Table 1

2015	May	June	July	August	September	October	November	December
Animal Intake Data								
Kittens < 8 weeks								
Kittens 8-16 weeks								
Kittens 16 weeks - 12 mo								
Cats 13 months - 5 year								
Cats 6-10 years								
Cats 10+ years								
Puppies < 8 weeks								
Puppies 8-16 weeks								
Puppies 16 weeks to 12 mo								
Dogs 13 months to 5 years								
Dogs 6-10 Years								
Dogs > 10 years								
# spayed/neuter cats > 6 mo								
# spayed/neutered dogs > 6 mo								
# O/S Cats								
# O/S Dogs								
All Rabbits								
Other - small animal								
Other Large Animal								
Intake by zip code								
Intake by subtype								
Return Rate								

Magical Metrics and Dazzling Data
A.K.A., Using Data to Improve Health in Animal Shelters

J.M. Scarlett, DVM, PhD
Director, Maddie's Shelter Medicine Program at Cornell University

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Shelter Metrics: Oh no!!!!

Some thoughts regarding data collection

- Data collection is time-consuming and expensive.

- Don't collect data for their own sake.

Collect data that will improve the health of animals in your shelter (i.e**.,** *influence thinking and actions* in the shelter).

Be thoughtful and parsimonious.

Thoughts . . . .

- The data that you do choose to collect must be *accurate and complete.*

- *Train,* periodically *retrain,* and *reward* staff for collecting data well.

How can data be used for medical purposes?

For individual animal care; for example,

- Scheduling vaccinations, surgeries, wormings, treatments
- Review the medical record electronically
  - Change treatments
  - Review history
- Adherence to protocols: (E.g., Monitoring dose, frequency and duration of treatments)

How can data be used for medical purposes?

For Population Health

- Disease Surveillance
  - Evaluate trends
  - Dx outbreaks
  - Assess disease burden

- Monitor the effectiveness of health-related protocols / changes / treatments
- Identify high risk groups
- Identify high risk time periods
- Identify factors contributing to disease
- Monitor disease-related deaths
- Setting and monitoring progress towards goals

Other uses of medical data

- Motivation of staff

- Reports to management

- Justification for more funding

- Ordering medical supplies

Objectives today

- Encourage you to think about how to use your medical data more extensively to improve the health of your shelter populations
- Share data-use examples that could enhance health care in your shelter
- Demonstrate calculation of prevalence and incidence metrics
- Share some insights relating to use of your data

Managing health

Of Individuals	Of a population
Physical exam (Look for disease signs)	Identify the diseases present Assess their frequency Calculate overall disease and mortality rates
Run diagnostic tests	Characterize disease rates by age, length of stay, neuter status, etc. (formulate and test explanations)
Plan for treatment	Plan for changing or enhancing adherence to protocols
Treatment Monitor effectiveness	Make changes Monitor effectiveness
Recommendations to prevent this disease in the future or for provision of ongoing care	Recommendations to sustain the changes or make new recommendations

Focus on today

- Establishing the baseline frequency of disease in your shelter
- Disease surveillance
  - Evaluation of disease trends
  - Outbreak recognition and investigation
  - Evaluate effectiveness of protocol changes
- Identifying risk groups, time periods
- Assess the shelter disease burden
- Monitor medical reasons for euthanasia
- Health goal setting and monitoring
- Sharing thoughts/insights

Baseline Frequency of Disease

(or taking the "pulse" of the population)

Remember . . . .

Incidence metrics measure the probability of *developing* disease (or other events).

Prevalence metrics measure the probability of *having* disease.

Choice depends on your question(s).

Types of disease and their frequency in a shelter: 2010

Disease / sign	Cats		Dogs	
	No. of cases	% affected	No. of cases	% affected
Coccidia	46	2.9	24	3.6
Giardia	22	1.4	56	8.3
Heartworm			3	0.4
Sarcoptic mange			8	1.2
URI	249	15.8	8	1.2
FeLV	15	1.0		

Disease surveillance

(ongoing monitoring of disease frequency)

Why?

- Monitor trends over time
- Identify outbreaks
- [Share this information with staff, management and Board members]

Evaluate disease trends over time

Frame your question(s) thoughtfully

- The metric(s) you want to use will be determined by the question(s) that you pose.

- Take time and think through what you most want to know.

Let's look at a shelter's data

Category	2010	2011
Total Intake	1580	1521
Still in shelter on 1/1	216	143
Had URI on 1/1	14	2
Had URI in previous year	26	8
Tested positive for FeLV	34	33
Tested for FeLV	1138	1193
Had URI this year	291	272
Entered the shelter with URI	60	65
Diagnosed with URI in this year	217	205

Example 1

- Has the annual period prevalence of FeLV infection changed among cats entering the shelter between 2010 and 2011?
  - Need data regarding test result for FeLV and date of test result for 2010 & 2011.

Number of cats testing positive for FeLV
Number of cats tested for FeLV
(X 100) to get the %
during 2010 and during 2011

Calculation

2010	**2011**
Among cats that were tested	Among cats that were tested
34/1138 = 3.0%	33/1193 = 2.8 %
Prevalence of cats testing positive for FeLV	Prevalence of cats testing positive for FeLV

Example 2:

- Has the annual period prevalence of feline URI declined in 2011 compared to 2010?
  - Need data regarding :
    - the number of cats with the diagnosis of feline URI
    - the date of each diagnosis of URI;
    - the number of cats *at risk population for having URI*

in 2010 & 2011

Whose at risk of having URI in a year?

