

Reducing Rodents via Energy Efficiency



Green City

Built Environment

Issue: Urban Rodents

Rodents, such as mice and rats, are widespread across cities globally and pose risks that include spreading disease, spoiling food, and damaging infrastructure.

- As urbanization increases globally, rodent populations will likely increase
- Loss of green spaces in cities limits habitat for predators that prey on urban rodents
- Using poison to eradicate rodents is ineffective and harmful to humans and other wildlife
- Old and inefficient housing provides rodents with hiding spaces to stay warm during winter months.
- To protect public health, cities need solutions to control and limit rodent populations.

**Improving the energy efficiency
of homes creates healthier
and more sustainable
neighborhoods, by limiting
rodent populations and reducing
energy consumption**

Energy Efficiency Upgrades: A Unique Solution to Rodents

The science shows that improving the energy efficiency of homes is an effective way to reduce urban rodent populations. These actions, which reduce opportunities for rodent entry and residence in homes, include:

- Installing wall and roof insulation
- Installing screen covers on heating, cooling and ventilation pipes
- Replacing broken doors and windows
- Repairing holes in walls, siding and roofs.

These actions **lower heating and cooling costs, reduce power consumption and keep rodents outside of homes.**

Key Takeaways

- Retrofitting homes for energy efficiency reduces the prevalence of rodents
- Results will be more successful if paired with changes to sanitation policy.

IN A NUTSHELL

- Energy inefficient buildings allow rodents and other pests to easily enter and reside
- Low-income residents are most at risk as they disproportionately live in dilapidated housing
- Preserving green space for urban predators helps manage rodent populations
- Cities should enact energy efficiency housing policy to reduce rodent activity, lower GHG emissions and improve public health.

WHAT CAN YOUR CITY DO?

WORK with federal agencies and energy companies to evaluate the energy efficiency of buildings

CREATE new housing codes that require a minimum energy efficiency score

ENGAGE residents in identifying where and why rodents are an issue

ESTABLISH active communication between city departments including pest control, stormwater management and public health

RESTORE blighted homes and protect neighborhood greenspace



To find out more information on this case study, contact **Gabriel Gadsden** at gabriel.gadsden@yale.edu. This research was supported by a Hixon Fellowship.