# Epi Data Tables

New York City Department of Health and Mental Hygiene July 2016, No. 73

# Neighborhood-based Rat Surveillance in the Bronx and Manhattan, New York City, 2010-2014

## Data Tables

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## Data Sources

### NYC DOHMH Veterinary, Rodent and Vector Surveillance System 2010-2014:

This report includes data on properties that were inspected for active rat signs (ARS) one or more times per year from 2010 to 2014. ARS include any of six different signs 1) fresh tracks, 2) fresh droppings, 3) active burrows, 4) active runways and rub marks, 5) fresh gnawing marks, and 6) live rats.

Method: During each indexing round, inspectors walked every block of each neighborhood, using handheld computers loaded with maps of the properties to record inspection findings. Inspectors inspected as much of the exterior of the property as could be accessed, including front, side, and rear yards or garbage areas, looking for ARS. A finding of any ARS resulted in a failure on initial inspection.

### 311 complaints, 2014

Complaints made to New York City's non-emergency services line with descriptors of 'conditions attracting rodents,' 'rat sighting,' and 'signs of rodents,' made in Community Districts that were part of the rat indexing program, are included.

### American Community Survey (ACS)

ACS population estimates were used to calculate population adjusted rate of 311 complaints. The following ACS files were used as denomators: ACS 2006-2010 for data from year 2010, ACS 2007-2011 for year 2011, ACS 2008-2012 for year 2012, ACS 2009-2013 for years 2013 and 2014.

ACS 2008-2012 estimates were used for neighborhood poverty analysis, where neighborhood poverty (based on Census tract) is defined as the percent of families with incomes below 100% of the Federal Poverty Level (FPL), per ACS, in four categories: low poverty (<10% of residents below FPL ), medium (10 to <20% below FPL), high (20 to <30% below FPL), and very high poverty (≥30% below FPL).

To access the related Epi Data Brief, go to www1.nyc.gov/assets/doh/downloads/pdf/epi/databrief73.pdf

NYC Health

**Table 1. Number of properties inspected for active rat signs, by Community District, New York City, 2010-2014**

*Source: Veterinary, Rodent and Vector Surveillance System 2010-2014, New York City Department of Health and Mental Hygiene, Bureau of Veterinary and Pest Control Services*

| Community District | Properties in cohort N | Percent of total community district |
|---|---|---|
| Manhattan | | |
| 3 | 3,855 | 90% |
| 7 | 3,864 | 87% |
| 8 | 2,122 | 85% |
| 10 | 3,965 | 90% |
| 11 | 2883 | 90% |
| 12 | 2,344 | 85% |
| Total | 19,033 | 88% |
| Bronx | | |
| 4 | 2935 | 87% |
| 5 | 2835 | 85% |
| 6 | 3475 | 82% |
| 7 | 2876 | 79% |
| Total | 12,121 | 83% |

## Table 2: Count and rate of failed initial inspections for active rat signs (ARS) in the Bronx, by Community District, 2010-2014

*Source: Veterinary, Rodent and Vector Surveillance System 2010-2014, New York City Department of Health and Mental Hygiene, Bureau of Veterinary and Pest Control Services*

| | Failed initial inspections for ARS | |
|---|---|---|
| | N | Percent |
| **Bronx Community District and Year of inspection** | | |
| CD 4 | | |
| 2010 | 359 | 12.2% |
| 2011 | 242 | 8.3% |
| 2012 | 415 | 14.1% |
| 2013 Average^ | 375 | 12.8% |
| 2014 Average^ | 310 | 10.6% |
| CD 5 | | |
| 2010 | 239 | 8.4% |
| 2011 | 256 | 9.0% |
| 2012 | 284 | 10.0% |
| 2013 Average^ | 312 | 11.0% |
| 2014 Average^ | 284 | 10.0% |
| CD 6 | | |
| 2010 | 180 | 5.2% |
| 2011 | 153 | 4.4% |
| 2012 | 309 | 8.9% |
| 2013 Average^ | 273 | 7.8% |
| 2014 Average^ | 223 | 6.4% |
| CD 7 | | |
| 2010 | 249 | 8.7% |
| 2011 | 171 | 6.0% |
| 2012 | 334 | 11.6% |
| 2013 Average^ | 275 | 9.6% |
| 2014 Average^ | 218 | 7.6% |

^ In years in which two rounds of indexing were conducted, an average rate is reported.