- Those present on January 1
- Those entering the shelter throughout the year

Intake → + In shelter on January 1

Shelter

So, who is counted in your intake numbers?

- Owner surrendered cats
- Stray cats
- Adoption returns
- Cats transferred in
- Seizures
- [Service-in: might include special programs such as temporary hold for animals of battered women]
- [Clinic-in: might include S/N, TNR]
- [DOA, others?]

Intake categories (2011)

- These categories are in the set-up in your software

Category	Number of Cats	% of Intake
Owner surrender	850	55.9
Stray	509	33.5
Returned adoption	108	7.1
Transfer-in	9	0.6
Seized	25	1.6
Service-in	20	1.3
Total	1521	100

Calculating period prevalence

- Number of cases of URI (numerator)
  - 2010: 291   2011: 272
- Intake of cats*
  - 2010: 1580   2011: 1521
- Cats still in shelter at beginning of 2010 & 2011
  - 2010: 216   2011: 143

  * All cats spending time in the shelter were counted (including service-in and seized)

Comparison of period prevalence estimates for 2010 & 2011

2010	2011
Period prevalence:	Period prevalence:
291/(1580+216) = 16.2%	272/(1521+143) = 16.3%

Ask a question about incidence

- Getting the appropriate data gets trickier

  - Now asking about the risk (or probability) of getting sick (or developing a complication, a particular outcome, etc)
    - Numerator includes animals that are experiencing a "case" of disease for the first time in the period of interest
    - Denominator includes animals that are "at risk" of developing disease (or event)

Example 3:

- Has the <u>annual</u> incidence of feline URI declined in 2011 compared to 2010?
  - Need data regarding :
    - the number of cats that *developed* URI
    - [the date of each diagnosis of these cases of URI]
    - the number of cats *at risk population for developing URI*

      in 2010 & 2011

What cats are not *at risk of developing URI* in a given year?

Among those cats *still in the shelter* on January 1
  - those that had URI in the previous year
  - those that have URI on Jan 1.

- Data regarding multiple infections, either sequentially or concurrently [are animals at risk of getting developing a second case of the disease?]

?

What other cats are not *at risk of developing URI* in a given year?

Among those cats that enter the shelter in a given year
  - Those that entered with URI
  - [Those that develop URI in the first ~ 3-5 days]
  - [Those that are euthanized immediately – how should immediately be defined?]

So . . .

In the shelter with 1580 cats entering in 2010, remove the 60 that entered with URI; in 2011 remove 65 from 1521;

Calculations:

Population at risk (2010)

- 216 in shelter on 1/1 – (26 that had URI the previous year + 14 that currently have URI)
  = 176 at risk on 1/1/2010
- 1580 cats enter the shelter – 60 that entered with URI = 1520 at risk during yr

  or   1696 (1520+ 176) cats at risk in 2010 of developing URI

[REPEAT PROCESS FOR 2011]

Calculations

New cases :If 291 cats had a diagnosis of URI, then identify of those, which developed their URI in 2010 and remove those that had URI on Jan. 1

291 – [14+60] = 217 new diagnoses of URI in 2010

[REPEAT PROCESS FOR 2011]

Calculation of annual cumulative incidence for 2010 & 2011

2010: 217 / 1696 = 12.8%

2011: 205 / 1589 = 12.9%

Other animals that might not be at risk?

- If, after their intake examination, cats are immediately euthanized, depending on your question, you will probably want to remove them from the population at risk.

- Transfers [if transferred immediately??]

- Others?
  Depends on your question!

So, to make matters more complicated . . .

Using cumulative incidence may *not* be OK.

In epidemiologic research, incidence density metrics would be used.

- Number of new cases of URI (numerator)
  Same approach as we just discussed

- Denominator uses the *care-days at risk*
  - Epidemiologically, the <u>method of choice</u> for populations where animals are entering and leaving frequently


I.D. Number of Cats Affected

I.D.	1-Sep	1-Oct	1-Nov	1-Dec	1-Jan
015		Sick			
092					
002					
051					
032					Sick
017			Sick		
064					
047					
083					
075					
011		Died			
025					
077					
029					
093					
054					

Intake+SIS Based Monthly Cumulative Incidence of Feline URI : 2010

Monthly Incidence Density Rates of URI: 2010
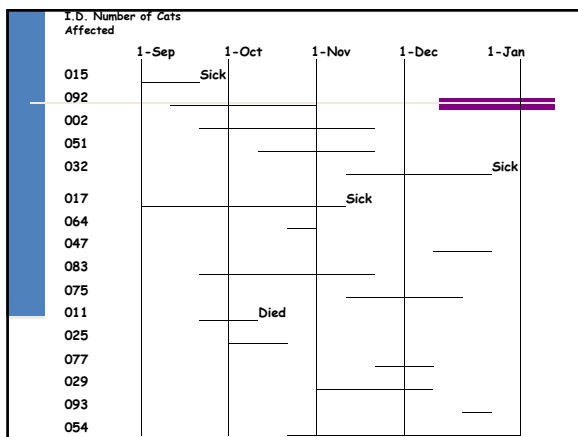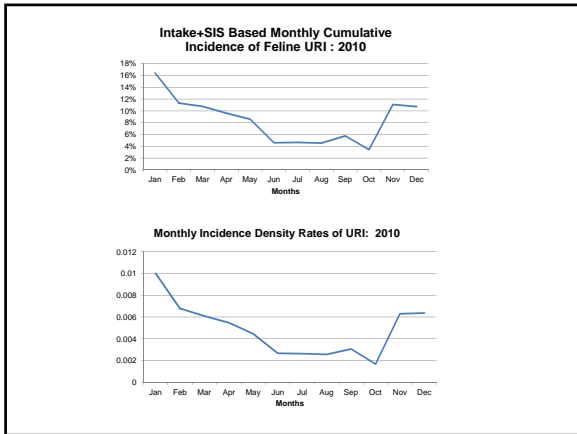
Proportion and rates with URTD

