



Feline Influenza

A Shelter Operations Perspective



New York City H7N2 Feline Influenza Outbreak

Dr. Sandra Newbury
Director
UW Shelter Medicine

Primary partners:

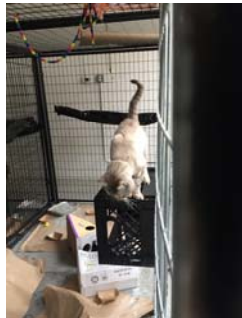



Aurora Velazquez
Sr. Director, Animal Care
& Community
Engagement




Thanks!

- Maddie's Fund
- ASPCA
- NY State Department of Agriculture
- NYC Department of Health
- USDA
- CDC
- All my staff at UW
- Cornell – Shelter Medicine
- Cornell Animal Health Diagnostic Center
- Tufts – Shelter Medicine
- Missouri – Shelter Medicine
- WVDL
- Blue Pearl and VERG South veterinary clinics in NYC
- Everyone who turned out for these cats!





- ◆ Described as Open Admission
- ◆ 3 Shelters, 2 Admission Centers
- ◆ City Contract - servant to community. Open 24/7
- ◆ All Animals
- ◆ Annual Intake - 30,000
 - ◆ 19,000 cats
 - ◆ 9,500 dogs
 - ◆ 1,500 other





A Perfect Storm....

- ◆ 343 Dogs
- ◆ 631 Cats
- ◆ Operating over our capacity for care - space and staff
- ◆ Compassion Fatigue
- ◆ Unrealistic Expectations




NYC Animal Care Centers

- Mimi
- Passed away Nov. 25th, 2016
- Identification of presumptive H3N2 on December 1st, 2016
- Dr. Robin Brennan contacts UW Shelter Medicine

NYC Animal Care Centers

- What questions should we ask?
- What do we want to know about other species in the shelter?
- What do we want to know about the diagnostics that were done?
- Is further testing possible?



Findings

- Some sick dogs in the shelter –moderate concern
- Many sick cats in the shelter
- Commercial lab
 - Idexx Laboratories
 - PCR specifically targeted to H3N2 and H3N8
- Sample submission sheet had been accidentally marked as canine
- Mimi's cadaver was still in the shelter

Something doesn't fit



UW / WVDL diagnostics – H7N2 LPAI

- Mimi
- Sampled other cats
- Continued sampling of dogs
- Influenza A broad based testing
- Followed by typing – H7 identified
- **Reporting – Risk to agriculture**
- Confirmation and sequencing through USDA – H7N2 low path avian influenza



H7N2 LPAI Identified

- Circulated in live bird markets 2000-2006
- Thought to be eradicated



Time line

- 11/12/16 Mimi enters the shelter
- 11/14/16 Mild ocular discharge
- 11/23/16 Breathing problems
- 11/25/16 Rapidly declining – euthanized
- 11/25/16 samples submitted to Idexx
- 12/1/2016 - Identification of presumptive H3N2
 - Dr. Robin Brennan contacts UW Shelter Medicine



Follow up / Intervention planning - Collaboration

- Population survey – diagnostic testing
 - Large populations in two shelters
 - Smaller group in SI
 - Wave of infection moving through the feline population rapidly
 - Other species consistently testing negative
- NYCACC
 - USDA
 - State Veterinarian
 - New York City Public Health
 - Other agencies
 - Maddie's Fund



Intervention / Containment planning

- Avoiding depopulation
- Quarantine?
- Evaluating risk
- Potential cost?
- Transition plan
 - Stop potential spread
 - Quell panic
- Tracing potential spread / other cases
- Offering free diagnostics
- Confounding factors
- **ASPCA** steps into collaboration



Human health?

- Only two previous human cases reported
 - Testing for over 350 exposed people
- 1 weak positive
 - Test negative the next day



Epidemiology? Index case? Revised Timeline

- Alfred
- **10/26/16** shelter intake
- 10/31/16 neuter / adoption
- **11/4/16 illness**
- 11/7/16 to emergency center
- 11/12/16 dies
- 11/12/16 **Mimi** enters the shelter
- Exposure?



