

# Targeted TNR & Getting the Most Bang for Your Buck



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**COMMUNITY CATS**  
PODCAST



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Co-Owner of Feline Minds



**Honoring Our Best Friends**  
with Cheryl Richardson,  
Author of How to Survive  
the Loss of a Pet



**How to Reunite Pets and**  
**Owners** with Corinne Bourgoin,  
Operations Coordinator, MSPCA  
Boston Adoption Center



**Same Team with Sterling**  
Davis, Atlanta's "Trap King"



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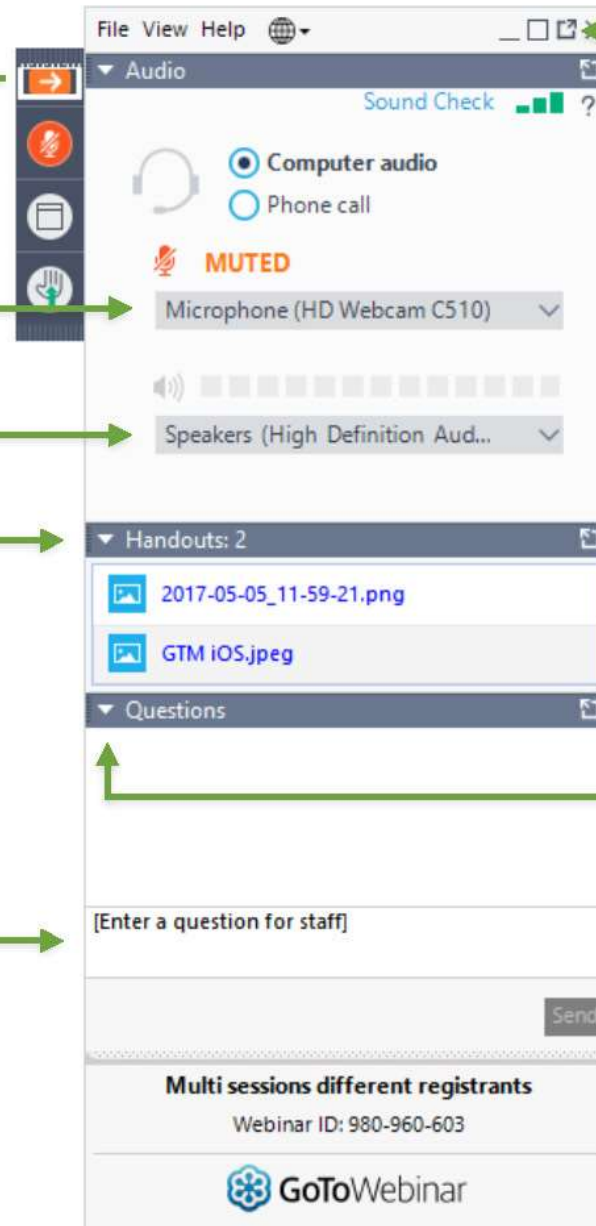
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**Susan Richmond**


Executive Director

Neighborhood Cats

[susan@neighborhoodcats.org](mailto:susan@neighborhoodcats.org)





A man wearing a black baseball cap, sunglasses, a grey t-shirt, and light blue cargo pants is crouching on a ground covered with dry leaves. He is holding a small piece of food in his hand, offering it to a group of cats. There are three black cats and one brown and white tabby cat. Several small, pink, rectangular food containers are on the ground, some of which the cats are eating from. A large clear plastic bag and two yellow cans are also on the ground near the man.

**Bryan Kortis**

National Programs Director  
Neighborhood Cats  
[bryan@neighborhoodcats.org](mailto:bryan@neighborhoodcats.org)



## Community TNR webinar series

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**FREE WEBINAR!**  
**MOBILIZING THE  
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20 MAY  
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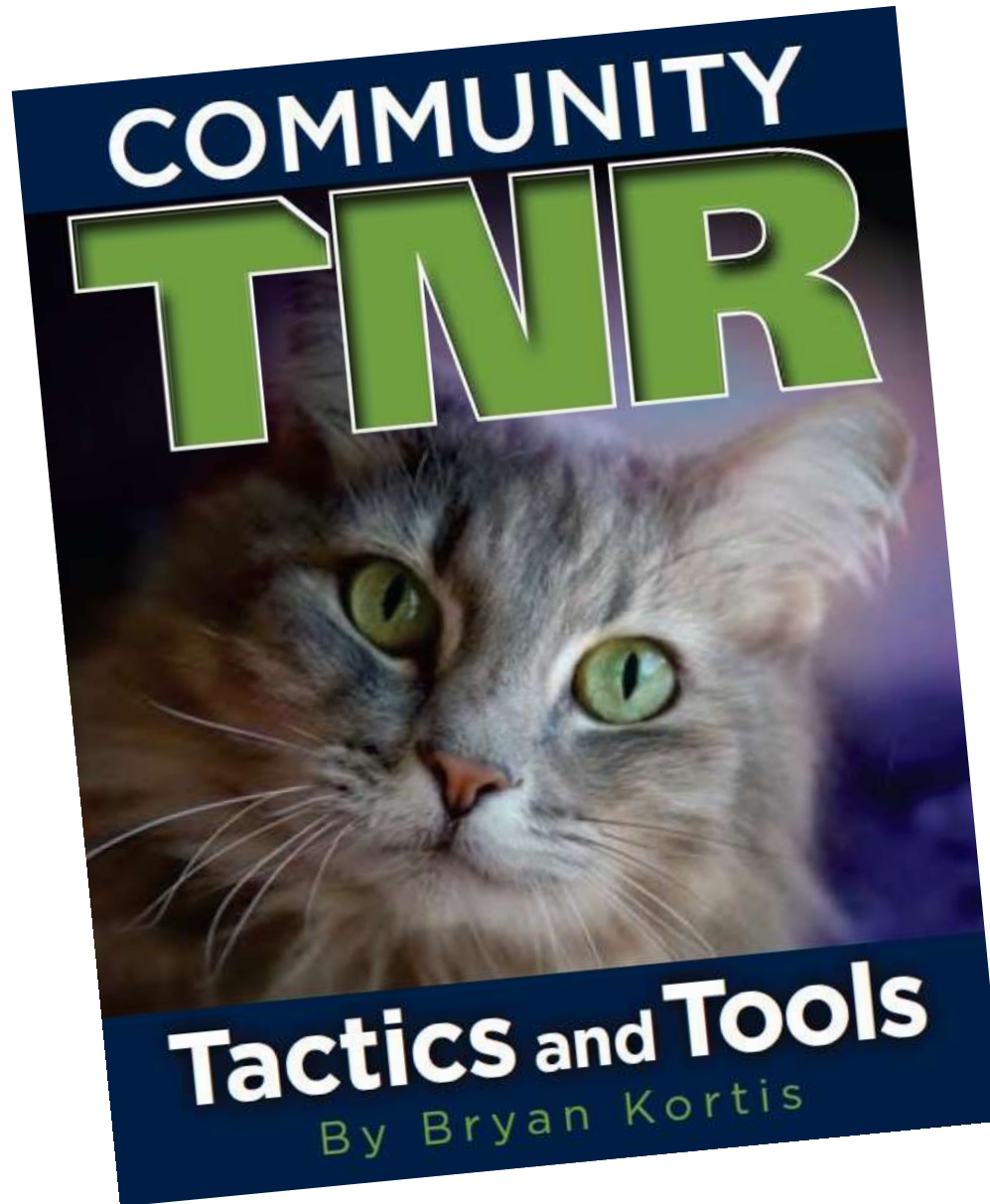
**NEIGHBORHOOD CATS  
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HOW SHELTERS SAVE  
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## Community TNR: Tactics and Tools

- published by PetSmart Charities
- download handout or purchase a print copy at [www.amazon.com](http://www.amazon.com)





A photograph showing a large group of cats, mostly tabbies and black-and-white cats, gathered in a cluttered outdoor area. In the background, there is a large blue tarp, various buckets, and tangled wires. In the foreground, several cats are eating from small white bowls on the ground. The scene suggests a high density of cats in a resource-poor environment.

## The problem:

- Too many cats,
- Too few surgeries, trappers, traps, transporters, funds...



## The solution: targeting

Concentrate limited resources in a geographic area of high need in order to maximize impact.





## Elements of targeting

- Limited resources
- Concentration
- Specific area
- High need
- Maximize impact
  - fewer cats
  - lower intake
  - fewer complaints





# Homicides 2003-2009

# 3,402

Average homicides per year: 540

All homicides

Month and time of day

Race/ethnicity of victim

Race/ethnicity of perpetrator

Sex of victim

Sex of perpetrator

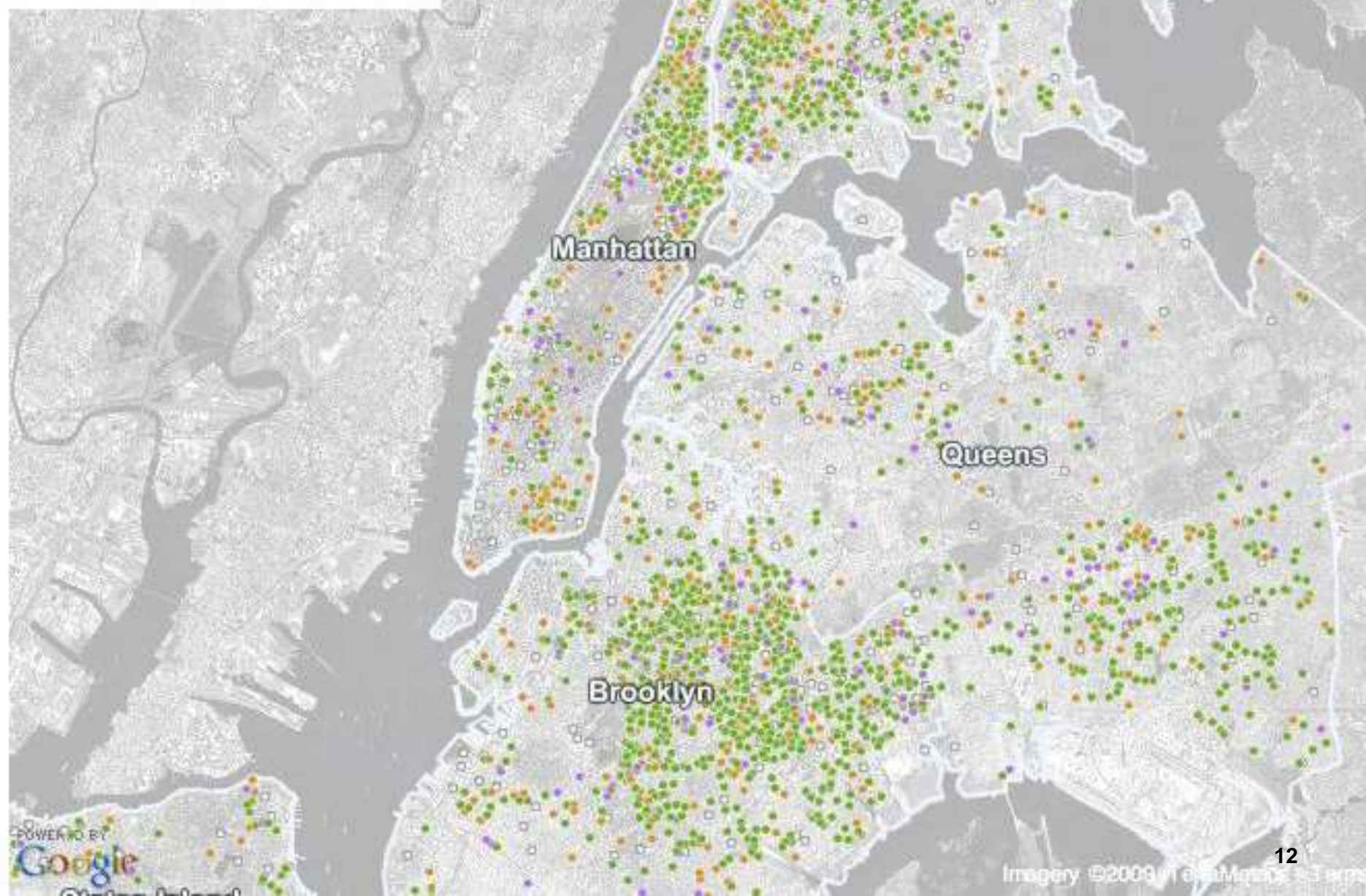
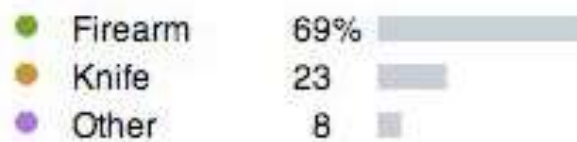
Age of victim