	Litters (n=701)	Ind. Kittens (n=531)	Cats> 7 mos (n=2,203)
Percent	33	26	30
Rate/100 cat-days	6.7	6.2	5.6

Incidence of URTD by Age and Time in the Shelter
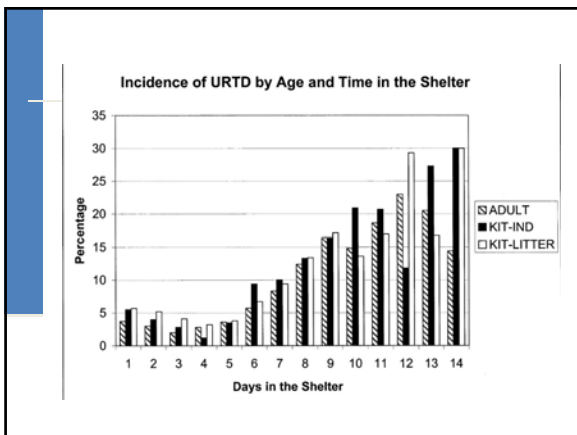
URI cumulative incidence by month: January 2010 – June 2011
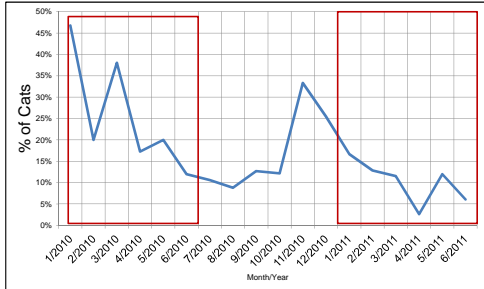
Incidence of URI by Season and Median LOS
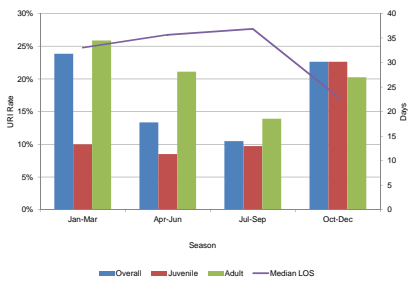
Identify and Investigate Outbreaks

Variation on outbreaks

- Canine distemper

- Feline URI

- Incision infections

History

- In the late fall of 2008, a call came in to the shelter medicine program at Cornell from a veterinarian working in a large urban shelter.

- He was convinced that he had an outbreak of incision infections in the shelter. Many more cats (but not dogs) were developing infections at their spay incision sites and he wanted to understand why and, of course, how he might reduce their frequency.

Comparing the number of incision infections over time
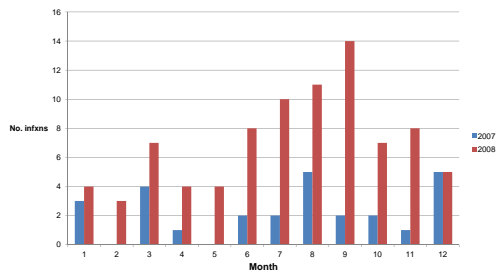
Comparing monthly attack rates of incision infections over time
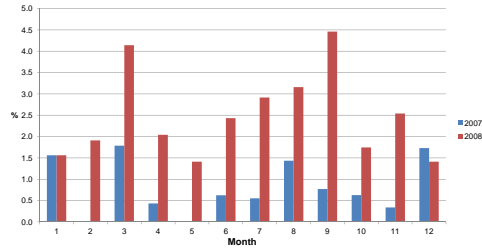
Descriptive data: attack rates over time
July 2008 - Nov. 2008

Month	No. Infections	No. of Spays	Attack Rate (%)
July	10	343	2.9
August	11	348	3.2
September	14	314	4.5
October	7	401	1.7
November	8	315	2.5
	50	1721	2.9

Additional history and observations

- Large urban shelter handling ~10,000 dogs and cats annually
- Open admission
- 2 3/4 veterinary FTEs
- 7 LVTs
- Perform ~ 3400 cat spays per year

- Veterinary clinic within the shelter
- Modern surgery suite with three tables, state of art anesthetic machines
- Not sure exactly when the outbreak began, but some months ago

Comparison by possible risk factors
Feb. 2008-Nov. 2008

	Cats with infections	Cats without infections	P Value
Median age at surgery:	5 mos	4 mos	0.29
Min, Max	2mos, 4 yrs	2mos, 5 yrs	
Median days to surgery (days):	12	15	0.5
Min, max (days)	5, 32	1,35	

Note: we needed to compare characteristics of affected cats to unaffected cats (took a sample of unaffected)

Attack rates by surgeon
July 2008 - Nov. 2008

Surgeon	No. Infections	No. of Spays	Attack Rate	P value
1	27	1015	2.7	0.16
2	18	430	4.2	
3	5	276	1.8	
	50	1721		
Pearson's Chi Square Test was used				

Comparison of attack rates
July 2008 - Nov. 2008

Technician	No. Infections	No. of Spays	Attack Rate (%)	P value
1	10	250	4.0	0.13
2	4	244	1.6	
3	11	245	4.5	
4	3	242	1.2	
5	10	242	4.1	
6	4	251	1.6	
7	8	247	3.2	
	50	1721	2.9	