Other shelters, other cats?

- 2 additional shelters
 - NYC
 - Long Island
- Several cats in private homes
- Cats in rescue homes
- **All other cases connected to NYCACC case**



Establishing quarantine

- Over 500 cats infected and required quarantine
- Unanswered questions about course of disease and defining cure
- Length of quarantine?
- Safety for workers?
- Treatment options?



Outcome

- Shedding period defined through extensive testing and follow up
- Seroconversion – Cornell university
- No new cases or positive tests reported since February 5th, 2017
- Vast majority of cats recovered
- Did we win?



I think we won!

- Only time will tell about the virus
- Lots of changes at NYCACC

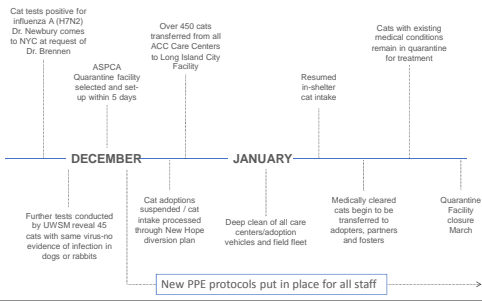




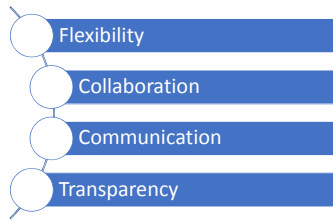
Feline Influenza

A Shelter Operations Perspective

FELINE INFLUENZA

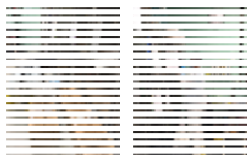


TACKLING THE CRISIS



TACKLING THE CRISIS

Flexibility | Collaboration | Communication | Transparency



Segregation of staff

- Daily Operations**
- Total segregation of staff
 - Enhanced PPE
 - Staff assignments
 - PPE
 - Intakes
 - Communication, Communication, Communication

TACKLING THE CRISIS

Flexibility | Collaboration | Communication | Transparency

Admissions Process

- Relocated admissions process to our mobile adoption units
- Independent work assignment
- Heavy collaboration with New Hope



TACKLING THE CRISIS

Flexibility | Collaboration | Communication | Transparency

Leadership

- Management essentially working 24 hours
- Utilizing leadership in one location to get others up to speed



TACKLING THE CRISIS

Flexibility | Collaboration | Communication | Transparency

Internal messaging

- Daily conference calls
- Dec. 14th – Dec. 28th (30+ calls)
 - Videos for quick compliance training
 - Hands on training, utilizing personnel in new ways
 - 2x daily staff meetings

Partnerships

- Jan. 16th – Jan. 31st (daily check in w/quarantine site)
- Feb. 1st – Feb. 27th (biweekly check in w/quarantine site)



TACKLING THE CRISIS

Flexibility | Collaboration | Communication | Transparency

Organizations

- NYCDOH+
- UW
- Maddie's
- ASPCA
- USDA
- CDC



Key Component: Point People

- Organizational leaders
- Medical decisions
- Inventory/logistics
- Placement

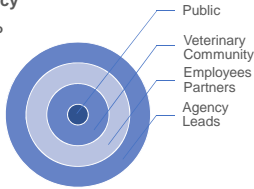
TACKLING THE CRISIS

Flexibility | Collaboration | Communication | Transparency

Messaging by constituency

Open and honest but on a need to know basis

- General public gets broad overview – DOHMH
- Veterinary community and other stakeholders are directed to UW for specific veterinary oriented press releases
- Primary stakeholders – adopters, rescue partners, staff, etc. are given all information as it becomes available