Age of perpetrator

**Weapon used**

Borough

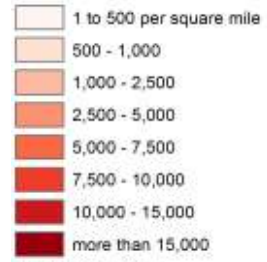
## WEAPON



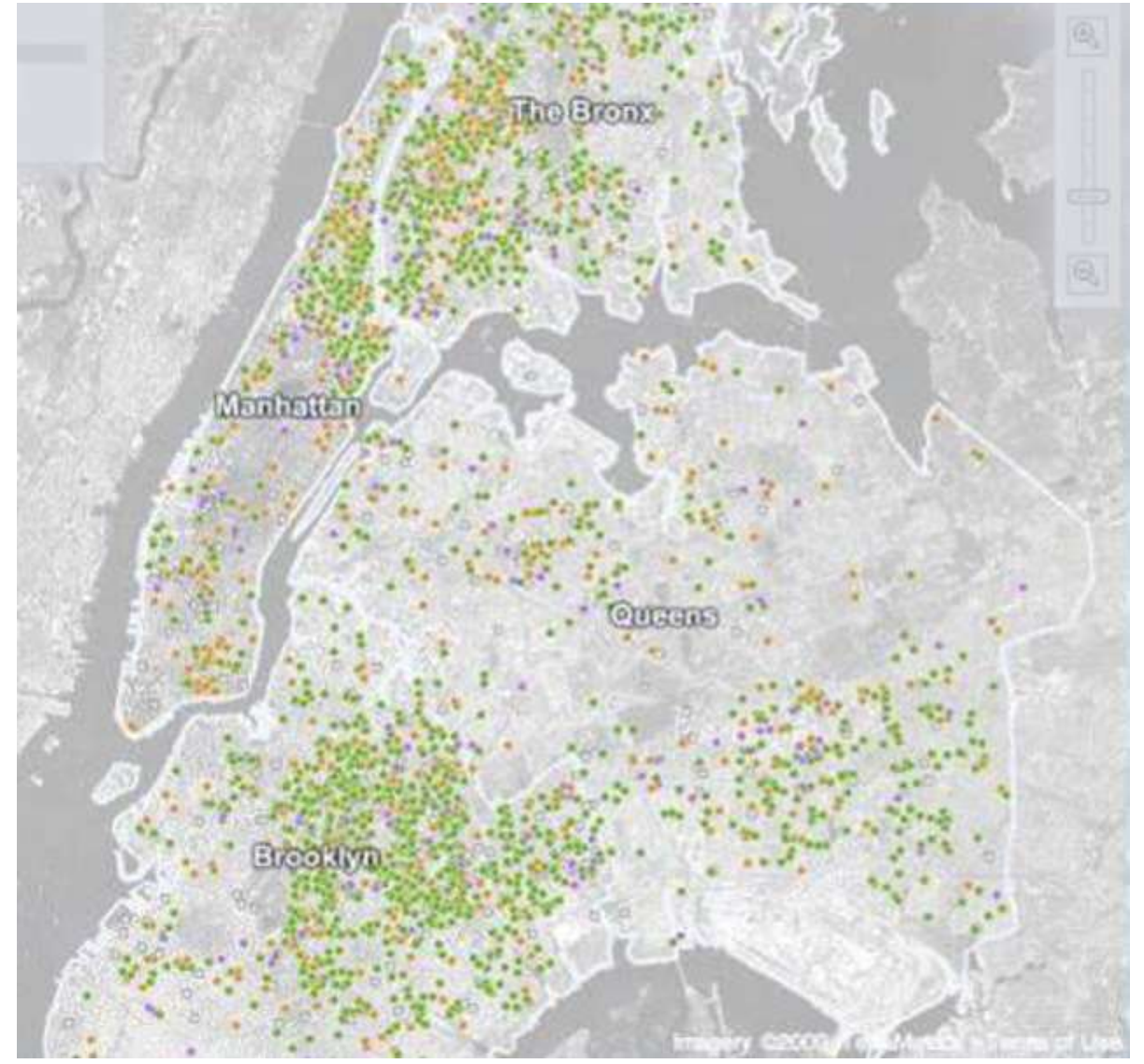
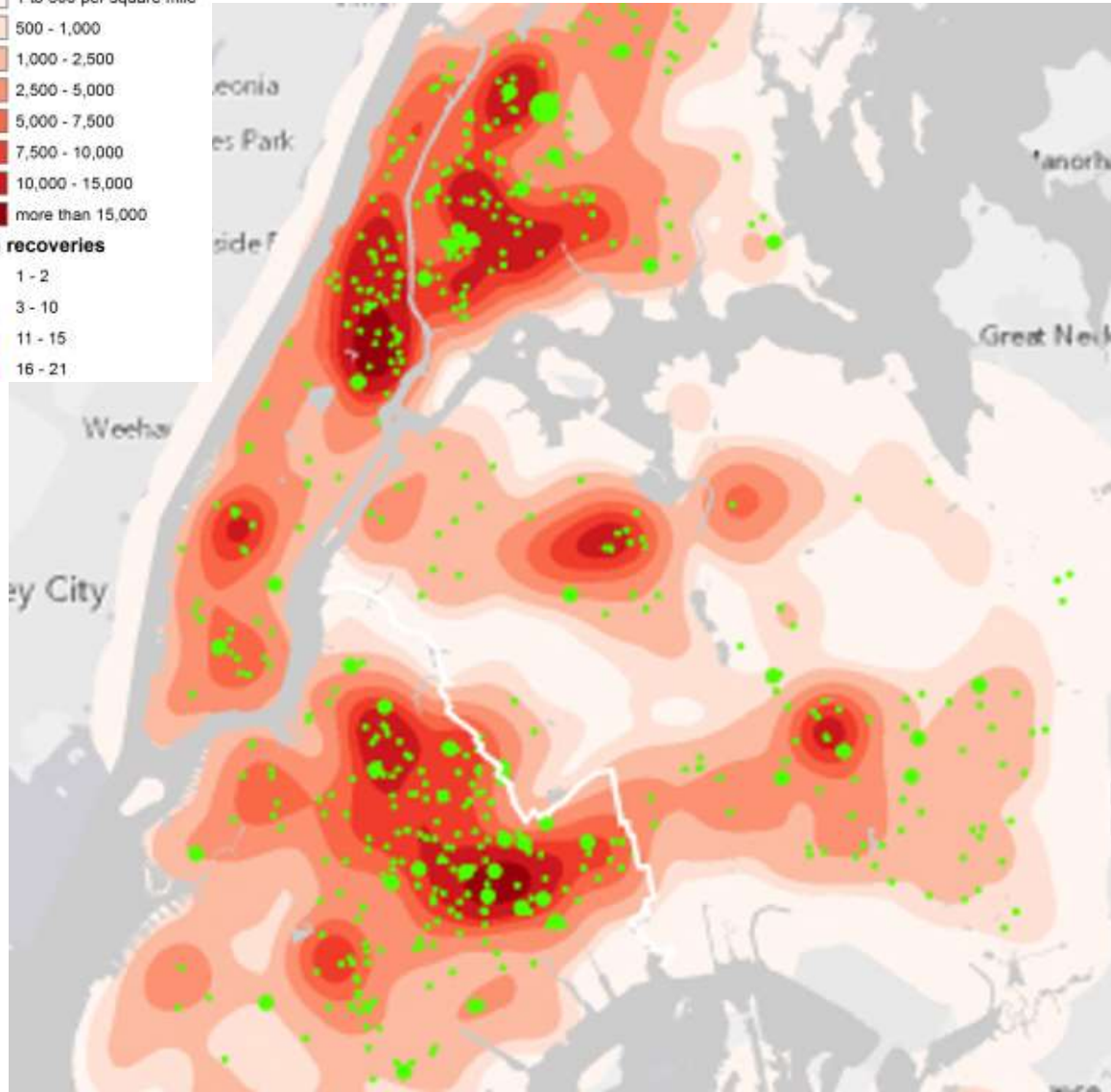
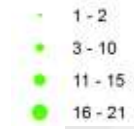
Map does not show 11 locations that the police have not released.



# Stop and frisks in 2011 per square mile



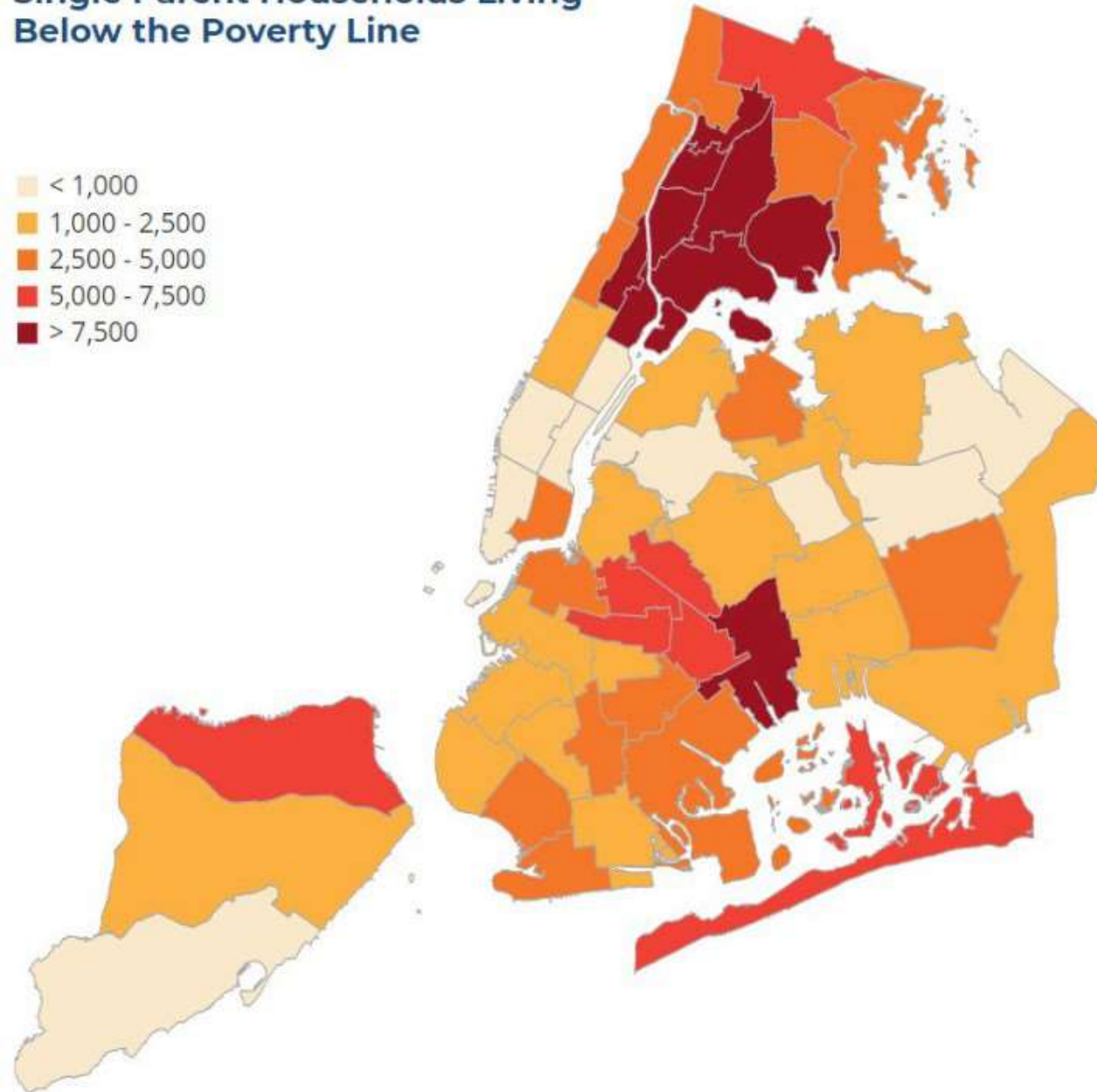
## Gun recoveries





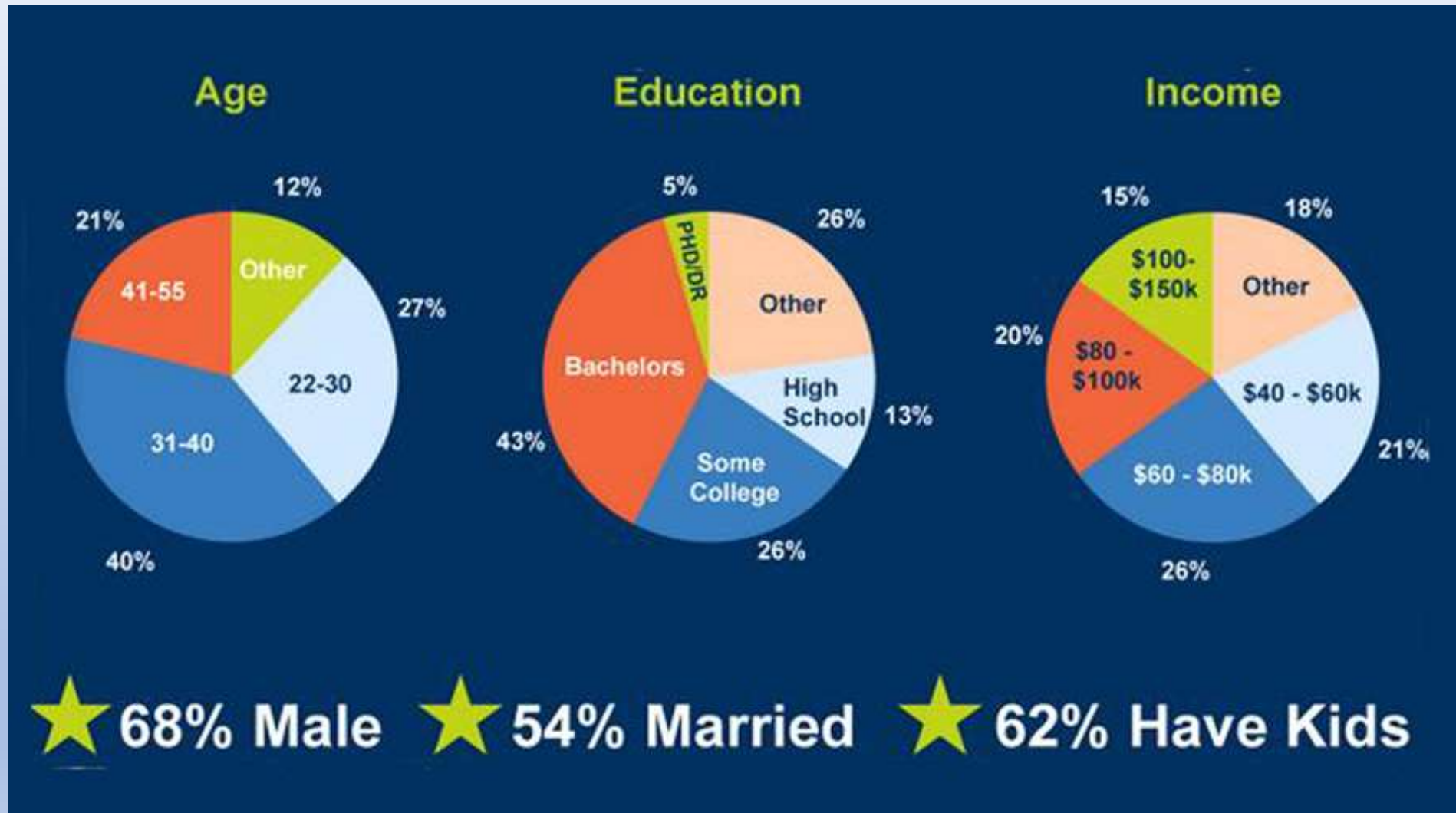
## New York City 2015 - 2018

### Single Parent Households Living Below the Poverty Line





## Demographic targeting (podcast)





# Targeted TNR is geographic, not demographic

YES



Downtown district



NO

Elderly caretakers













*An unspayed female cat, her mate and all of their offspring, producing 2 litters per year, with 2.8 surviving kittens per litter can total:*



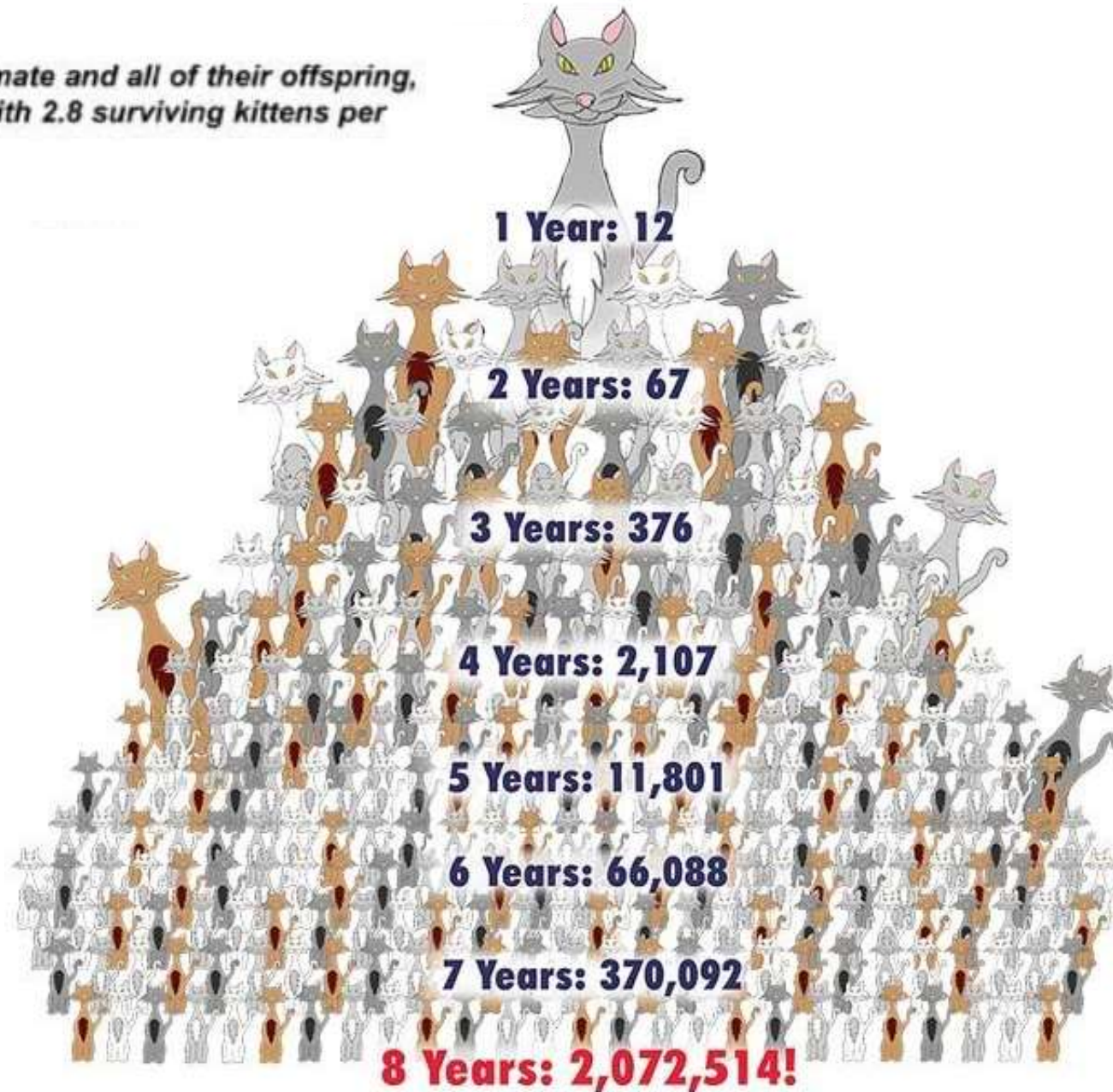




*An unspayed female cat, her mate and all of their offspring, producing 2 litters per year, with 2.8 surviving kittens per litter can total:*