3/6/2012

Regrouping of data for technicians
July 2008-Nov. 2008

Technician status	No. Infections	No. of Spays	Attack Rate (%)	P Value
Recent Hire	39	984	4.0	0.003
Experienced	11	737	1.5	

Recently hired technicians were 2.7 times more likely to have worked on a cat that developed an incision infection than experienced technicians [4.0/1.5=2.7], p= 0.003

Assess the disease burden

Some ideas other than incidence or prevalence

- Average daily census of sick cats
  - Of cats - 190
  - Of sick cats - 15
  - 7.9% of cats in the shelter each day (or month, etc) were ill

- Ave % use of isolation ward cages (e.g., ave. of 90% of the isolation cages were filled daily for the month of July)

- Ave. percentage of care-days in the shelter devoted to sick cats by month/year

18

Effect of age and URI on median length of stay: 2010
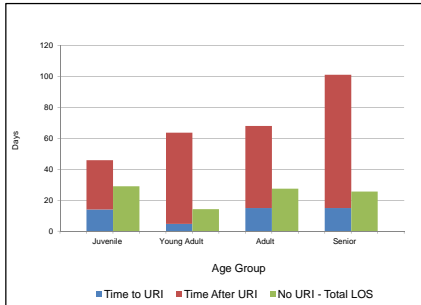
Evaluate effectiveness of changes in protocol

Cum. incidence of feline URI for 2010 and 2011

■ AveDaily census
  (Jan-May):
    2010 – 193
    2011 – 119
■ MedLOS
    2010 - 33
    2011 - 25
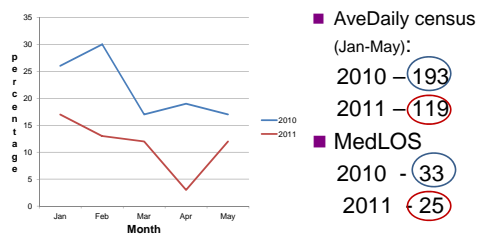
Other questions

- Identify
  - High risk groups (e.g., age groups)
  - High risk time periods
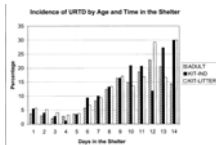
Proportion of Cats that Develop URI by Age Group in a Year
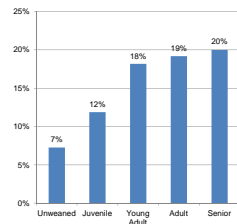
Effect of disease on euthanasia risk

Medical reasons for euthanasia

Dispositions	Ind. Kittens	Adults
	%	%
Developed URTD		
Adopted	42.3	31.0
Euthanized	49.6	63.7
Other	8.0	5.3
No URTD		
Adopted	64.2	33.8
Euthanized	25.1	61.0
Other	10.7	5.2

Other factors to monitor

Other factors to monitor

- Duration of illness
- Success of treatments?
  - By time to cure
  - By time to switch from one antibiotic to another

(decide how you will measure duration – by location in isolation or time on antibiotic)

Health related goal-setting

Health-related goal setting

- **If you don't set goals to improve population health, you are likely to maintain the status quo**
- Examples: reduce C.I. of URI by 5% next year; decrease median LOS; reduce risk of panleukopenia in kittens; decrease time to S/N

Goal: reduce median LOS

Median LOS by Month (Cats)
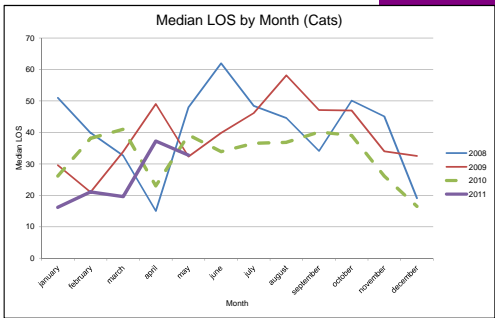
Other Considerations

How easy are the data to obtain?

- From reports feature of software package

- From the monthly data dump (e.g., Pet Point®)

- Specific tallies of interest to you

- Graphs
  - All done with Excel
  - Staff, volunteers, kids??
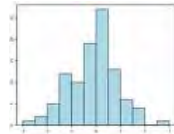
What are the "best" medical metrics?

Ideas

Really depends on what you most want to know

Our current thoughts

- Baseline annual period prevalence of disease (e.g., URI) – could substitute incidence
  - By age, source of animal (e.g., stray, surrender)
- Trends in period prevalence of disease (e.g., URI)
  - By month, season, year, age, source, etc
- Ave daily census of sick cats/dogs (by disease)
- % of care-days devoted to sick cats/dogs
- Complication rates, time to recovery, treatment failures
- [cost-related stats]
- Many others . . . .

Insights, thoughts

Sharing some insights

- *MUST* have clear definitions of age, illness, other things you want to evaluate.
  - Determined by "*you*" in your software set-up and MUST have a key to your definitions

- Take-home message!
  - "YOU" must become familiar with your software "set-up" and definitions (if they already exist) OR
  - Be involved in the set-up for your shelter

