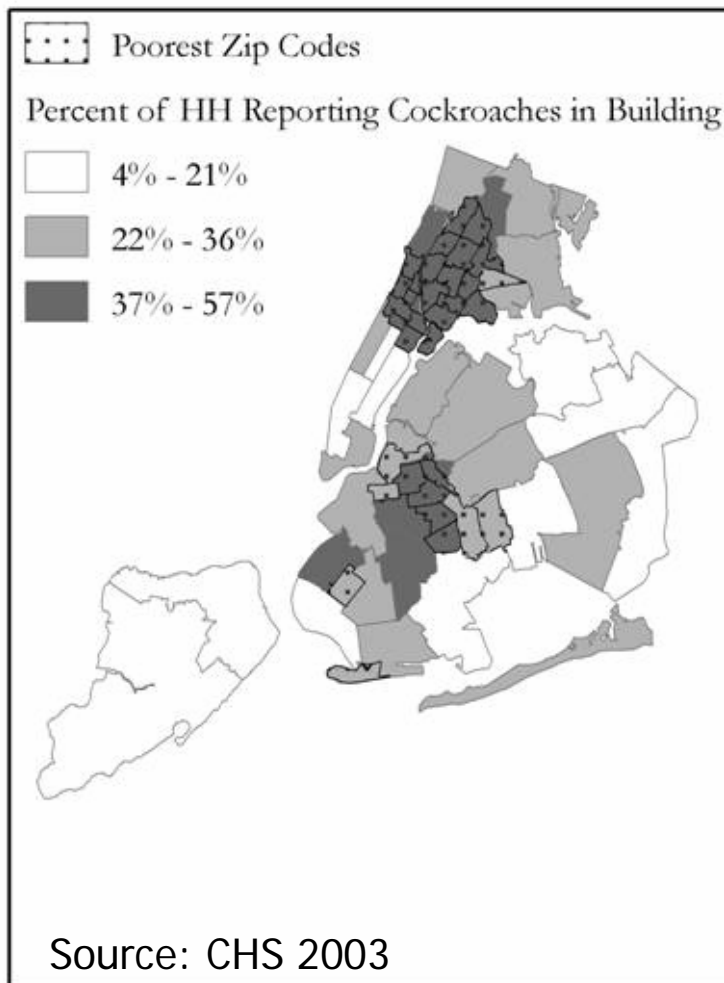
% Households with rodents

- 1% - 15%
- 16% - 30%
- 31% - 45%