## Carrying capacity limited by:

- Food
- Shelter
- Kitten mortality
- Territory
- Social tolerance level











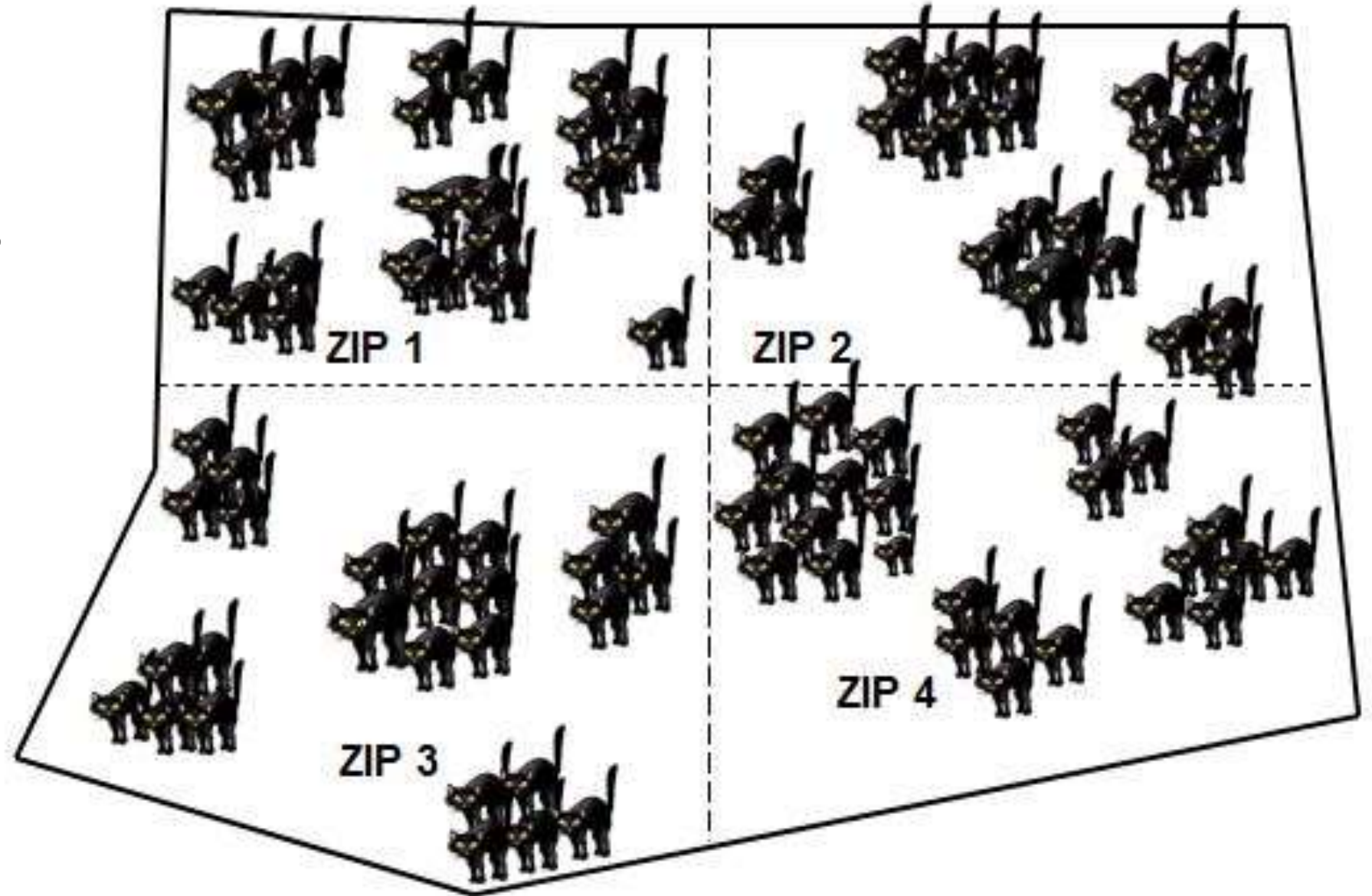






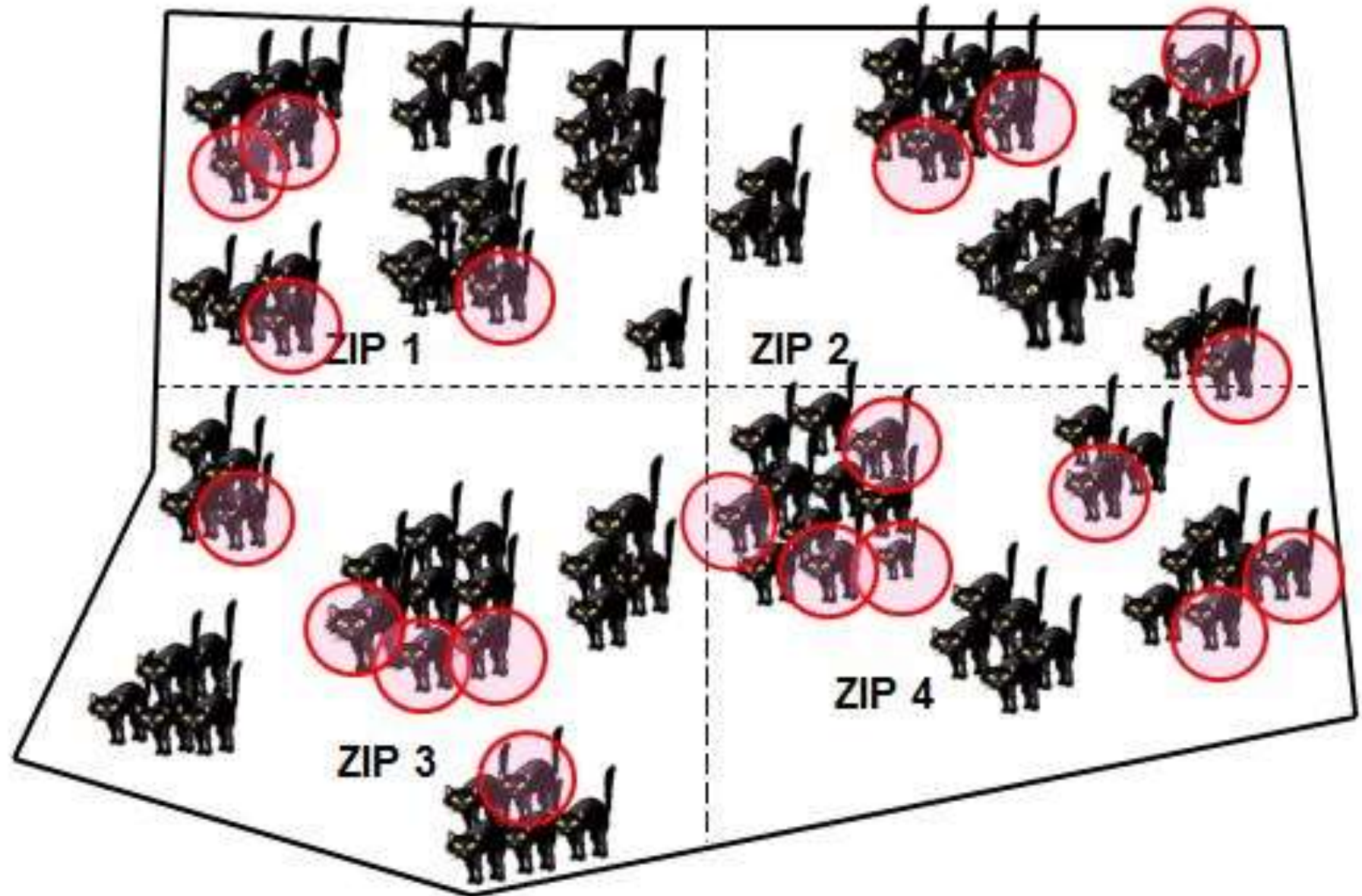
## Feralville

- 100 cats
- 20 surgeries



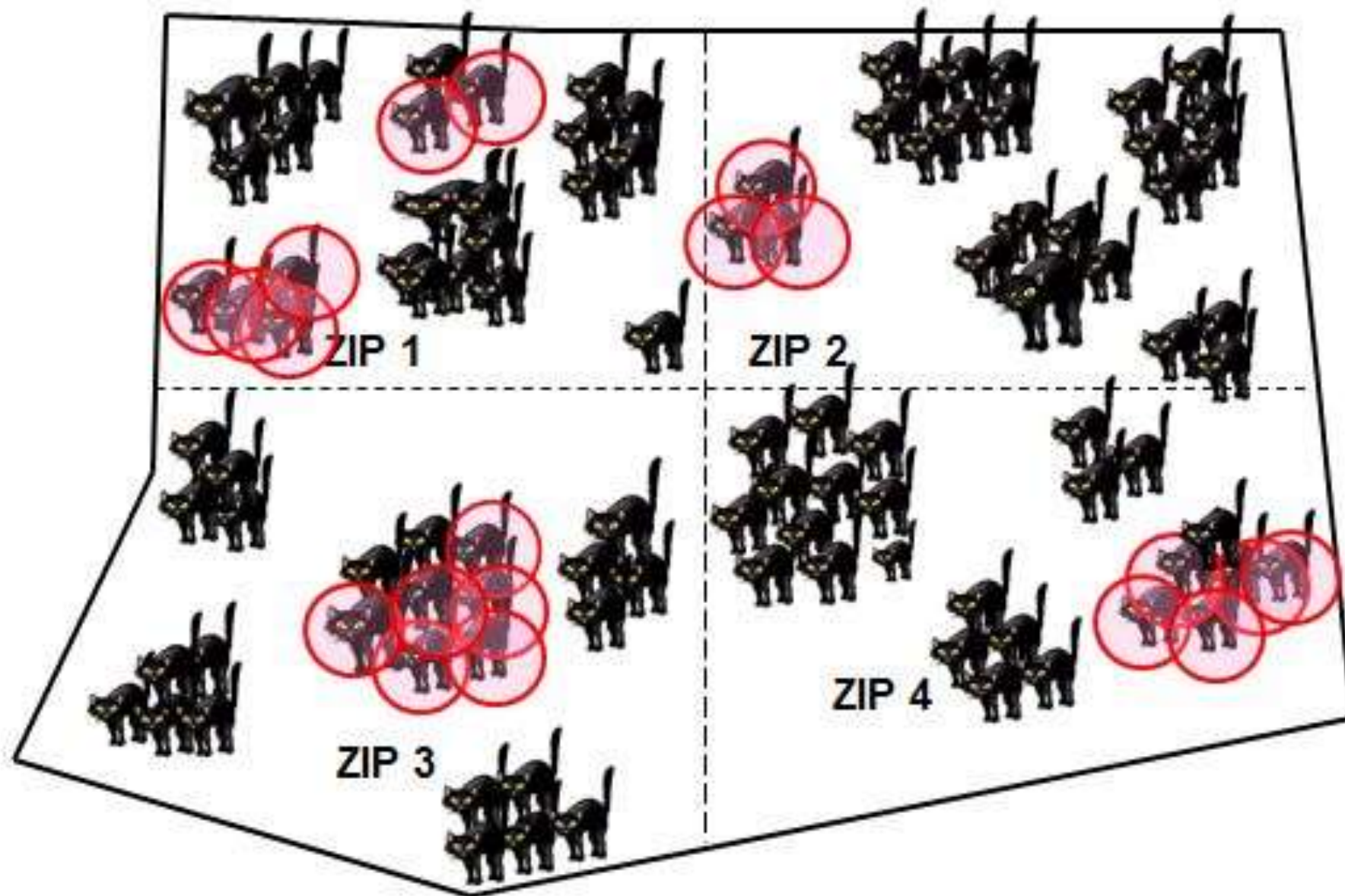


No targeting



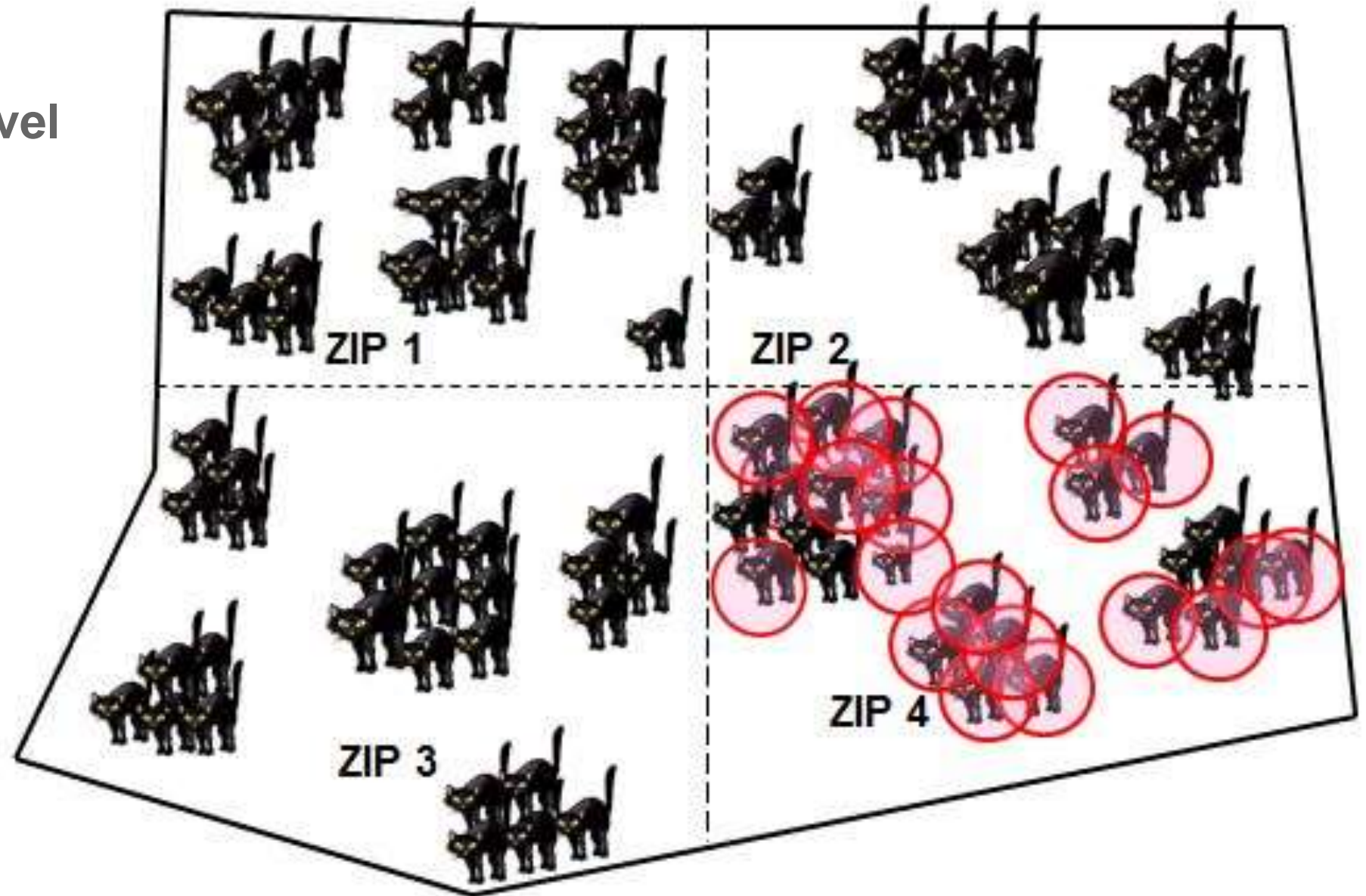


## Colony-level targeting





## Community-level targeting





## Vacuum effect





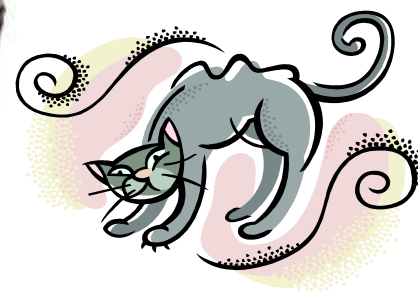
# Problem?