Proportion of cats that are diagnosed with URI by age group: 2010

Proportion of cats in 2010 with URI by Age categories

A bar chart showing URI Rate on the y-axis (0% to 30%) across age categories on the x-axis:
- <= 5 wks: 8%
- <=16 wks >5 wks: 12%
- <=6 mos >16 wks: 26%
- <=12 mos >6 mos: 22%
- <=8 yrs >1 yr: 22%
- >8 yrs: 21%
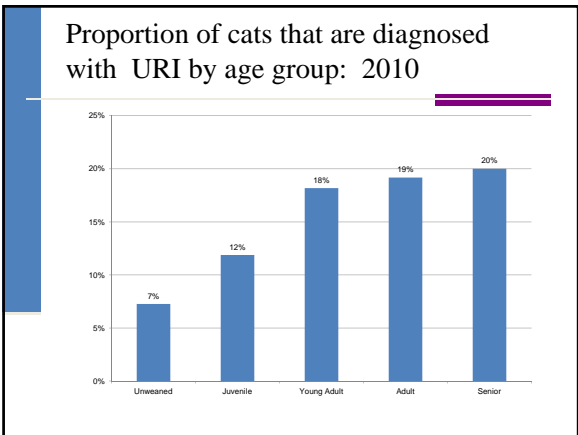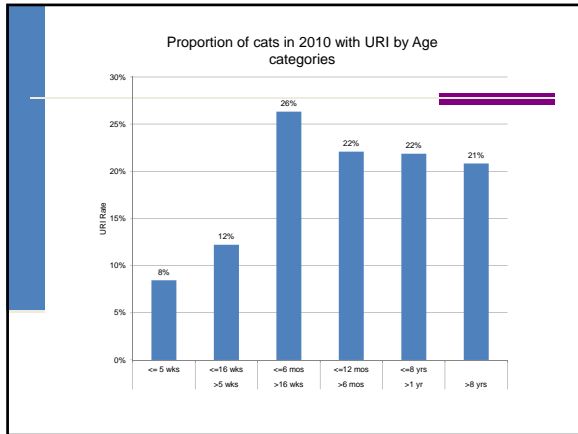
Sharing some **insights**

- Consider how your intake categories are set up in your software (what is your question?)
  - **Intake**
    - Owner guardian surrender
    - Stray
    - Return
    - Transfer In
    - Seizure
    - Service-In (include animals admitted for TNR and S/N)

Insights cont'd

- Specify your questions very carefully.
  - Include animals in foster or not?
  - In the software set-up: what conditions / diagnoses were included?
- Be careful of changing definitions in your database.
- Need to keep a log of database changes with dates (if you make changes)
- Similarly, need a log of protocol and other shelter changes (e.g., change in philosophy, addition of staff veterinarian, with dates)
- Carefully interpret your data. (What other factors might affect the interpretation?)

Caution: confounding

Age group	Pre-altered?	Developed URI	Intake	URI incidence
All	Yes	33	231	14 %
All	No	190	1180	16%

Age group	Pre-altered	Developed URI	Intake	URI incidence
Kitten	Yes	0	5	0%
Adult	Yes	33	226	15%

Age group	Pre-altered	Developed URI	Intake	URI incidence
Kitten	No	62	667	9%
Adult	No	126	509	25%

Think about your data: frequency distribution of LOS

2010 cats

Number of Cats / DAYS
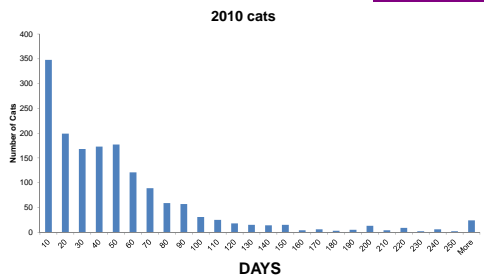
Insights cont'd

- Consider
  - The accuracy of your data
  - The completeness of your data – how much missing data?
  - Share analyses with Board, management, staff, volunteers: motivates, informs, directs utilization of resources
- Force yourself to make examination of shelter data a regular occurrence!!

Shelter Goal:

Provide for the best welfare of the animals in your shelter as possible
- (e.g., minimize disease and reduce suffering, prevent euthanasia)

Collecting and using your data can help you do this better!!!

Thank yous

- Maddie's Fund®

- Colleagues
  - Drs. Greenberg, Berliner, Newbury, Hurley, others

- Shelters
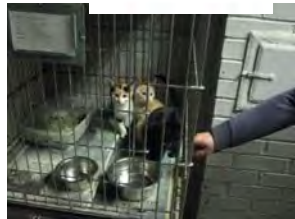
Monitoring and Population Management in Animal Shelters

Kate F. Hurley, DVM, MPVM
Koret Shelter Medicine Program Director
Center for Companion Animal Health
University of California, Davis
www.sheltermedicine.com
www.facebook.com/sheltermedicine
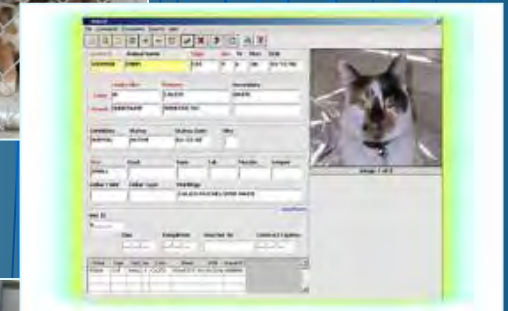
Monitoring basics

Individual

- Health
  - Acute: infectious disease
  - Long term: weight, condition, chronic conditions
- Behavior
  - Acute: stress/distress/fear
  - Long term: boredom, stereotypic behaviors, negative interactions with others, behavior problems

Population

- Health and wellness in the shelter
  - Disease/stress levels
  - Costs
- Community/shelter population dynamics
  - Intake
  - Length of stay
  - Outcome
  - Community health