- 46% - 64%

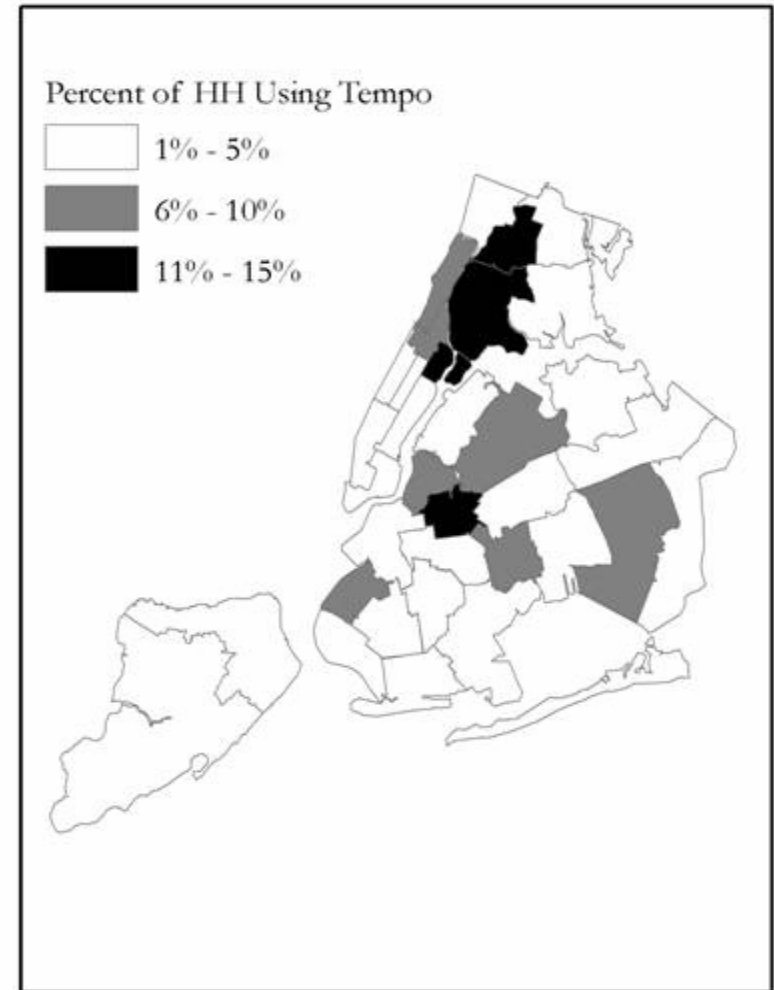
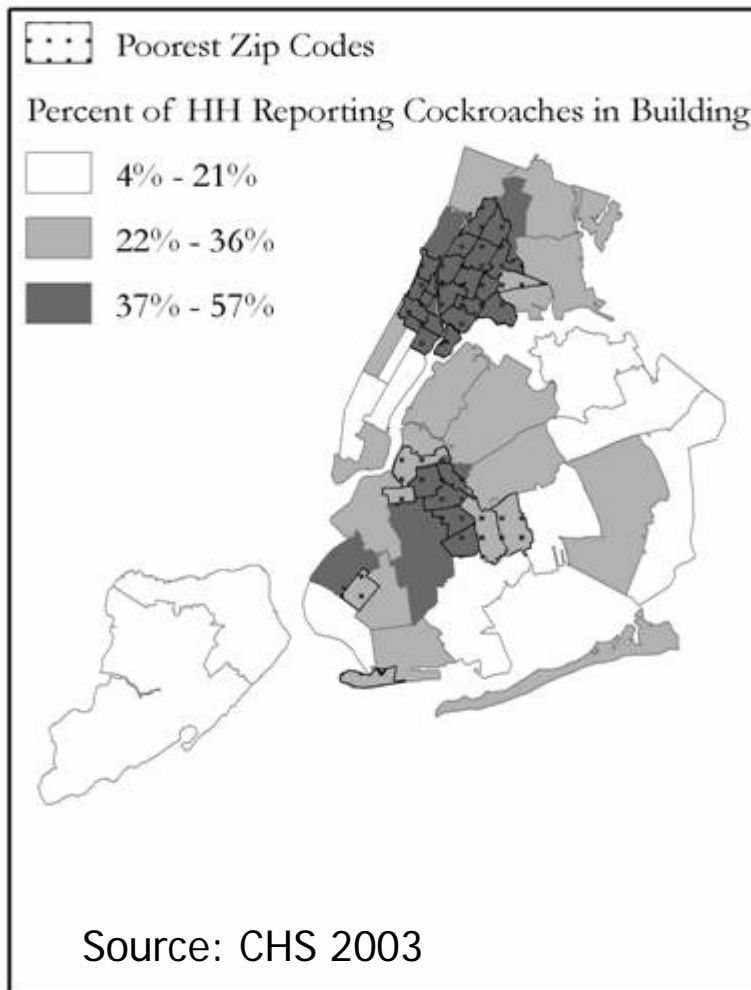