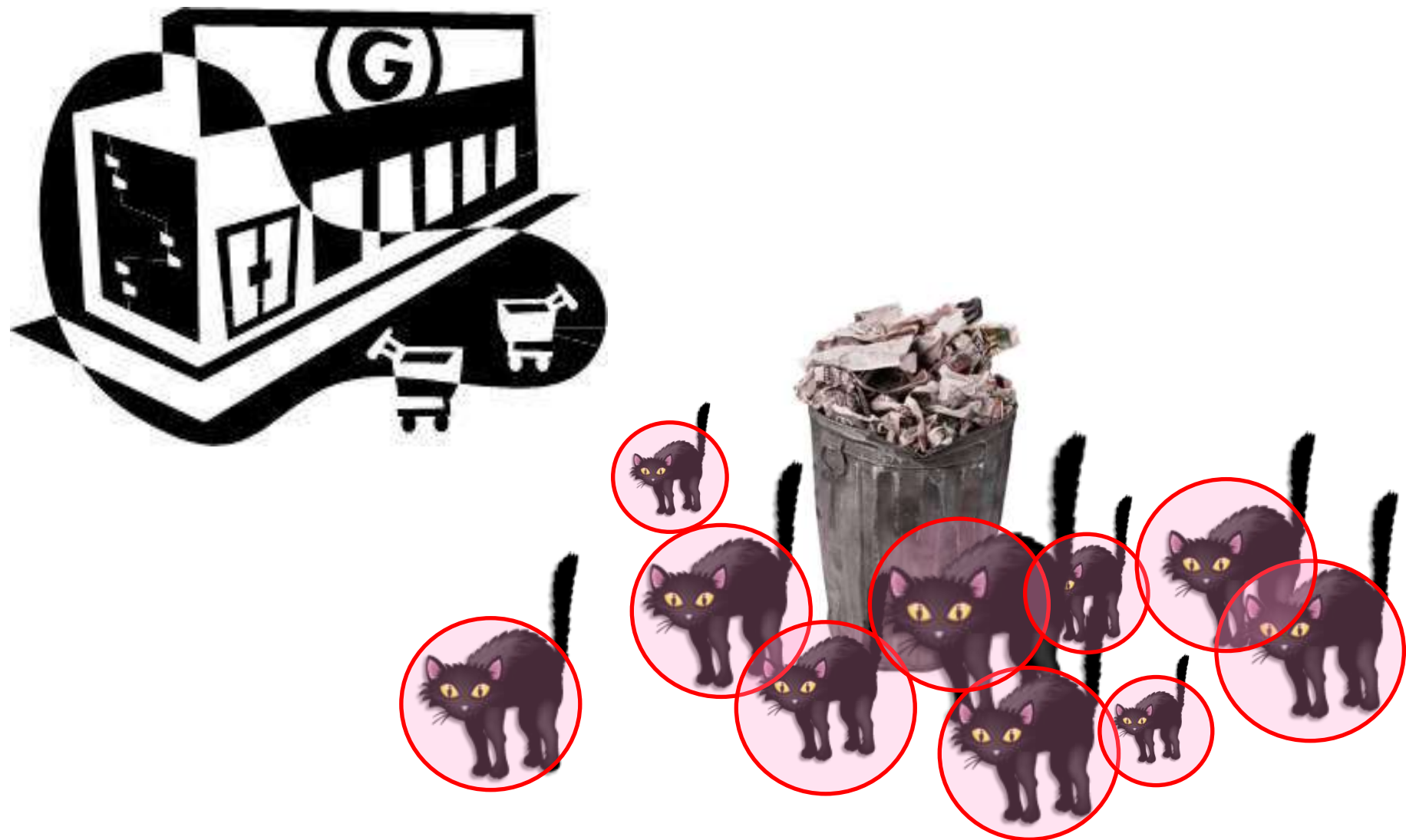


Vacuum is filled





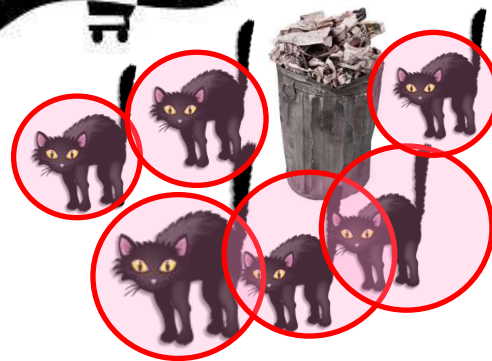
TNR instead



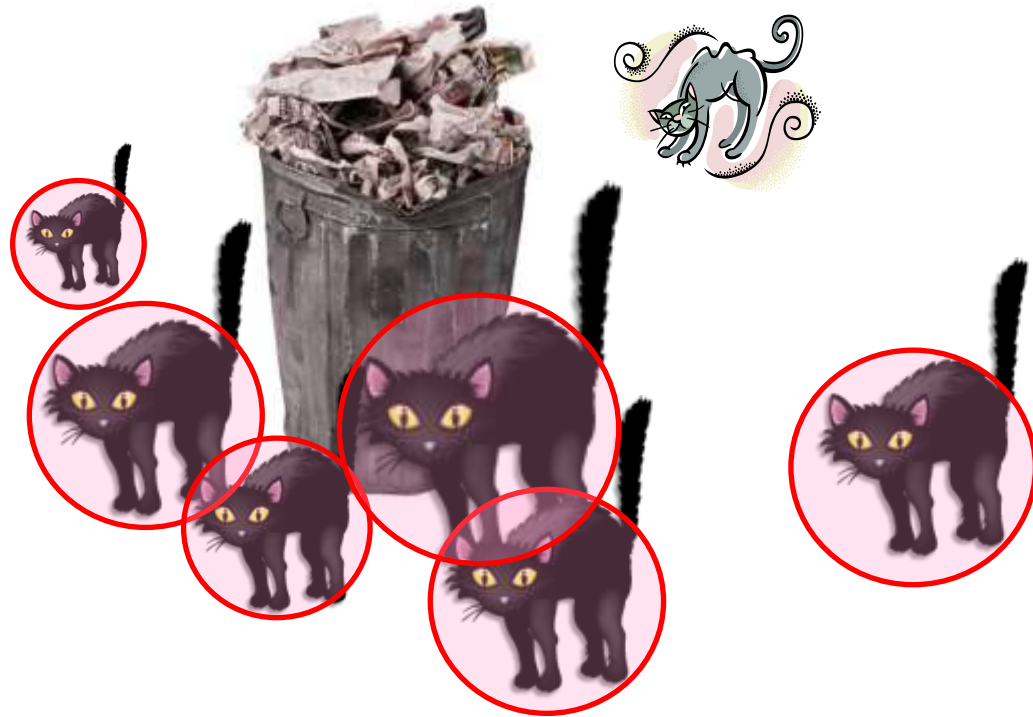
Few years later



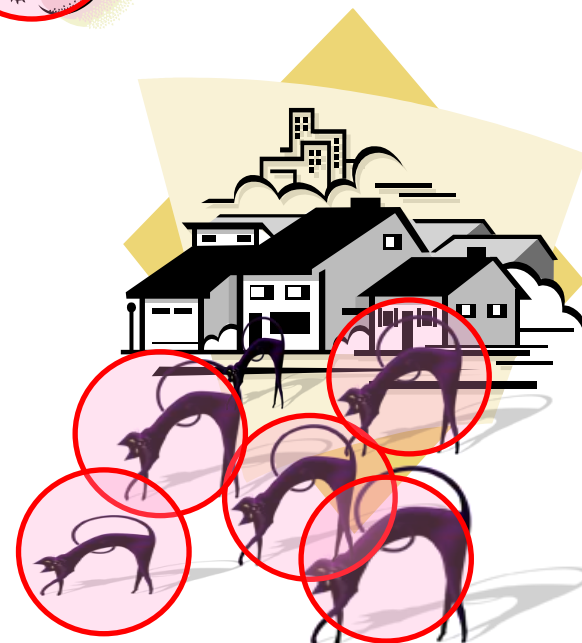
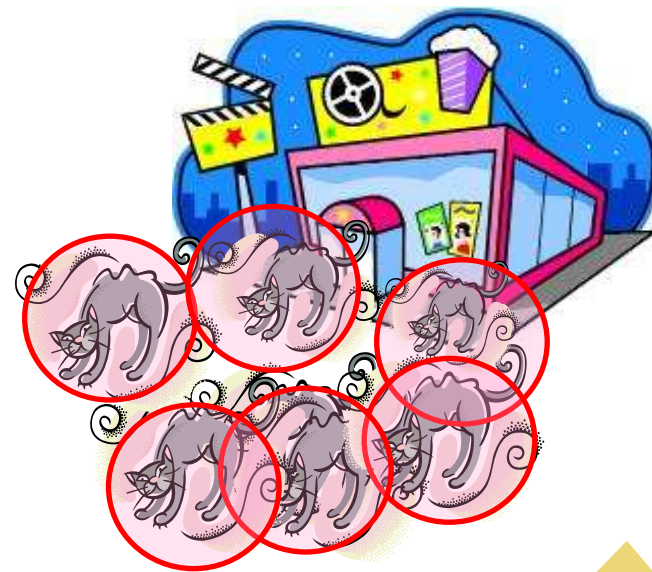
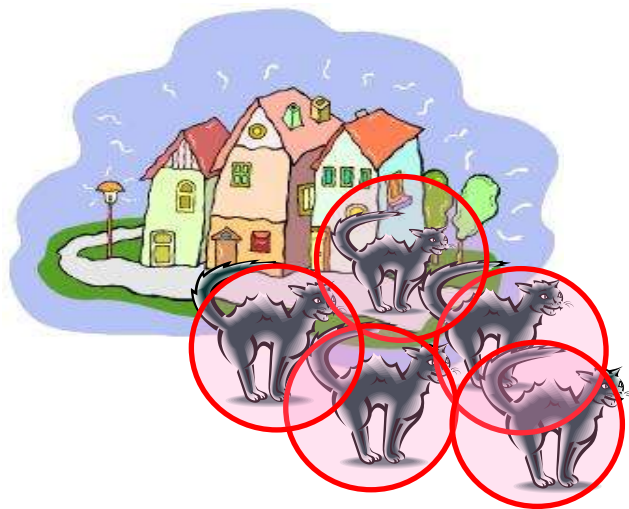




## Some gains reversed



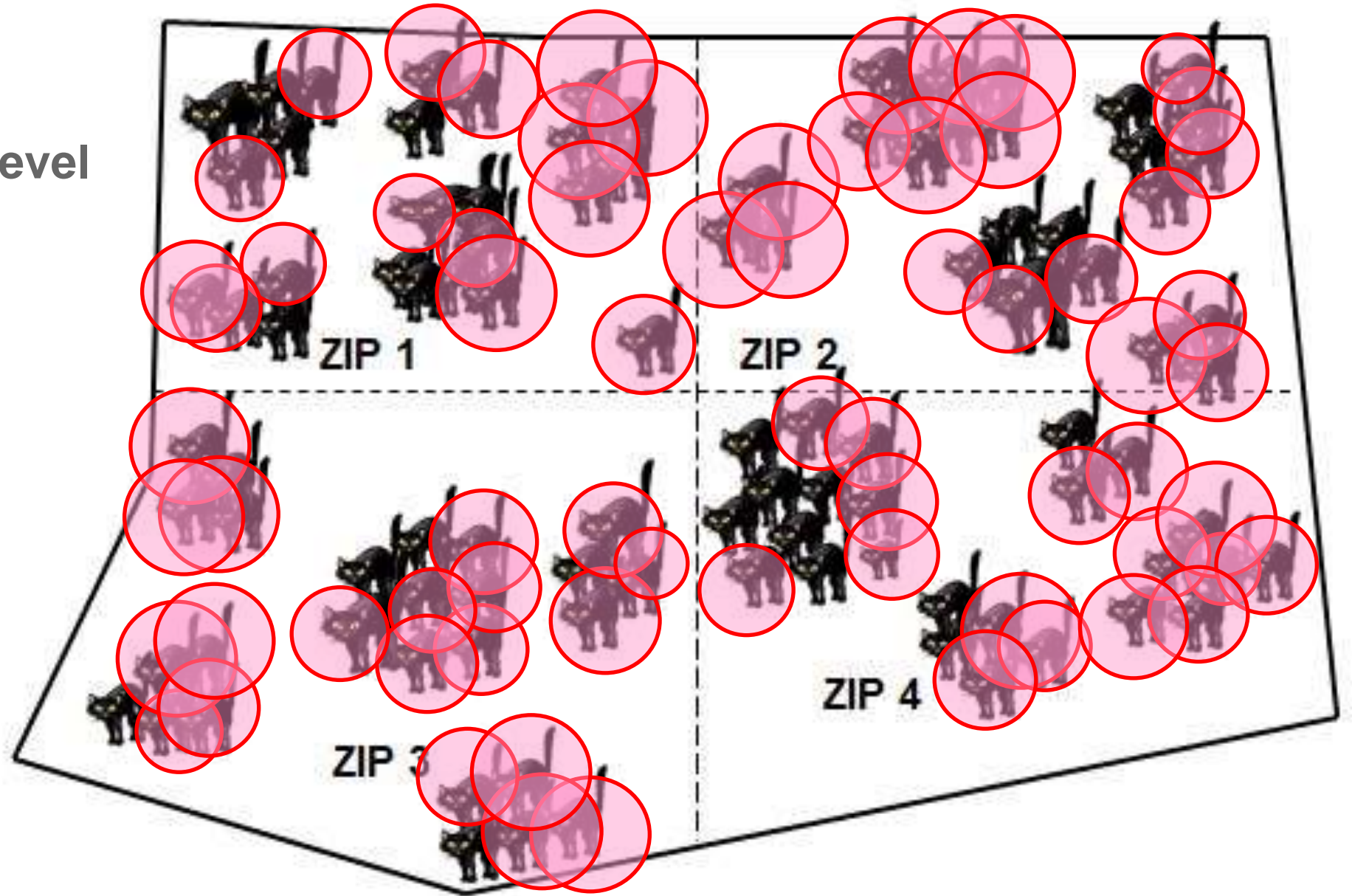






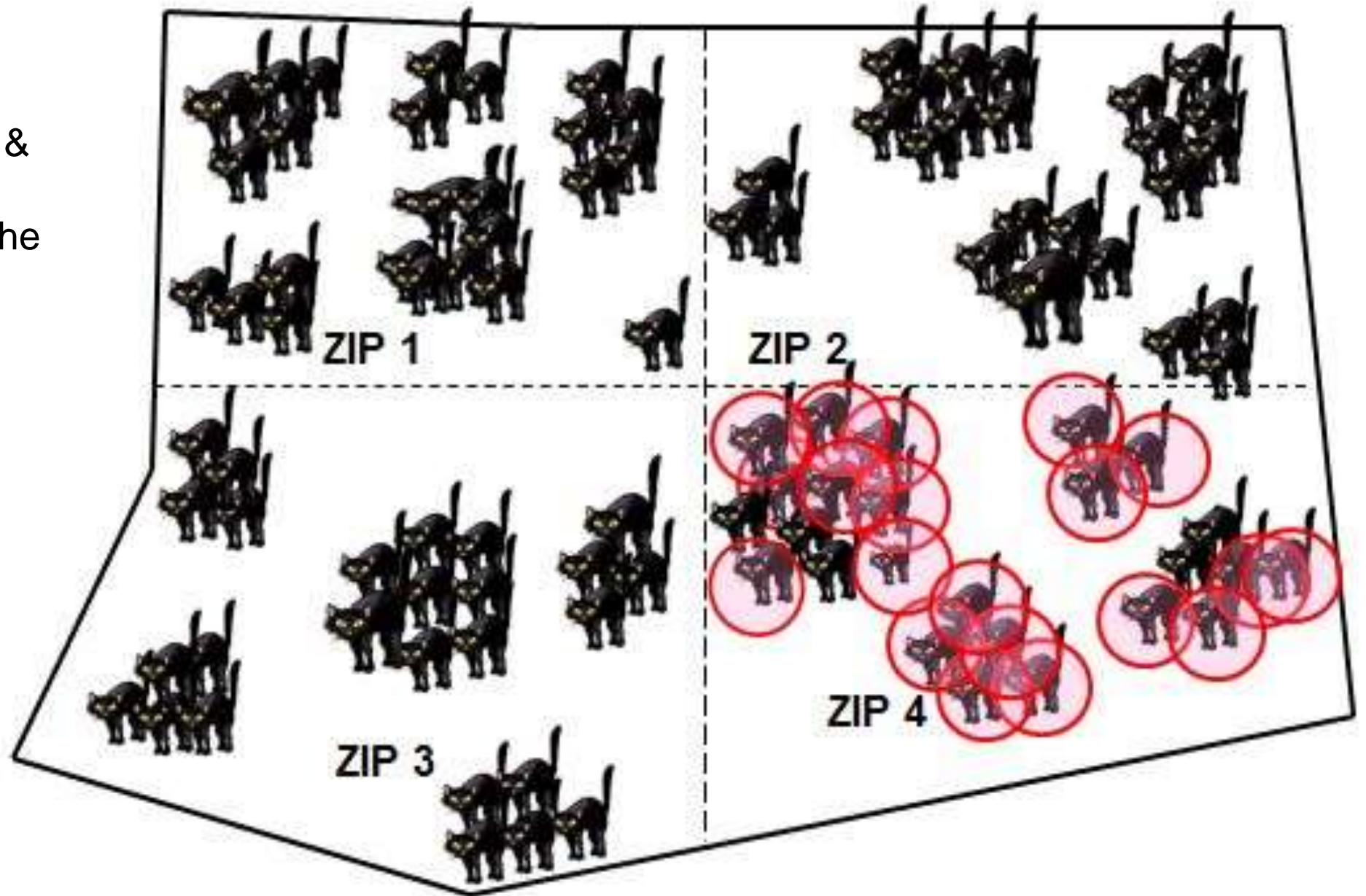


**Mistake:**  
extrapolating  
to community level



## In reality:

The more colonies & sections with high sterilization rates, the more potential population decline