TACKLING THE CRISIS

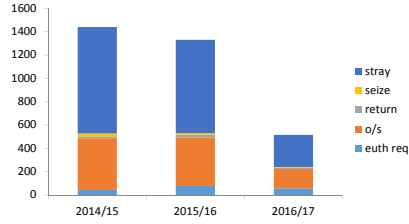
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TACKLING THE CRISIS

Flexibility | Collaboration | Communication | Transparency

Effect on Intake



LESSONS LEARNED

Source of Problem

- Chronic overcrowding
 - Cage capacity was 477
 - Normal population was 740
 - Highest populations routinely 810



NEW PROTOCOLS

Intake Options

- Intake by Appointments
- Tools for Rehoming
- New approach to community cats



How to Bring A Pet to ACC

- You'll need to schedule an appointment to bring in your animal so that ACC can provide you the best and fastest service.
- Wait for our call. This is important. Though we know you may feel you have to surrender your pet right away, ACC works very hard to ensure that we have the time and space for new animals before they come in. Bringing your pet in without an appointment can result in stress for your pet, a longer stay in the shelter, and may even negatively affect his or her chances of being placed.

NEW PROTOCOLS
Community Cats

You found a stray cat. NOW WHAT?

Is the cat sick, injured, or in immediate danger? YES
..... NO

bring the cat to ACC.
..... NO
Leave the cat alone. This is a community cat and cube has learned to live outside.


He has lived in a home, he can't survive outside

I FOUND KITTENS IN CALL US MY YARD.

If the kittens eyes are closed and/or unable to walk and they are quiet, leave them alone. Mother is near by feeding food and could be gone for several hours. If the kittens are meowing, take a good distance away (30 feet or more) and check to see if the mother arrives. If the kittens are still meowing after several hours and there is no sign of the mother, collect the kittens, keep them warm, and bring them to ACC.

If the kittens eyes are open and the kittens are able to walk, leave them alone. The mother could be gone for a whole day before returning to her kittens. If the kittens health looks in poor condition or you can confidently say that the mother has

NEW PROTOCOLS AVS
House & Husbandry: Spot Cleaning



NEW PROTOCOLS
Housing & Husbandry: Cage Portals



THANKS TO MADDIE'S FUND ACC CATS ARE ENJOYING BRAND NEW PORTALS!

Slide 37

AV6 messaging and managing intakes

Aurora Velazquez, 4/14/2017

Slide 38

AV5 housing and husbandry chages

Aurora Velazquez, 4/14/2017

NEW PROTOCOLS

Population Management

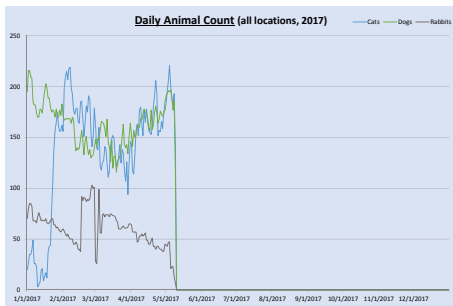
- Fast Track
- Open-selection



NEW PROTOCOLS

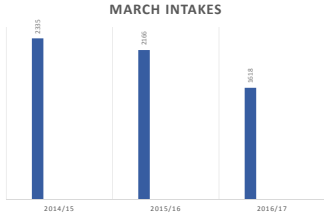
Daily Population Call





NEW PROTOCOLS

Results!



STATE OF THE SHELTER

Keeping population in check

CAT ONLY	March 2015	March 2016	March 2017
Average Daily Population	375	318	190
Live Release Rates	93.70%	94.40%	97.10%
Euthanasia Rates	6.30%	5.60%	2.900%

STATE OF THE SHELTER

Keeping population in check

- Current capacity: 497
- Current population 382



LOOKING AHEAD

- Summer 2017
 - No more crates!
 - No more crowding!



We did it!

QUESTIONS??

Need help?

Please contact us:

uwsheltermedicine@vetmed.wisc.edu