Monitoring individual animal health
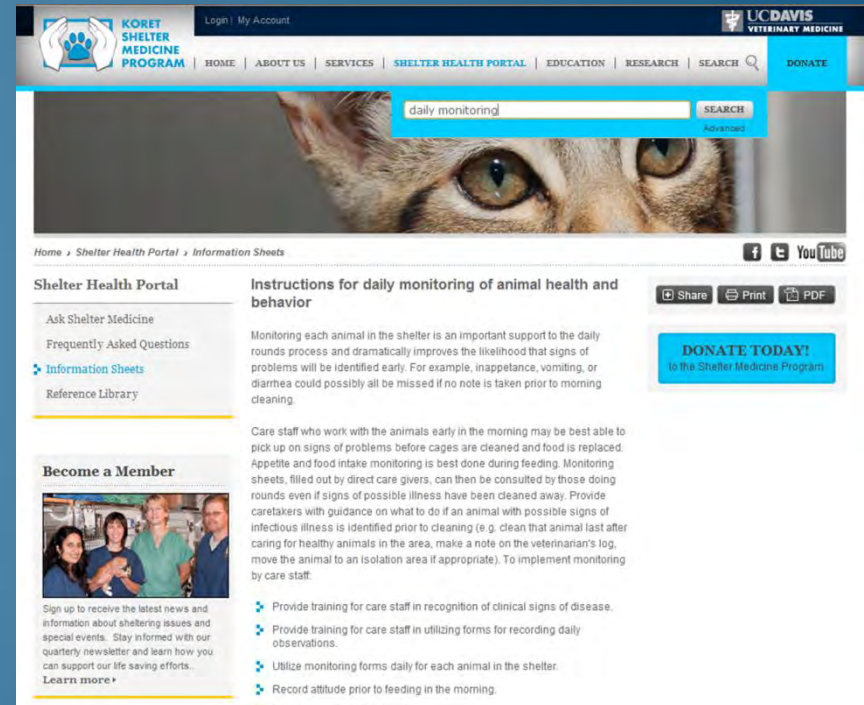
Importance of individual monitoring

- Transient animal and caretaker population
  - Routine, written observations
- Consequences of problems can snowball
  - Infectious/zoonotic disease spread
  - Stress/behavioral disorders could prevent adoption
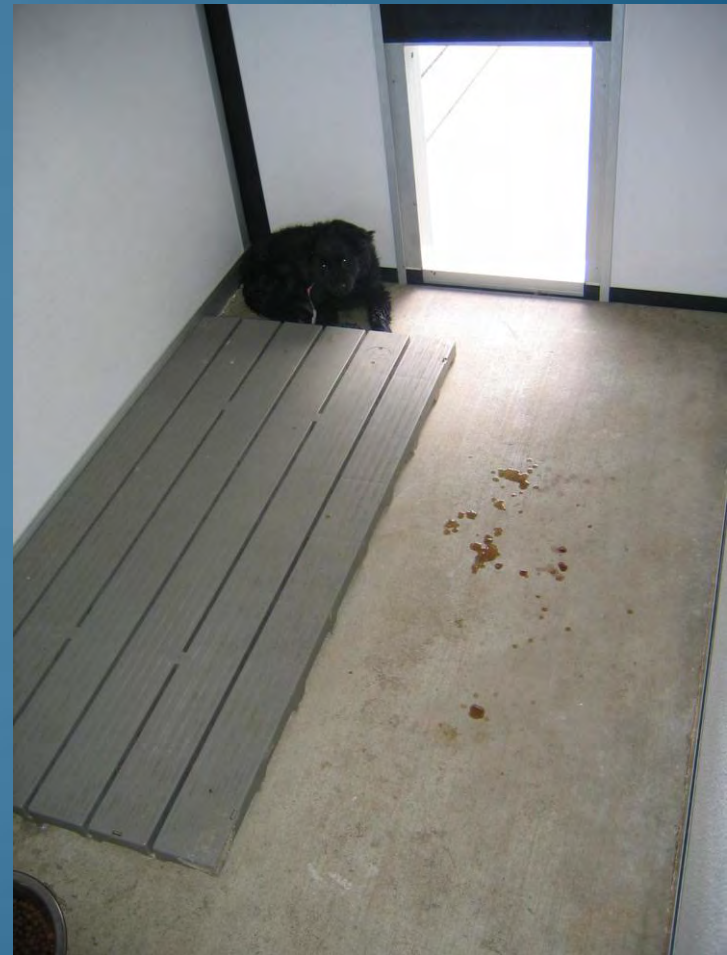
Who should monitor shelter animals?

- *Trained* staff for routine monitoring
  - Cleaning and feeding staff
  - Intake staff
  - Medical staff (?)
  - Provide written and observational training
  - Observe
- *Veterinarian* at least once for each animal, and whenever illness is suspected

When should monitoring take place?

- At intake
- Daily before cleaning
- Daily at the time of feeding
- Daily while under treatment
- Each time an animal is interacted with
- Prior to adoption
- In depth at least once a month
- Full veterinary exam at least 2X/year

Intake exam

- All body systems with emphasis on:
- Behavior (safety and adoption)
- Age and sex/reproductive status
- Identification (microchips, tattoos, scars)
- Infectious disease
  - Ringworm!!!
  - Parasites
  - Feline retroviruses?
  - Canine heartworm?
  - Parvovirus/panleukopenia?
- Painful or progressive conditions
- Issues for adoption
  - Heart murmurs, dental disease
- Baseline information: weight, demeanor, condition

A few notes on ringworm

Busted!!!