# Cockroaches are most prevalent where household use of sprays/bombs/foggers is highest



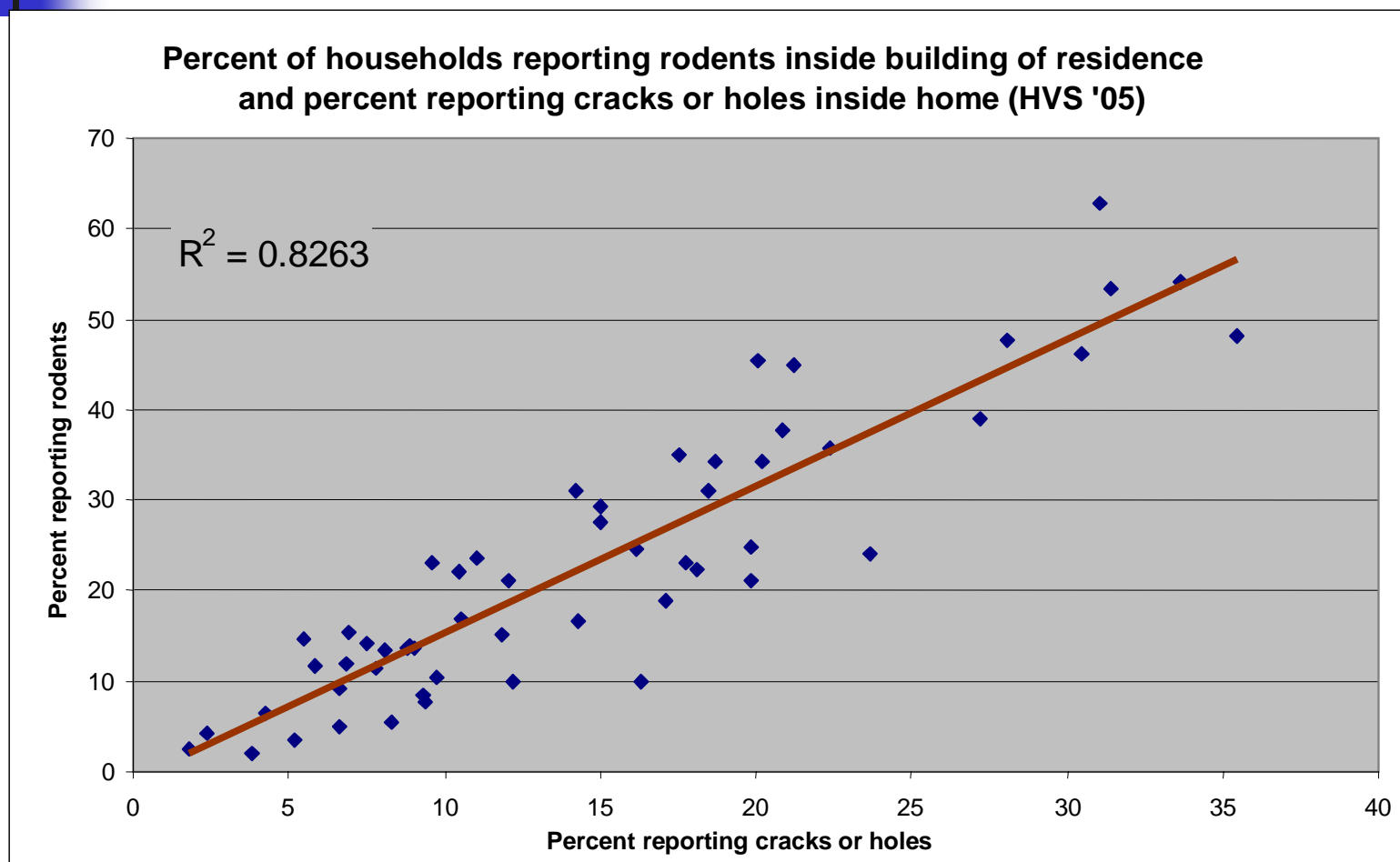
# Household tempo use (off-the-street) is greatest where cockroaches are most prevalent



But pests are best predicted by the condition of homes, not the use or nonuse of pesticides.

