

Rodent Control Program Assessment: New York City Department of Health and Mental Hygiene

July 2015

Introduction

Norway rats first came to New York City in the 18th century, and as the city's population grew, so did the rodent population. The city harbors one of the largest rat populations in the United States. In New York, rodent control is conducted by the Office of Pest Control of the Bureau of Veterinary and Pest Control Services within the Division of Environmental Health at the New York City Department of Health and Mental Hygiene (NYC DOHMH).

NYC DOHMH has conducted rodent control activities for over 100 years. Rodent control activities are funded by local support. The funding for rodent control has decreased within the past five years, resulting in staffing cuts to the program. However, as a result of a successful pilot program, the Rodent Reservoir Analysis (described below), the city has proposed to increase funding by \$2.9 million, supporting 50 additional staff, including sanitation staff, exterminators, and a rodent biologist. The total staffing of the program is 170.

Rodent Control Activities

As part of the program's rodent control activities, the Office of Pest Control is both a proactive and complaint-based program. Program inspectors perform "rodent indexing," which is block-by-block inspection of properties in a targeted area to look for active rodent signs, provide education, and enforce rat control measures. The Office of Pest Control references historical data and trends when performing rodent control activities, such as rodent indexing, in New York.

The program conducts about 100,000 initial inspections. The program receives rodent complaints via the city's 311 line, and complaints are scheduled for inspection and analysis. The program received approximately 2,000 complaints per month in 2014, which varied by season. Rodent complaints represented about 40% of the complaints directed to NYC DOHMH. The program follows integrated pest management (IPM) principles to monitor and respond to rodent activity efficiently and safely. The emphasis is first placed upon eliminating rodent food sources. Then the program emphasizes pest exclusion of sidewalks, foundations, stoops, or earthen space used by the rodents. Last, the program installs rodenticide bait or trap stations.



Photo: <http://www.freeimages.com/photo/1438278>

The most common rodent-related issues include rat infestations on the exterior of properties and mice or rats inside of buildings. Beginning in October 2014, the Rodent Reservoir Analysis identified and studied "rat reservoirs" in such neighborhoods as the East Village and East Harlem in Manhattan and Bronx's Grand Concourse. Inspectors set bait for the rats, closed burrows, flushed sewers, and worked with the neighboring community on best practices, such as better trash management programs, to avoid attracting rodents in the future. The city, which produces approximately 14 million tons of garbage annually, used to require actual garbage cans, but switched to plastic bags for convenience in the 1960s. Based on reports, the program has led to an 80% to 90% reduction in rodent sightings in the neighborhoods involved in the initiative.

In New York, the most common rodents are Norway rats and house mice. The program relies on experts in its Disease Control Division to notify the program about rodent-borne diseases. Approximately 10 to 20 cases of canine leptospirosis are reported each year. The agency's laboratory is capable of supporting investigations of rodent-related emergencies and protocols exist for collecting lab samples. Rodent bites/injuries are tracked through the animal bite surveillance system, which has reported approximately 400 rat bites per year. The program notes that the number of rodent-related bites/injuries is grossly under-reported.

The Rat Information Portal gives the public the facts about rats in New York.

Public Education and Partnerships

The program does not have a rodent-specific communications plan, but the NYC DOHMH does have a communications plan. Health educators work closely with the program to develop pamphlets and presentations to different audiences through various communication channels. Program staff speak about rodent control at public events, such as community board meetings. The program disseminates rodent-related information through pamphlets, the website, and online resources.

The Rat Information Portal gives the public the facts about rats in New York. Through the Rat Information Portal, the public can find ideas about coordinated rat control efforts in their neighborhoods, generate maps of neighborhood rat inspection data, learn about the steps for finding evidence of rats on their property and how to manage them, and learn how to file a complaint.

The New York City Rodent Academy offers courses in rat management. The Rodent Academy provides training on how to manage rodent populations through IPM. The Rodent Academy provides training on the biology, behavior, and habitat of rodents, contributing factors to infestation, effective ways of evaluating site-specific responses and strategies, and effective communication strategies. Half-day trainings are targeted toward property managers, homeowners, tenants, and the local business community. Three-day intensive trainings are offered for pest management professionals, food safety personnel involved in rodent control programs, city employees, and others. Since 2005, the three-day academy has trained over 2,000 individuals from all over the United States.

Additionally, the program has established the Mayer's Rodent Task Force, a forum with more than 20 city agencies. The task force brings together senior-level managers from agencies responsible for property management and rodent control. The task force meets weekly. The task force is coordinated by the Mayor's Office of Operations and NYC DOHMH. NYC DOHMH steers the efforts for rodent control. An IPM-focused committee convenes twice a year to discuss topics such as pesticide use.

Policies and Regulations

All laws and regulations related to rodent control are reviewed as needed, for example, as prompted by the Environmental Protection Agency's (EPA's) pesticide label changes and label reviews. The program was involved in the EPA's Risk Mitigation

Decision for Ten Rodenticides. Local Law 37 amends the administrative code of New York to promote the reduction of pesticide use by city agencies. The program enforces the New York City Health Code Article 151, which addresses rodents, insects, and other pests. The program makes an effort to educate and inform the public about any changes in laws or regulations, specifically through seminars and the Rodent Academy.

Rodent Control Program Workforce

Processes exist to ensure employees have proper certifications. Education of professional rodent control staff in all city agencies is also important to ensure that staff and managers are current on best practices. Hundreds of rodent control staff have attended trainings such as those held by the Rodent Academy. Program staff incorporate and apply newly identified best practices acquired from attending national and international seminars and reading pest management journals.

Evaluation and Research

The program is constantly evaluating its rodent control activities; for example, inspections and exterminations have a quality-assurance component. The program has observed positive outcomes, but sustaining positive outcomes can be difficult over long periods of time. The program found that rounds of inspections conducted in neighborhoods, combined with prompt communication with owners, publication of findings, and fines for noncompliance, reduced the prevalence and severity of rat infestations in a large area with a history of severe rat problems.

The program partners with local universities to conduct research related to rodent control and other vector priorities. The program shares and promotes its own best practices with stakeholders and peers, specifically practices related to baiting and trapping.

Conclusion

Some significant challenges for rodent control include lack of science and research. For example, more research could be conducted on the profiling of different rat ecosystems (i.e., descriptions of environments, behaviors exhibited, and genomic analysis) and the surveillance of rats arriving on ships or trains. A national group could host a biannual rodent control research symposium to encourage and promote collaborations and research and to raise awareness of the importance of rodent



control. Additionally, property owners may lack an understanding of rodent control, funding, and resources. With enough staff, funding, public education, resources, and technology, rodent control can be successful. Rodent control activities must be proactive and sustainable; rodent control cannot be done solely based on complaints. More support is needed from federal, state, and city governments to combat rodents and to hold agencies and businesses accountable for their role in controlling rats.

Overall, some of the rodent control program's greatest successes and innovations include rodent indexing (proactive inspections), the Rodent Reservoir Analysis pilot project, the Rat Information Portal, the Rodent Academy, and the Mayor's Rodent Task Force.

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