**Table 3: Count and rate of failed initial inspections for active rat signs (ARS) in Manhattan, by Community District, 2010-2014**

*Source: Veterinary, Rodent and Vector Surveillance System 2010-2014, New York City Department of Health and Mental Hygiene, Bureau of Veterinary and Pest Control Services*

| | Failed initial inspections for ARS | |
|---|---|---|
| **Manhattan Community District and Year of inspection** | **N** | **Percent** |
| CD 3 | | |
| 2010 | 492 | 12.8% |
| 2011 | 409 | 10.6% |
| 2012 | 302 | 7.8% |
| 2013 | 290 | 7.5% |
| 2014 | 307 | 8.0% |
| CD 7 | | |
| 2010 | 254 | 6.6% |
| 2011 | 189 | 4.9% |
| 2012 | 187 | 4.8% |
| 2013 | 226 | 5.8% |
| 2014 | 148 | 3.8% |
| CD 9 | | |
| 2010 | 203 | 9.6% |
| 2011 | 197 | 9.3% |
| 2012 | 205 | 9.7% |
| 2013 | 112 | 5.3% |
| 2014 | 125 | 5.9% |
| CD 10 | | |
| 2010 | 190 | 4.8% |
| 2011 | 185 | 4.7% |
| 2012 | 258 | 6.5% |
| 2013 | 143 | 3.6% |
| 2014 | 191 | 4.8% |
| CD 11 | | |
| 2010 | 257 | 8.9% |
| 2011 | 181 | 6.3% |
| 2012 | 268 | 9.3% |
| 2013 | 162 | 5.6% |
| 2014 | 173 | 6.0% |
| CD 12 | | |
| 2010 | 326 | 13.9% |
| 2011 | 247 | 10.5% |
| 2012 | 264 | 11.3% |
| 2013 | 345 | 14.7% |
| 2014 Average^ | 246 | 10.5% |

^ In years in which two rounds of indexing were conducted, an average rate is reported.

**Table 4: Mean active rat signs (ARS) inspection failure rate by neighborhood poverty, New York City, 2014**

*Sources: Veterinary, Rodent and Vector Surveillance System 2010-2014, New York City Department of Health and Mental Hygiene, Bureau of Veterinary and Pest Control Services; American Community Survey 2008-2012*

| | Mean ARS inspection failure | Census tracts |
|---|---|---|
| | Percent | N |
| **Neighborhood poverty category*** | | |
| Low (<10% below FPL) | 3.6% | 25 |
| Medium (10% - <20% below FPL) | 7.6% | 36 |
| High (20% - <30% below FPL) | 9.2% | 76 |
| Very high (>=30% below FPL) | 8.1% | 112 |

*Neighborhood poverty (based on Census tract) is defined as the percent of families with incomes below 100% of the Federal Poverty Level (FPL), per American Community Survey 2008-2012, in four categories: low poverty (<10% of residents below FPL ), medium (10 to <20% below FPL), high (20 to <30% below FPL), and very high poverty (≥30% below FPL).

## Table 5: Count and rate of 311 rat-related complaints in Community Districts of New York City, 2010-2014

*Sources: Veterinary, Rodent and Vector Surveillance System 2010-2014, New York City Department of Health and Mental Hygiene, Bureau of Veterinary and Pest Control Services; American Community Survey 2006-2010, 2007-2011, 2008-2012, and 2009-2013.*

Rate per 10,000 population

| Community District | 2010 | | 2011 | | 2012 | | 2013 | | 2014 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | Rate | N | Rate | N | Rate | N | Rate | N | Rate |
| Manhattan | | | | | | | | | | |
| 3 | 430 | 26.0 | 366 | 22.3 | 369 | 22.4 | 400 | 24.1 | 773 | 46.7 |
| 7 | 619 | 28.9 | 487 | 22.9 | 565 | 26.6 | 623 | 29.2 | 635 | 29.7 |
| 9 | 386 | 36.0 | 291 | 26.1 | 323 | 28.6 | 326 | 28.8 | 474 | 41.9 |
| 10 | 462 | 39.2 | 458 | 38.3 | 457 | 37.4 | 479 | 38.4 | 493 | 39.5 |
| 11 | 215 | 17.4 | 213 | 17.3 | 205 | 16.7 | 279 | 23.2 | 330 | 27.4 |
| 12 | 454 | 22.4 | 453 | 22.3 | 468 | 23.2 | 521 | 25.8 | 621 | 30.7 |
| Bronx | | | | | | | | | | |
| 4 | 424 | 29.3 | 394 | 26.7 | 473 | 31.8 | 404 | 27.2 | 590 | 39.8 |
| 5 | 311 | 23.2 | 335 | 25.6 | 251 | 19.2 | 342 | 25.9 | 480 | 36.3 |
| 6 | 285 | 32.4 | 246 | 27.7 | 263 | 29.6 | 285 | 31.6 | 336 | 37.3 |
| 7 | 393 | 26.8 | 377 | 25.7 | 317 | 21.2 | 306 | 20.7 | 436 | 29.5 |
| **Total** | **5,989** | | **5,631** | | **5,703** | | **5,978** | | **7,182** | |

Note: the increase in complaints in 2014 was mainly due to the launch of a new 311 app in February of 2014 that made it easier for rat sightings to be reported.