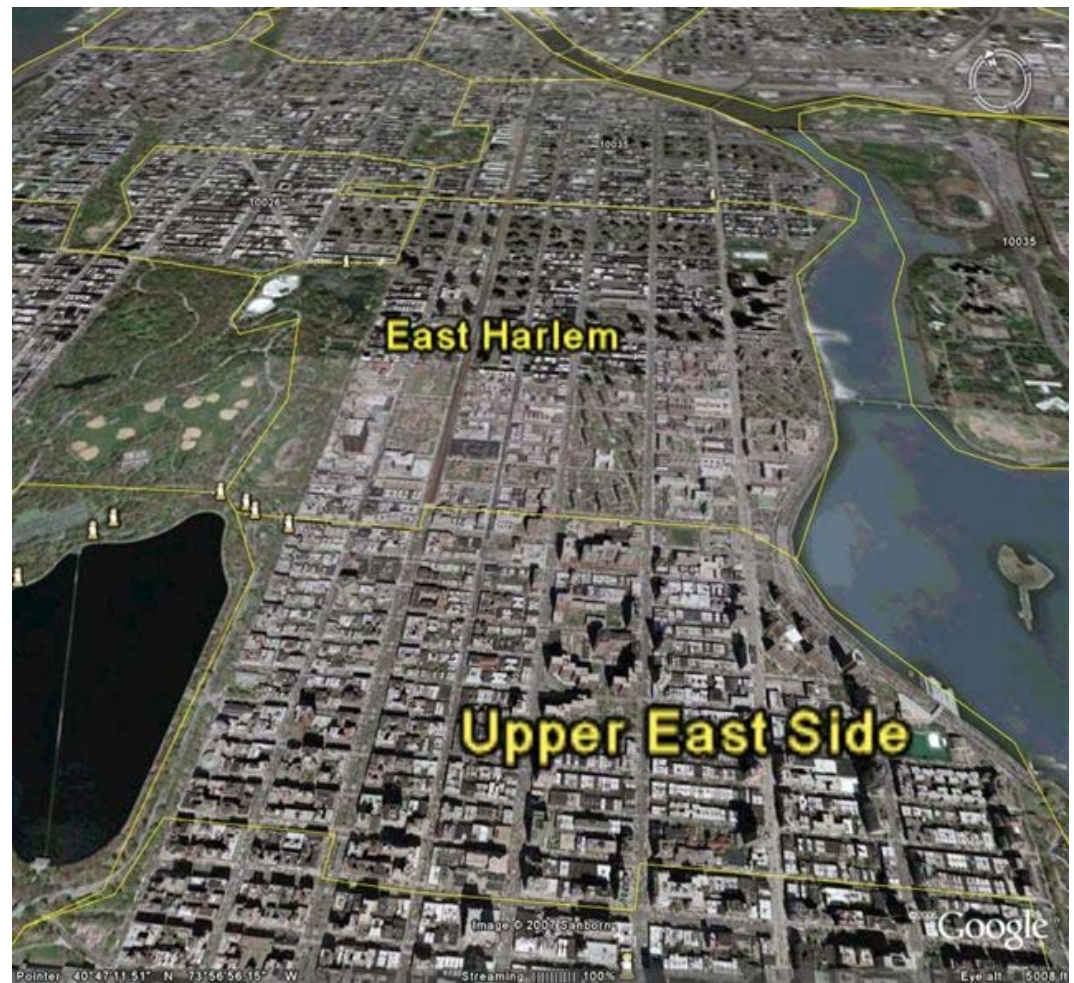
Housing characteristic		% with rodents
Cracks/holes in interior	Yes	37.6
	No	7.7
Interior leaks in past year	Yes	35.8
	No	13.1