- Potential shelter disaster
- Careful physical
  - Suspect ANY skin lesion on a cat
- Proper Woods lamp
  - Plug-in, 365 nm wavelength
  - Fully dark room
  - Warm up 5 minutes
- Direct exam of glowing hairs
  - Mineral oil or KOH
- Confirm with culture *plate*
  - Don't rely on color change
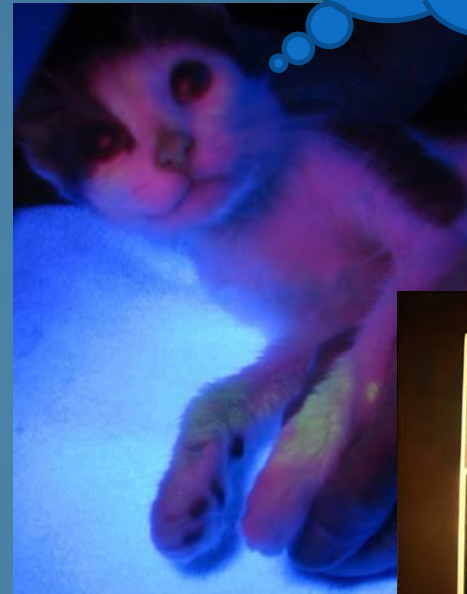
Chapter 16 of "Infectious Disease Management in Animal Shelters", Wiley-Blackwell, 2009
Or, Google: "Lunch with Fungus"

Daily monitoring

- Cage: Urine, feces, vomit, mucous on cage, blood, *mess*

- Animal: Visual assessment of health and behavior

- Provide list of red flags for intervention

Red Flags

- Emergency
  - Life threatening
  - Severe suffering
  - Prognosis
- Infectious disease
  - Severe or systemic GI or respiratory
  - Skin lesions on cats (suspect ringworm)
  - Neurological (rabies, distemper)
  - Dead in cage
- Behavioral distress
  - Trembling, prolonged hiding, trying to escape
  - Messy or destroyed cage
  - Inappropriate elimination
  - Guarding resources from others
  - Stereotypic behaviors

www.sheltermedicine.com, search "red flag"

Red Flag
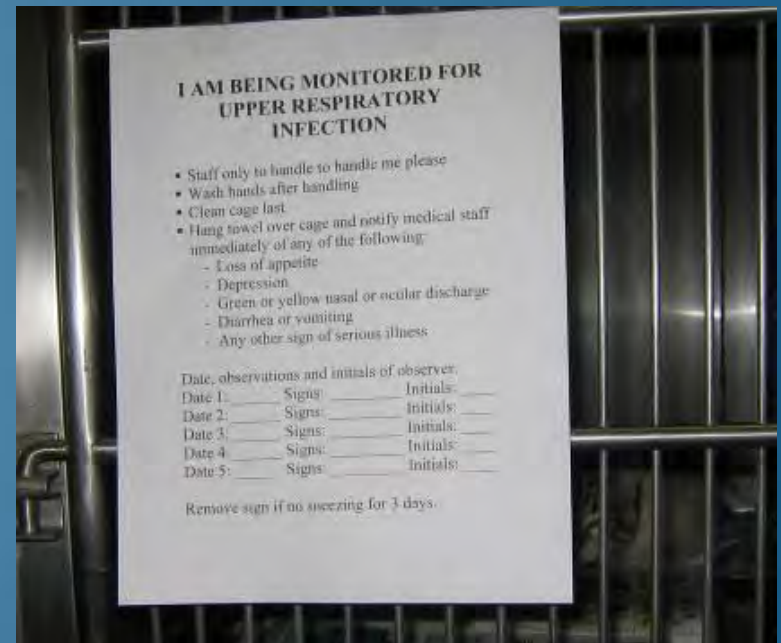
Red Flag

Recording

- Convenient location
  - In binder
  - On cage?
  - Computer software?
  - At least 7 days accessible
- Start small if you need to
  - Urine, feces, vomit, respiratory discharge, appetite
  - Check boxes rather than free hand
  - Observer initials ideally

Monitoring food and water intake

- Basic to humane care of animals
- Ensure fresh clean water at least 2 x/day or more as needed
- Secure dishes well separated from sources of contamination
- Caution with automatic water-ers

Monitoring food intake

- Can be early indicator of illness
- Sensitive indicator of stress for some animals
- Feed consistent amount and replace daily to facilitate
- Observe and record at the time of feeding
  - Before replacing food
  - After dispensing food
- Not rocket science: not eating, ate some, ate all
- Note *each member* of a litter or group
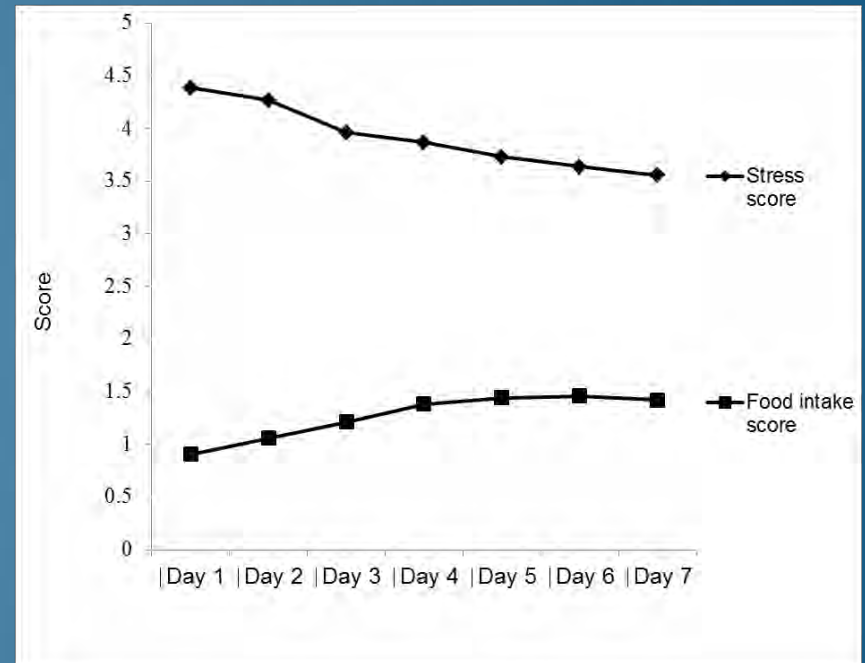
Directly observing food intake is especially important for co-housed animals