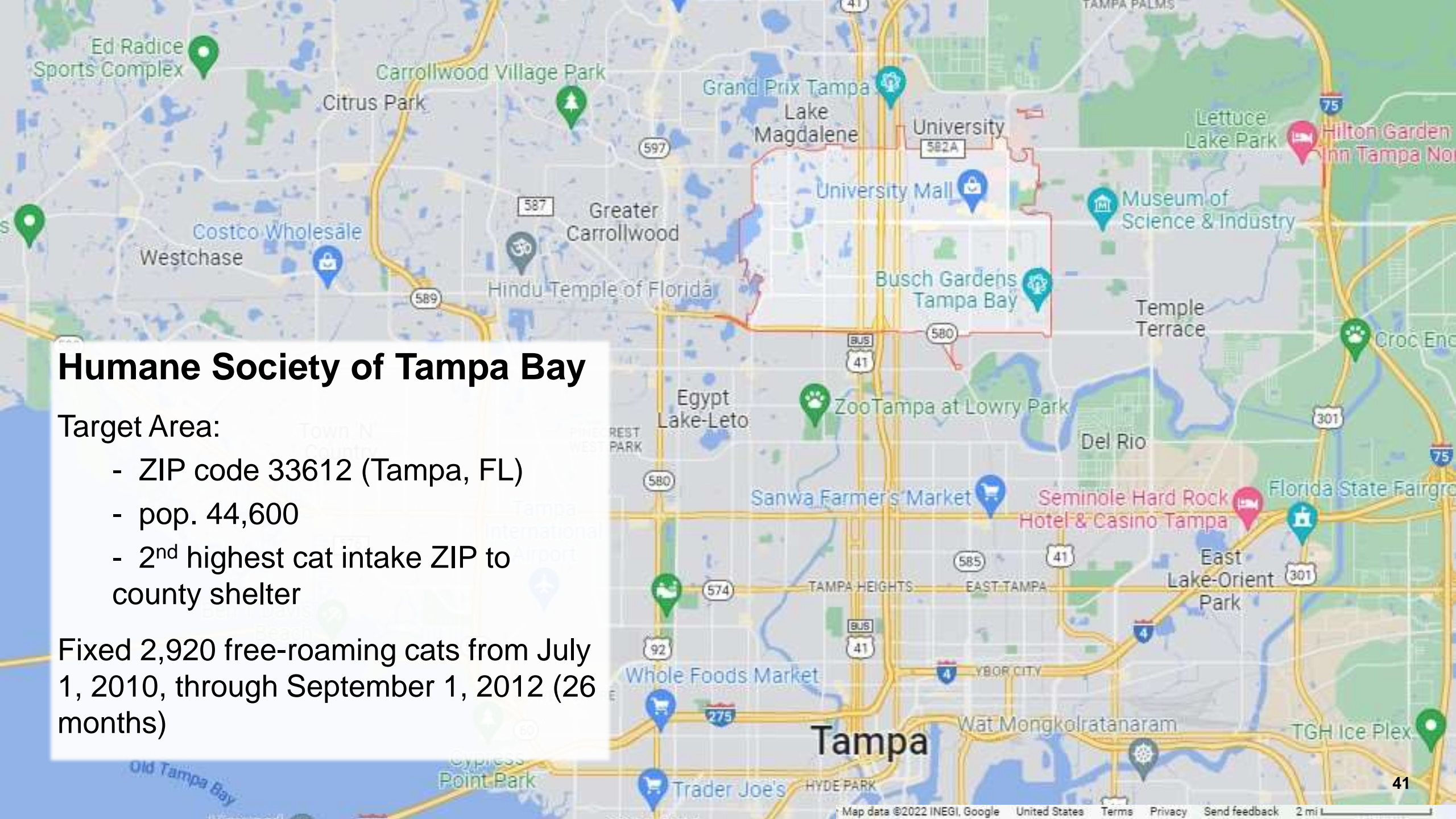


## Humane Society of Tampa Bay

### Target Area:

- ZIP code 33612 (Tampa, FL)
- pop. 44,600
- 2<sup>nd</sup> highest cat intake ZIP to county shelter

Fixed 2,920 free-roaming cats from July 1, 2010, through September 1, 2012 (26 months)





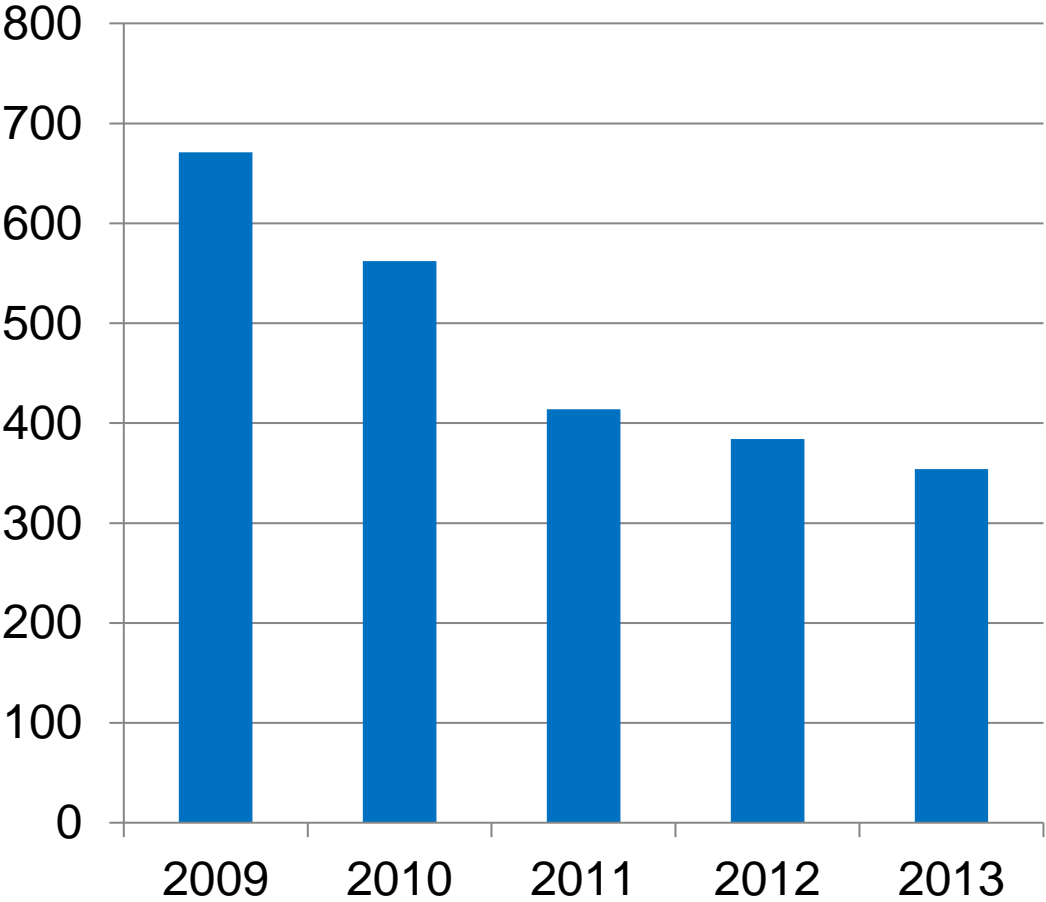
## Methods

- Full-time paid trapper supported by volunteers
- Block-by-block approach, moving west to east
- Wrapped vehicle
- Yard signs

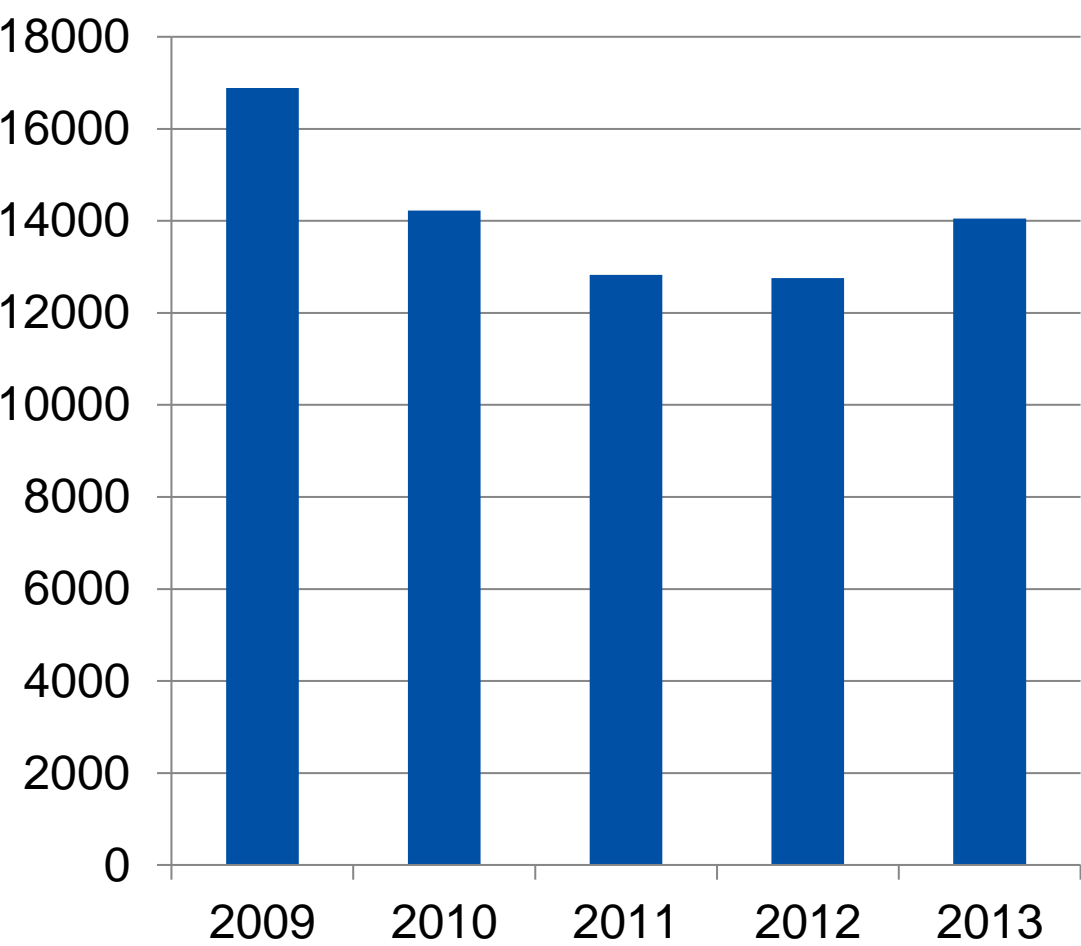




# Cat intake - Hillsborough County Animal Services



**ZIP 33612: -47%**



**Outside ZIP 33612: -17%**

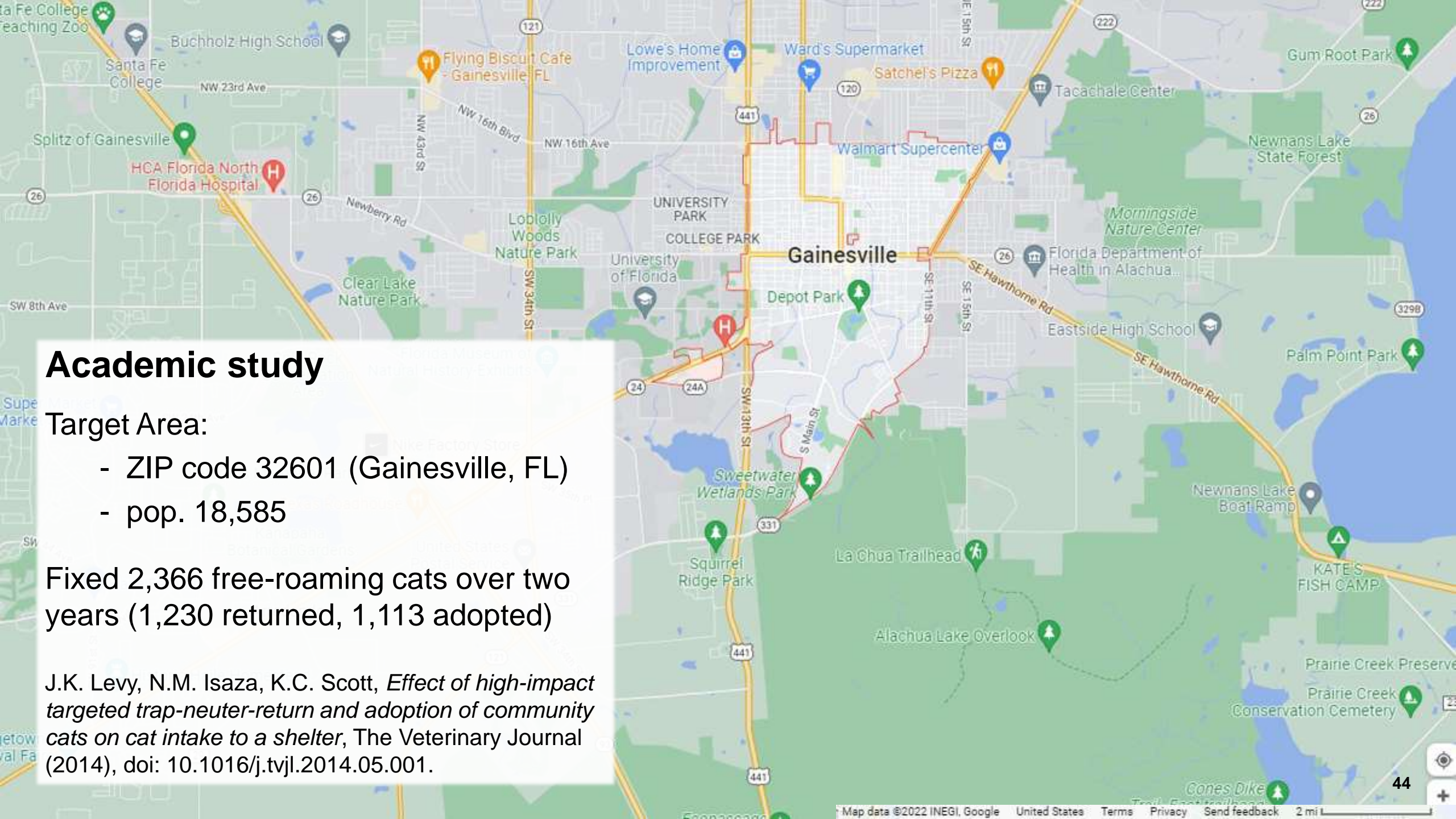
## Academic study

Target Area:

- ZIP code 32601 (Gainesville, FL)
- pop. 18,585

Fixed 2,366 free-roaming cats over two years (1,230 returned, 1,113 adopted)

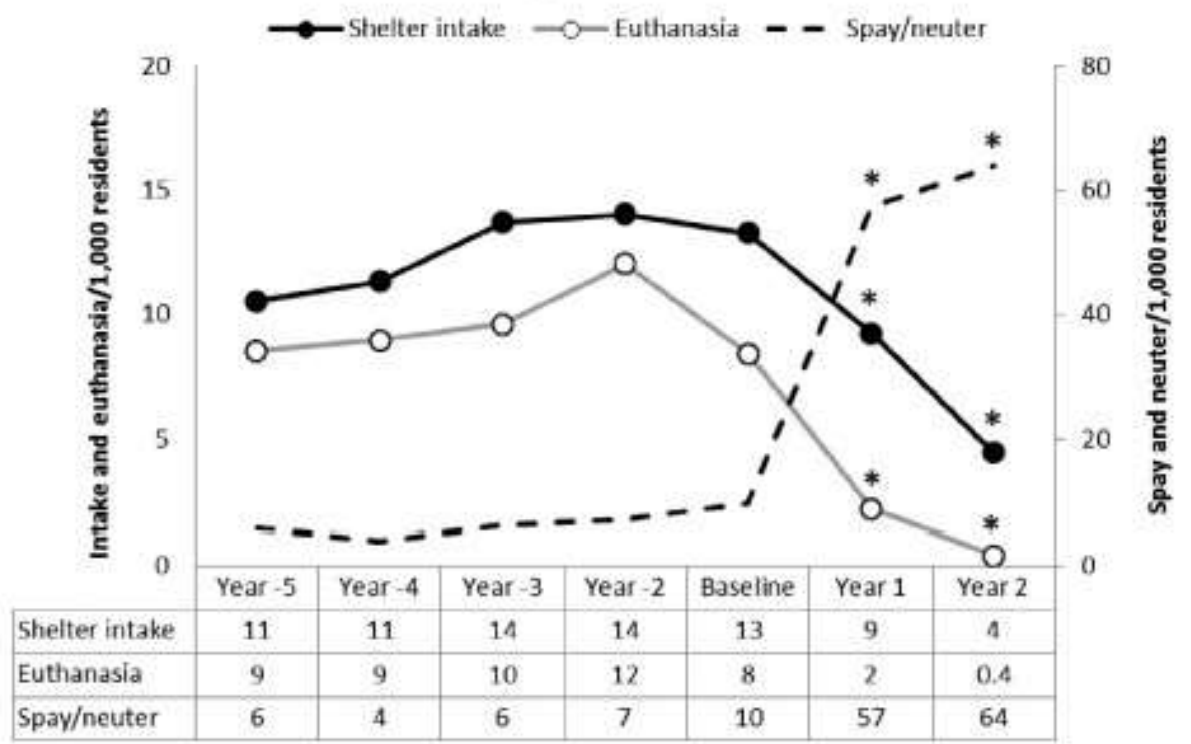
J.K. Levy, N.M. Isaza, K.C. Scott, *Effect of high-impact targeted trap-neuter-return and adoption of community cats on cat intake to a shelter*, The Veterinary Journal (2014), doi: 10.1016/j.tvjl.2014.05.001.





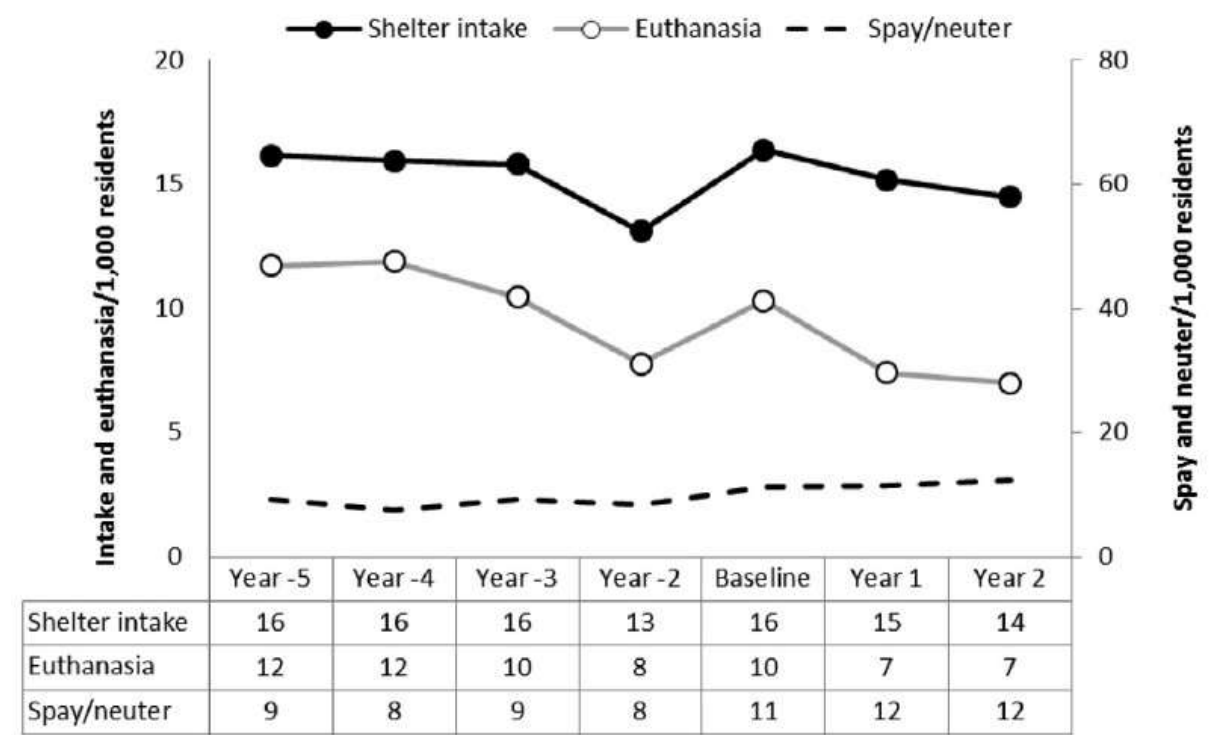
# Cat intake/euthanasia - Alachua County Animal Services

Target Area



**Intake from ZIP 32601: -66%**  
**Euthanasia from ZIP 32601: -95%**

Non-Target Area



**Intake outside ZIP 32601: -12%**  
**Euthanasia from outside ZIP 32601: -30%**

## Newburyport, MA

- Estimated 300 cats living on the riverfront in 1992
- All cats eventually TNR'd or adopted
- Last cat passed away in 2009

D. Spehar, P. Wolf, *An Examination of an Iconic Trap-Neuter-Return Program: The Newburyport, Massachusetts Case Study*, *Animals* (2017), 7, 81; doi:10.3390/ani7110081





## Tel Aviv academic study

- City of Rishon-LeZion (part of Tel Aviv metro area)
- pop. 240,666 residing in 9.65 square miles (25 sq. km)
- 12 year study: 2007 thru 2018

I. Gunther, et al., *Reduction of free-roaming cat population requires high-intensity neutering 3 in spatial contiguity to mitigate compensatory effects* (2021), <https://doi.org/10.1101/2021.12.02.470990> doi: bioRxiv preprint

## First phase: Pre-intervention period

### No TNR

- 2007 - 2009
- Data collection only





## Targeting half the city

- End of 2009 - 2014  
(10,925 s/n's)
- High intensity TNR in 50%  
(black), low intensity TNR  
in 50% (gray) – target  
areas randomly selected
- Sterilization rates:
  - High = 71%
  - Low = 33%
  - Overall = 51%
- Population change:
  - Overall growth of 26.5%
  - Stable in highest intensity  
areas (purple)

### Second phase: Mixed treatment period



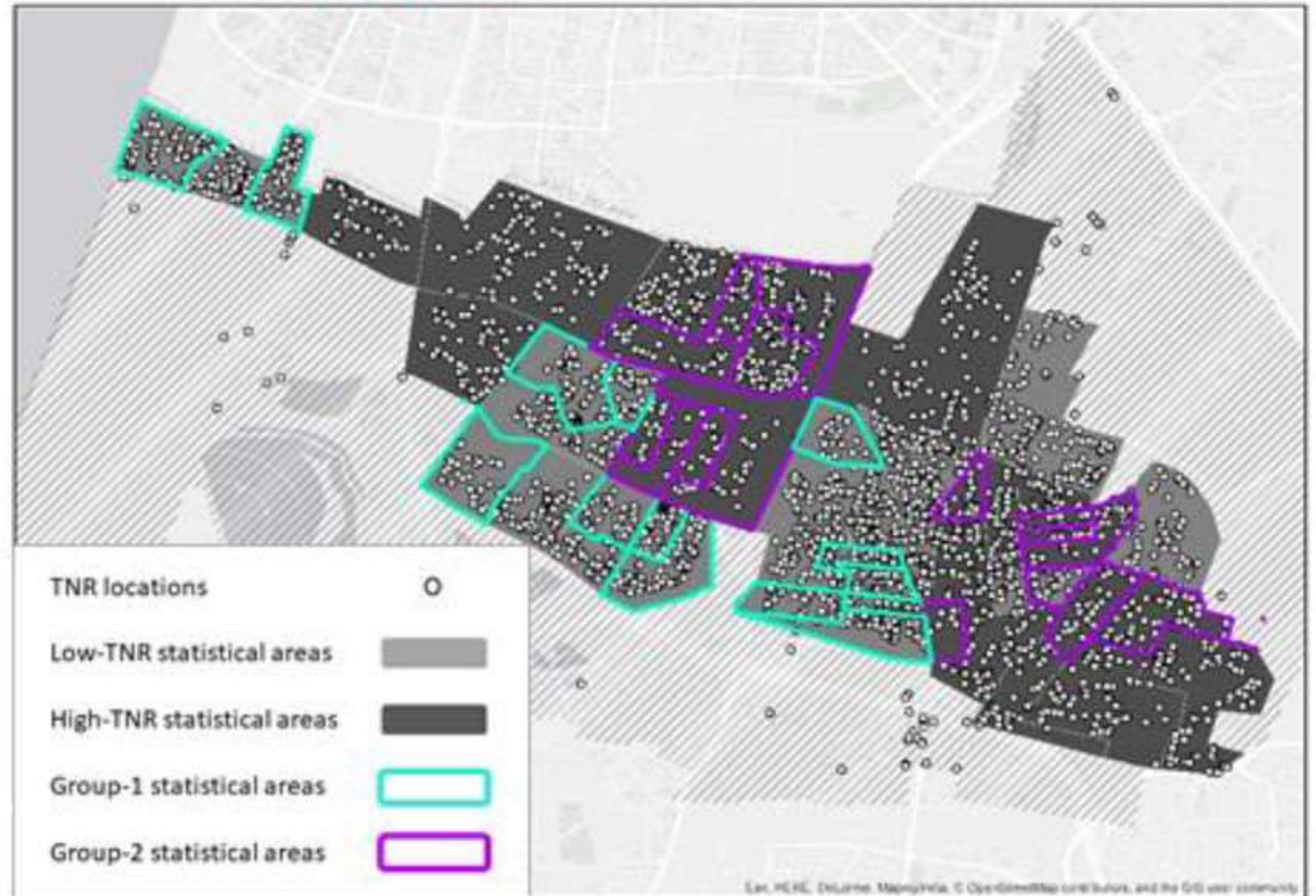
## Targeting entire city

- End of 2014 through end of 2018 (11,219 s/n's)
- High intensity TNR throughout
- Sterilization rate = 72%
- Population change:
  - Cats down 23%
  - Kittens stable

### Conclusion:

Spatial contiguity required when targeting to prevent immigration and reversal of population decline

### Third phase: Full treatment period





**Second phase:** Mixed treatment period

## Why didn't phase 2 work?

- Lengthy borders
- Immigration from low sterilization areas
- Reduced impact of surgeries in low sterilization areas





## Second phase: Mixed treatment period

### A better approach

- Minimal borders
- Reduced immigration
- All surgeries concentrated in target half of city (all or none instead of high or low)





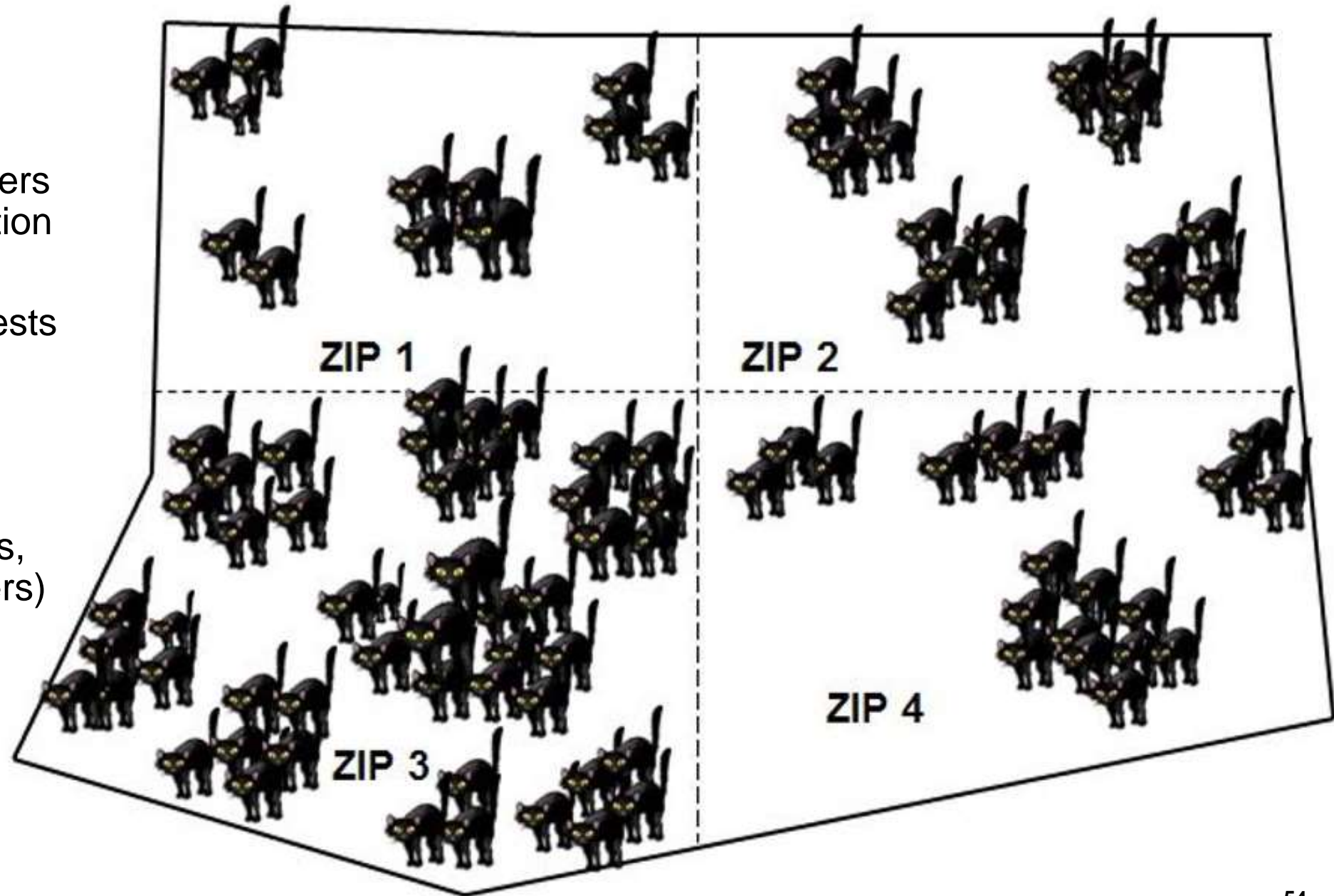
# CAT TRIVIA!