# Neighborhood as well as household level conditions predict infestation



# A tale of two Manhattan neighborhoods

- East Harlem
- Upper East Side



	East Harlem	Upper East Side
Percent children (0-14) with asthma	25%	8%
Percent households with cockroaches	54%	12%
People reporting rodents in home	33%	12%
People reporting rodents on street of residence	55%	26%
Percent of households living under 2 times poverty level	61%	12%
Percent Black (non-Hispanic)	33%	2%
Percent Hispanic	55%	6%
Percent owning own home	10%	34%
Median age of building	1958	1948
Percent of households reporting cracks and holes in home	18%	12%
Percent of households reporting leaks	12%	12%
Percent of households receiving exterminator services	70%	78%
Pounds of rodenticide per acre applied commercially	4.8	14.5
Pounds of insecticide per acre applied commercially	1.5	8.0
Pounds of pyrethroids per acre applied commercially	0.3	1.8
Percent of households using sprays bombs or foggers	54%	15%
Percent of households using Tempo	15%	2%



# Pesticide-Related Hospitalizations

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- Between 2000 and 2003, in New York City:
  - 137 people hospitalized for unintentional pesticide exposures
  - 47% paid by Medicaid
  - 60% due to insecticides, 33% to rodenticides
  - 24% under the age of 5 years.
  - >\$3 million in costs.



# Unintentional pesticide exposures

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- In 2004, NYC Poison Control Center reported:
  - 1,335 exposures
    - 50% to children 0-5 years
    - 93% occurred in own home
    - 50% from insecticides
    - 34% from rodenticides





# The urban context for pesticide use

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- In cities with majority renters, and majority multi-unit dwellings, decisions about pest control and pesticide use are generally being made by others.
- Many conditions of housing that are conducive to pests are not within the control of tenants.



# What we conclude about pests and pesticides in an urban area

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- While higher income neighborhoods get professional pest managers, low income neighborhoods get exterminators.
- Cheap general use pesticides with poor efficacy are products of first, only and continuous resort to too many.
- Savings to landlords are shifted as costs to tenants in the form of purchase of pesticide products and asthma symptoms, and to healthcare payers for managing asthma exacerbations and the consequences of pesticide exposures.
- The supply of licensed applicators is probably too great in NYC and other urban areas.
  - Race to the bottom in price and quality
  - Poor quality pest control is too cheap
  - Professional identity wrapped up in pesticide use



# How NYC is responding to State and federal regulatory constraints

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- Surveillance of pests and pesticide use
- Attempting to address both supply and demand for safer and more effective pest control
  - Supply
    - Providing seed funding to private pest control companies to carry out and promote IPM in low-income neighborhoods
    - Experimenting with NYC Housing Authority on IPM practices
    - Providing training to licensed applicators on IPM
    - Leading by example with municipal pesticide use reduction and IPM planning (Local Law 37)
  - Demand
    - Landlord, coop board outreach
    - Beefing up health code to define and require pest management, without running afoul of state preemption
    - Public education in low-income communities on safer and better pest management

# Outreach and Education

## HEALTH HOMES

### Pests

**Pests - including roaches and mice - are a leading cause of asthma triggers in the home. Homes with pests may also be unhealthy. Use safer products in the home.**

#### Things You Can Do

##### Deny pests food and water

- Keep your home clean and dry.
- Store food in sealed containers.
- Fix leaks and dripping faucets quickly.
- Wash and dry dishes after each use.
- Empty your kitchen garbage every day.

##### Deny pests entry and shelter

- Use caulk and plaster to seal holes in walls, floors, and ceilings.
- Reduce clutter, cardboard and newspapers.

**Use safer products: avoid foggers, bombs and sprays. Never use products called "Tempo", "Tres Pasitos"**

A report from the New York City Department of Health and Mental Hygiene



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nyc.gov/health

New York City Department of Health and Mental Hygiene

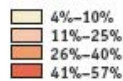
### Pests Can Be Controlled

**M**any Yorkers live with or near cockroaches, rodents, and other pests. Insects and rodents in the home contribute to illness and reduce the quality of life. For example, people with asthma who live in infested homes are more likely to have an asthma attack. And, many people with pests in their homes overuse hazardous pesticides that can cause poisonings and other health problems.