## Identifying a high need target area

- Intake into local shelters broken down by location of origin
- Complaint calls/requests for assistance by location.
- Tribal knowledge (experience of local animal welfare groups, animal control, shelters)

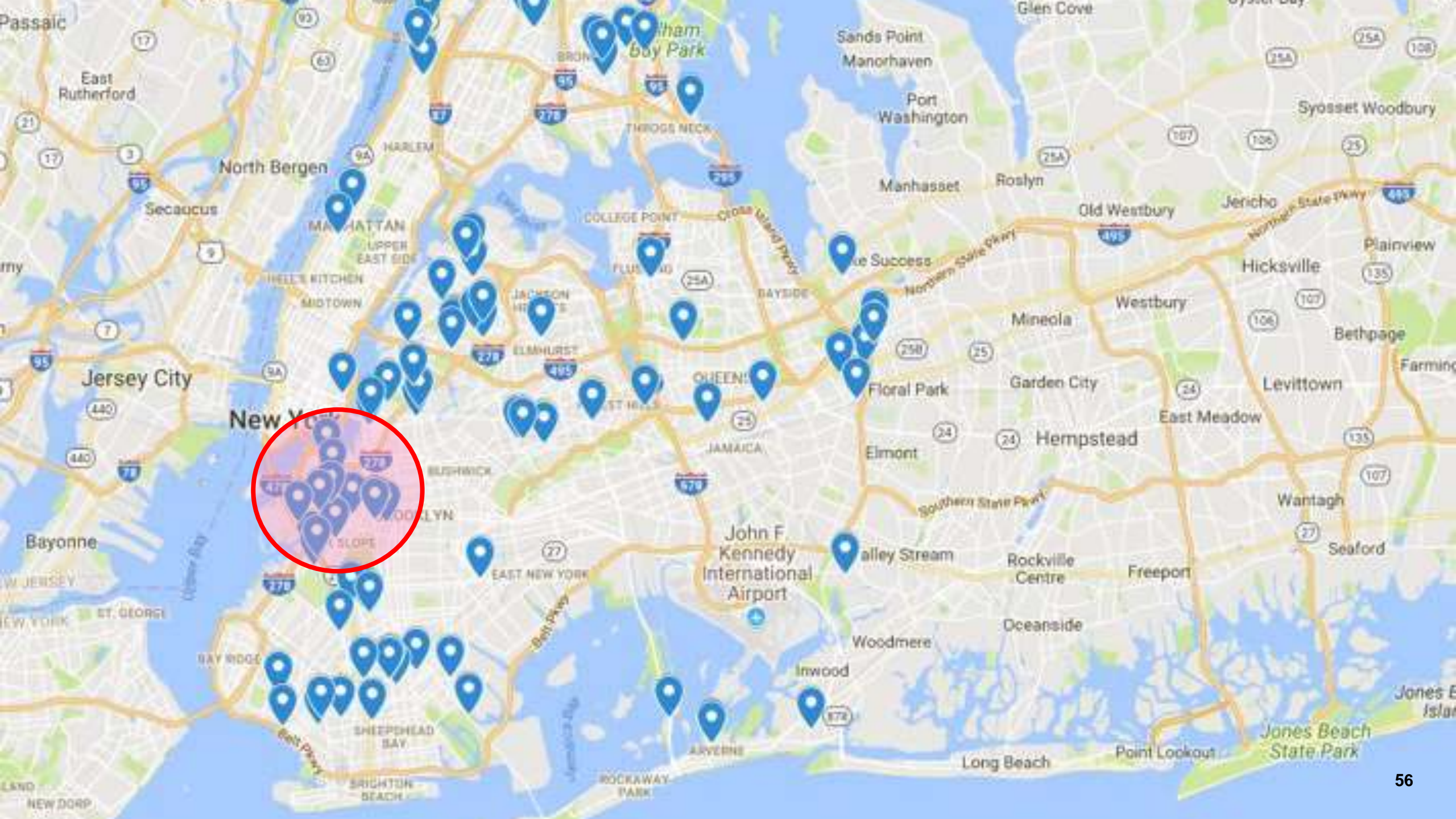






Mapping

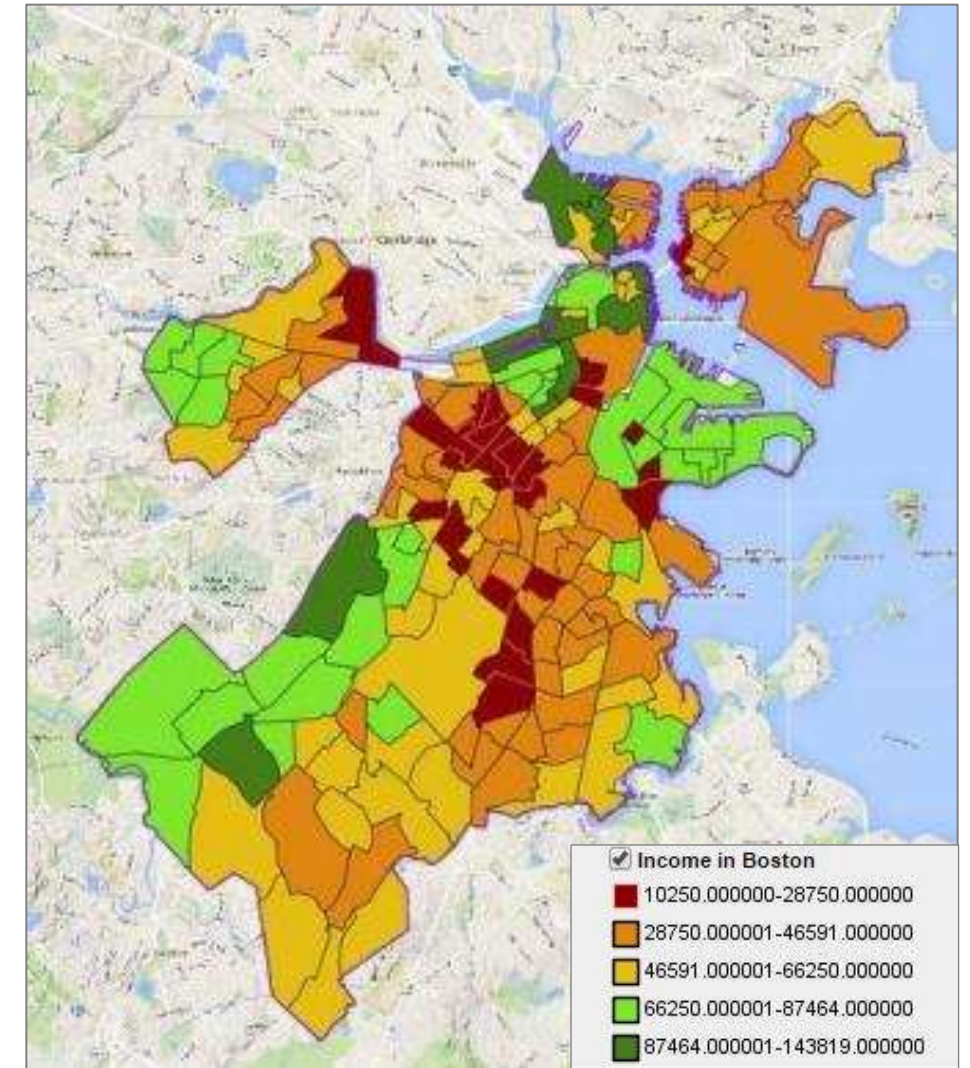
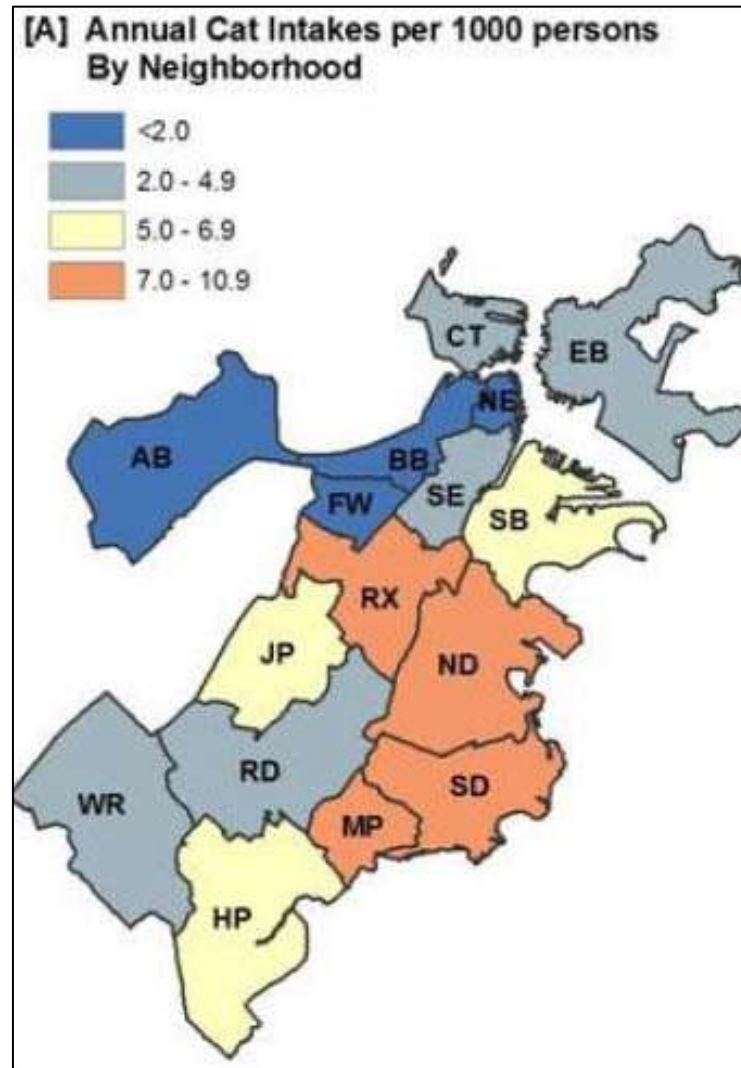







## Poverty & cat populations (Boston, MA)

Correlation found between cat intake and premature human mortality



Patronek, G., *Mapping and measuring disparities in welfare for cats across neighborhoods in a large US city* (2010) *American Journal of Veterinary Research* 71(2):161-8.



A photograph of a large group of cats of various breeds (orange, white, black, grey, tabby) and a few chickens (roosters and hens) on a dirt ground. The cats are scattered across the frame, some standing, some walking. A dark semi-transparent box is overlaid on the left side of the image, containing text.

## How many cats in the target area?

- 1) Divide human population by 15
- 2) More cats if:
  - rural
  - warm climate
  - no prior TNR
- 3) Fewer cats if:
  - urban
  - cold climate
  - lots of prior TNR

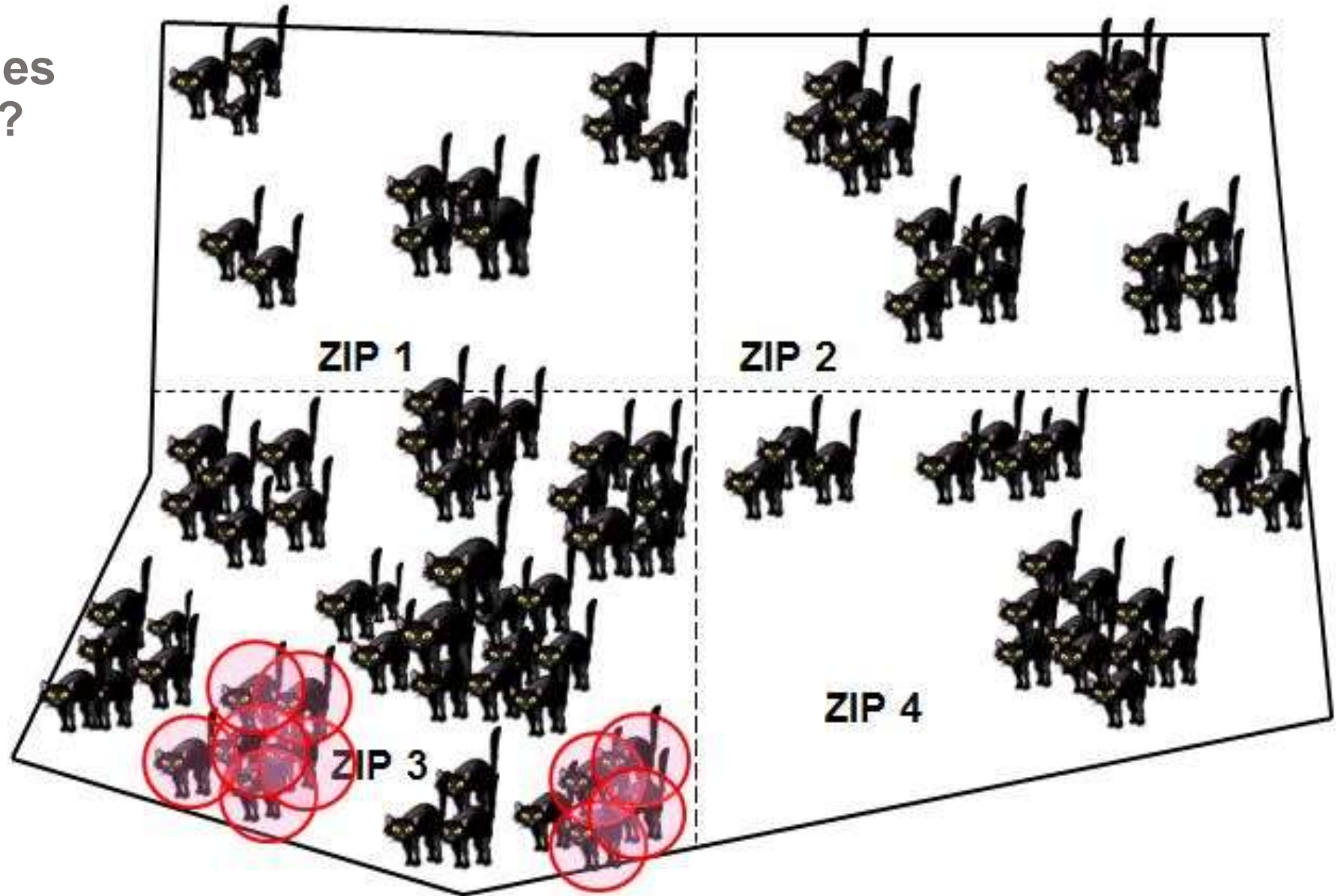


## How many surgeries?

- For high impact, need to alter a “substantial percentage” of the cats
- Aim for 50% or above of estimated population
- Proceed a colony at a time, as close to 100% as possible at each

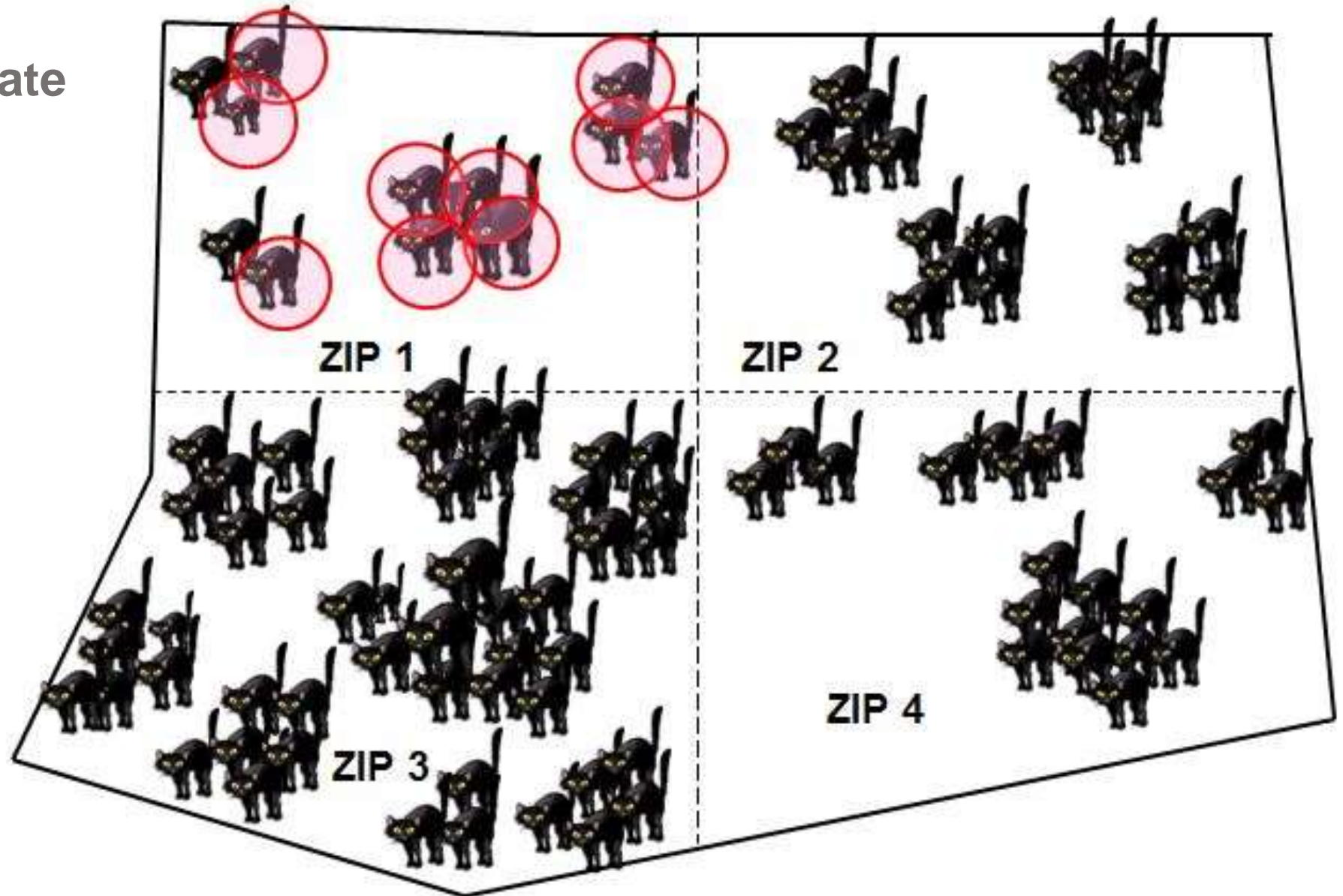


Too few surgeries  
for high impact?





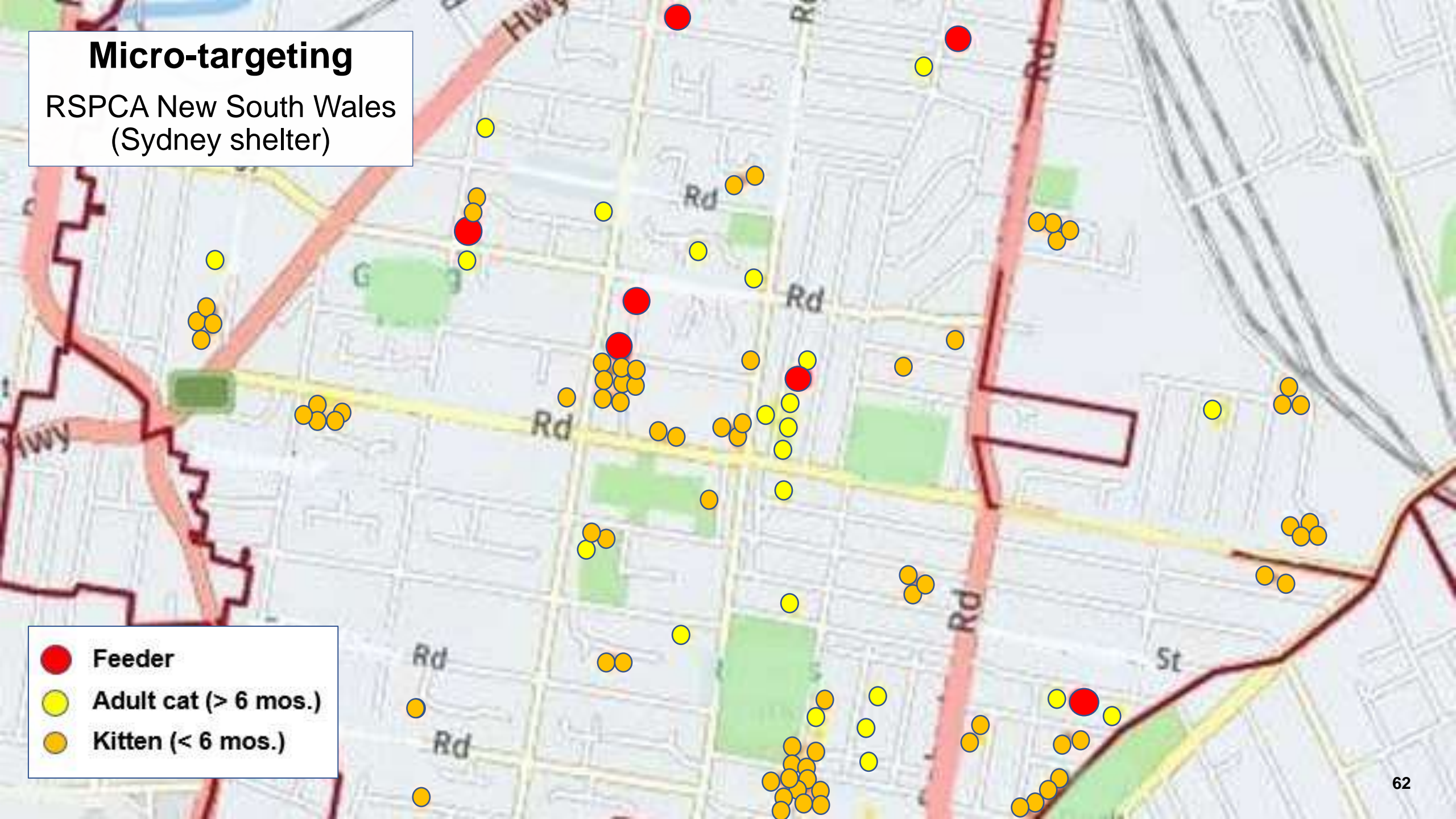
Select appropriate  
size target area



## Micro-targeting

RSPCA New South Wales  
(Sydney shelter)

- Feeder
- Adult cat (> 6 mos.)
- Kitten (< 6 mos.)



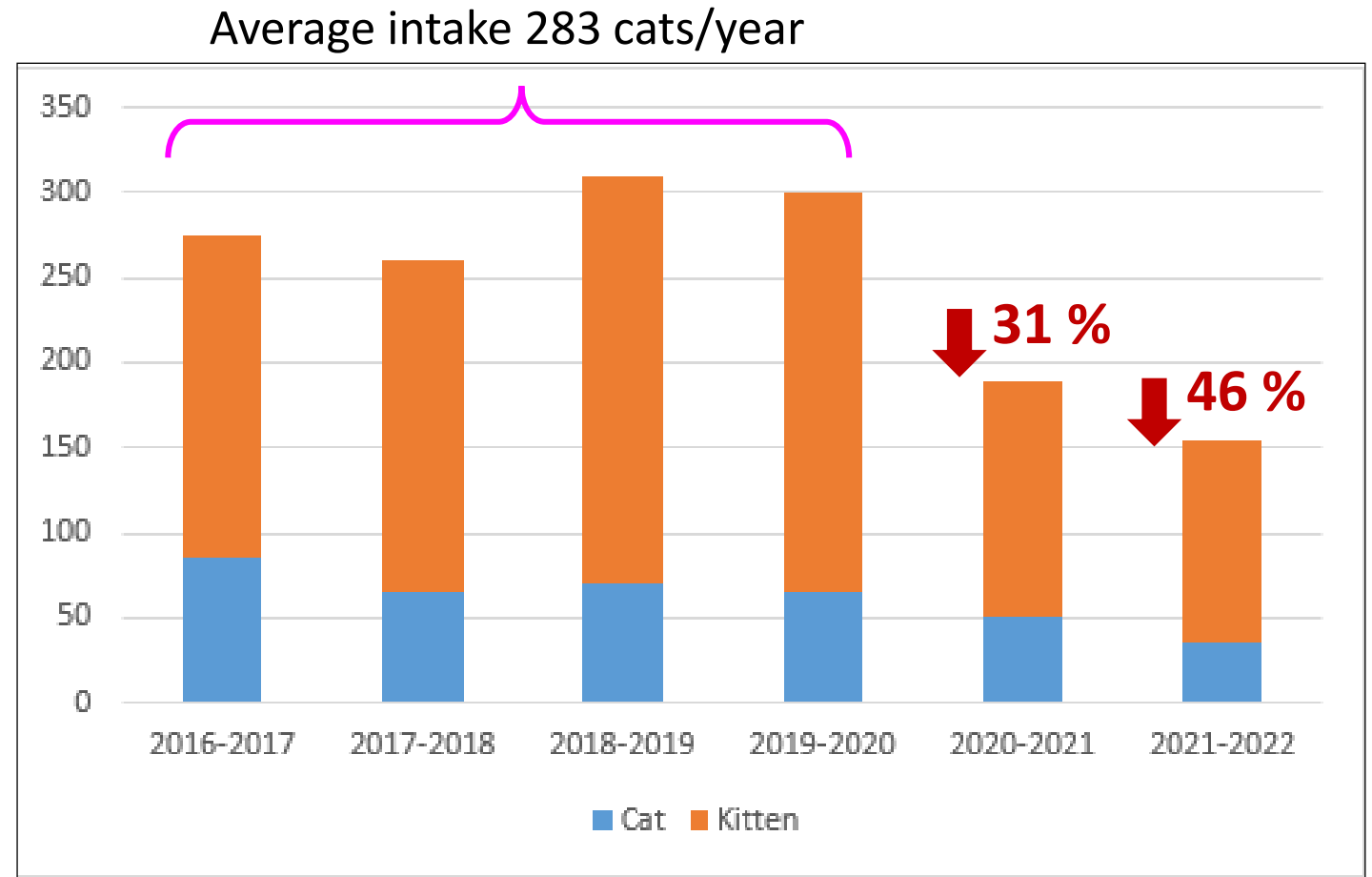


## Greenacre:

- Altered 8 cats/1000 pop. in 2 years
- Intake down after 12 months by 31%, after 24 months by 46%
- Intake flat elsewhere

## Compare:

- Gainesville – 127 cats/1000 over 2 years, intake down 66%
- Tampa – 60.5 cats/1000 over 2 ¼ years, intake down 47%





## General media

- TV, radio, press
- Website, social media

## Targeted media

- Billboards, yard signs
- Door hangers, post flyers
- Postcard mailings, utility bills

## Boots on the ground

- Door knocking, walk-and-talk, tabling
- Community meetings, block parties, vaccine or wellness clinics
- Food, shelter giveaways



## Know your community

- Income level
- Ethnicity
- Language
- Culture (esp. re: cats, spay/neuter)
- Business or residential
- Local leaders/influencers





## Gather intel about the cats

- Who's feeding?
- When and where?
- How many cats?
- Colony history (how and when did the colony start? Prior trapping? Trust issues?)
- What is the general attitude towards the cats? (hostile, protective, mixed?)







## Who does the trapping & field work?

### NO:

- only residents and caretakers in the target area

### YES:

- staff, experienced volunteers and/or partner TNR groups
- support from local residents and caretakers



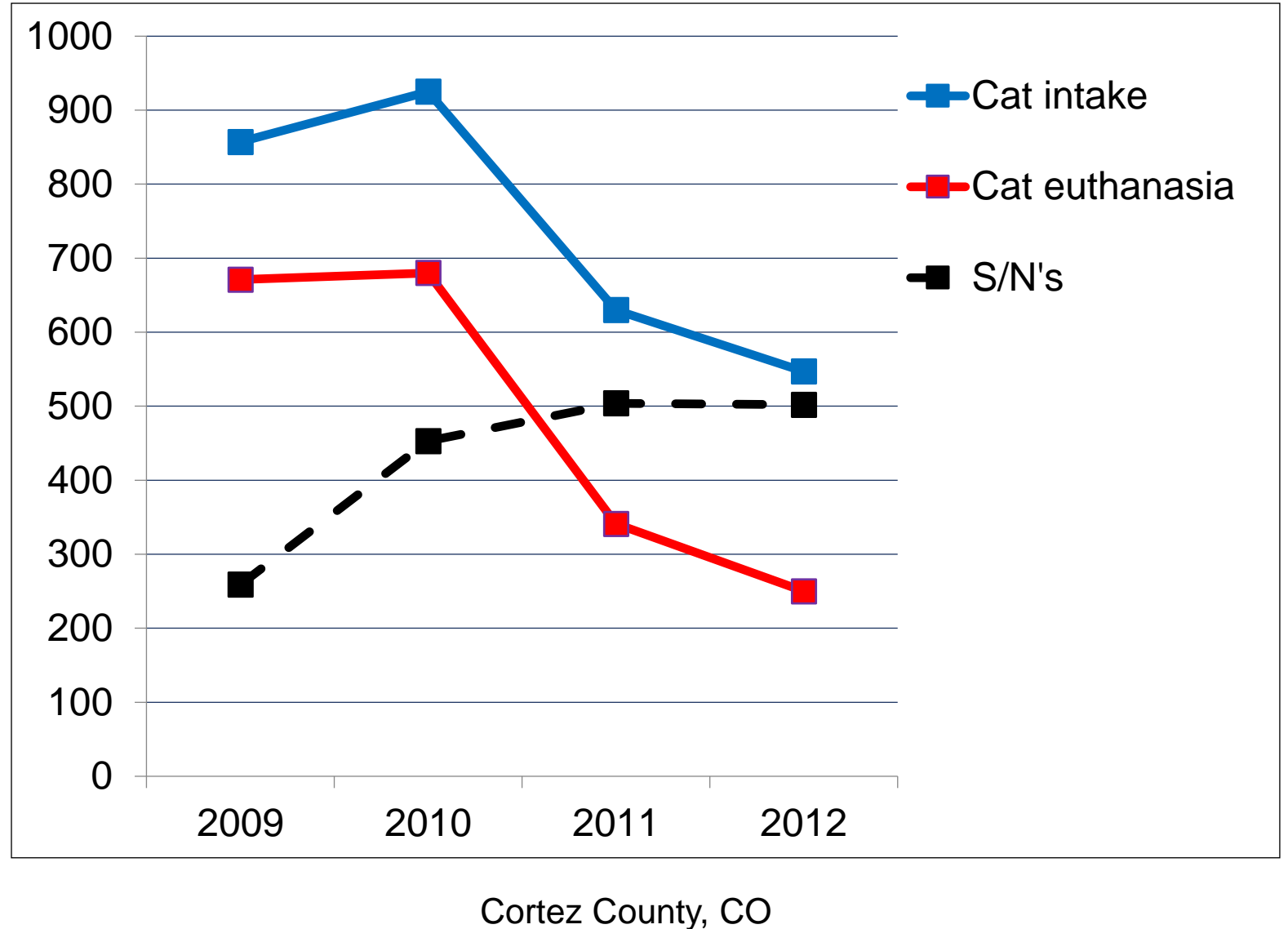
## Tracking impact

### Direct outcomes:

- Census (absolute vs. directional)

### Indirect outcomes:

- Intake (cat, kitten, stray)
- Euthanasia
- Complaint calls and/or requests for assistance
- Online kitten postings





# Why track?

- Are you achieving your goals?
- Do you need to adapt?
- What to do if you run out of cats?







comm ch18

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[www.communitycatspodcast.com/community-cat-care-training-education/](https://www.communitycatspodcast.com/community-cat-care-training-education/)



# TNR CERTIFICATION



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2:00-4:45 PM ET**

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**Tuesday, June 13  
2:00-4:45 PM ET**

[Register](#)



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