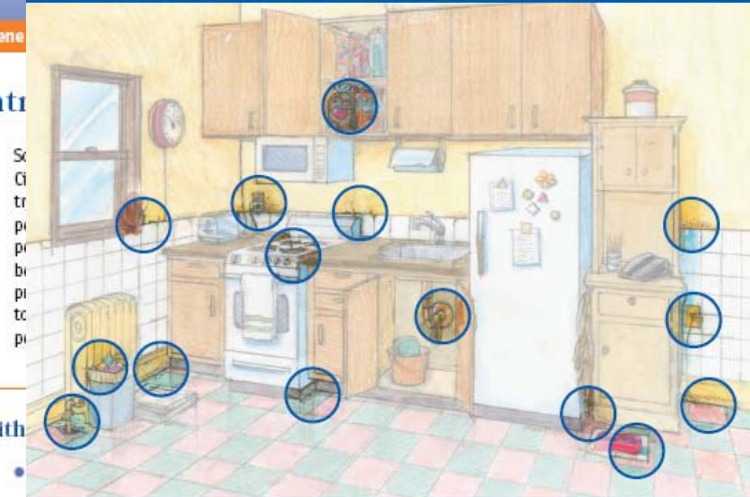
#### Too many New Yorkers live with

- Adults in nearly 30% of households (880,000 households) report having cockroaches in their home, and nearly 25% (680,000 households) report seeing mice or rats, or signs of mice or rats, in their home or residential building.

Percent households with cockroaches



## How to Control Pests Safely



### Getting Rid of Roaches and Mice



**A Healthy Homes Guide**



THE NEW YORK CITY  
DEPARTMENT OF HEALTH  
AND MENTAL HYGIENE





# But more is needed from federal and State regulators

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- Higher prevalence of pests and pesticides in Hispanic households demonstrates need for:
  - General use product labeling in Spanish
  - Enforcement to prevent importation, sale and repackaging of illegal products
- Reconsideration of registrations
  - NYC applauds EPA's proposed rodenticide restrictions.
  - Insecticide bombs/foggers should be kept off store shelves, regardless of active ingredients

# Foggers have no place in urban residences or businesses

## Roach Bomb Sets Off Blast

By THE ASSOCIATED PRESS  
Published: June 25, 2006

An explosion  
when a stove  
Fire Departm

Firefighters w  
Street, in Sun  
control within  
Center with r

Posted: Monday, 28 August 2006 11:44AM

### **FDNY: Roach Bomb Blew Out Windows**

**NEW YORK** -- The New York City Fire Department says a roach bomb exploded in an apartment in Astoria, Queens, blowing out windows and buckling a common wall between two apartments.

There were no injuries.

The explosion occurred in a four-story building at 31-11 Crescent Street. The fire department said it caused a wall to buckle between apartments 2D and 3D, and blew out some windows this morning.



# Thanks and further encouragement to EPA and other federal agencies

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- NYC's efforts around safer pest control began with small funding from Region II office to launch pilot in NYC public housing.
- CDC seed funding for rodent academy began intensive reconsideration of NYC's approach to rodent control.
- EPA, CDC and HUD should strive to provide seed funding to local health departments in all large U.S. cities.



# Acknowledgements

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Jessica Leighton, Ph.D., Deputy Commissioner  
Wendy McKelvey, Ph.D., Senior Epidemiologist  
Thomas R. Frieden, M.D., M.P.H., Commissioner  
Audrey Thier, M.S., Consultant  
James Jacobson, M.P.H., Research Scientist  
Caroline Bragdon, M.P.H., Research Scientist  
Sarah Johnson, M.S., M.P.H., Spatial Analyst  
Edgar Butts, Ph.D., Assistant Commissioner  
Marta Hernandez, M.P.H., Public Health Educator  
Lorna Davis, M.S., Director, NYC Asthma Initiative