Monitoring weight and body condition

- Weight loss acutely

- Loss or gain chronically

- Measure body condition score as well as weight

- Intake, weekly for 1st 4 weeks

- Monthly thereafter for cats in good body condition

- Weekly for cats trying to gain or lose
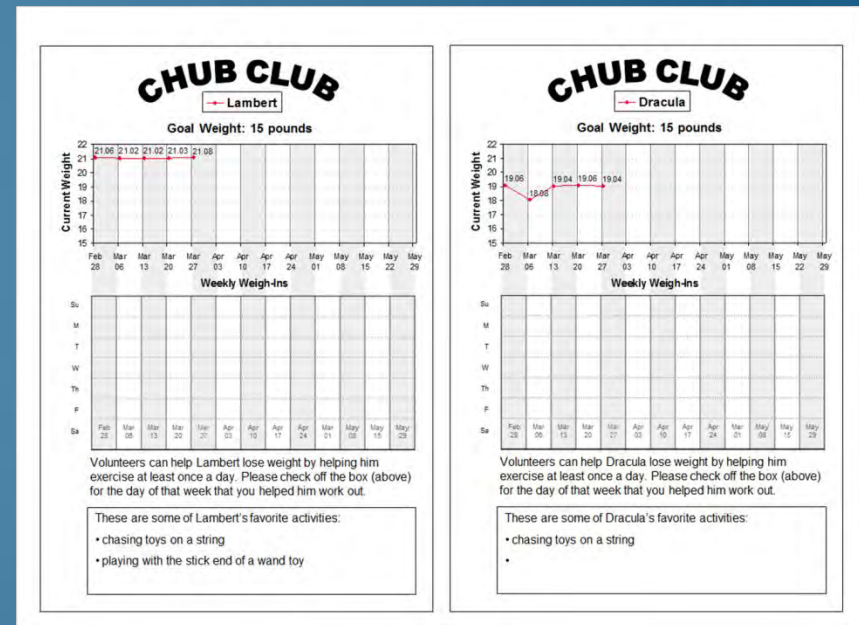
Monitoring treatment

- Evaluate need for treatment *daily* rather than treating for set time
  - Reduces risk of antibiotic resistance
  - Reduces costs and stress for animals
- Consider scoring systems for common conditions
  - Respiratory disease
  - Diarrhea
- Initial treatments to ensure compliance

Monitoring population health

Measuring disease in populations

- Pick a disease (s)
  - Common disease as flag for overall risk
  - Respiratory disease in cats for both health and welfare
- Define and obtain your numerator (case definition)
- Define and obtain your denominator

Hand case count

Animal ID	Age[1]	Intake date	URI dx date	URI outcome[2]	URI outcome date

[1] Age: J=Juvenile (≤ 5 months old) or A=Adult (> 5 months old)
[2] URI Outcome = R (recovered in-house), E (euthanized still sick), A (adopted still sick), F (foster still sick) or O (other outcome – please describe)

SHELTER HEALTH PORTAL | EDUCATION | RESEARCH | SEARCH

uri tracking

SEARCH

Advanced

Choosing the denominator

- ## Intake?
  - ### Works over long period
- ## Care days?
  - ### Count daily unless shelter is always ~ same population

Monthly URI as percent of intake
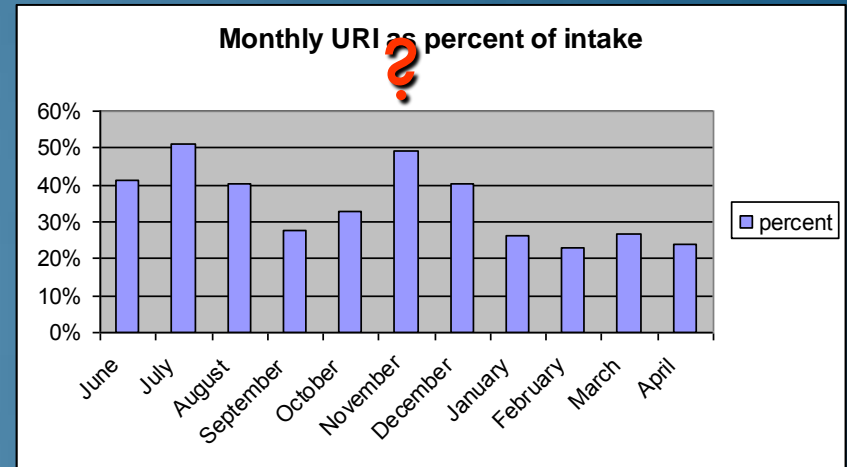
154 cases of URI/intake of *472* cats in October, versus 101 cases of URI /intake of *251* cats in November

Variations in URI frequency: where would you rather be a cat?

Fig. 1. Bar chart showing the frequency of cats with different RDE clinical scores (n = 1434 cats from five UK shelters, 2002–2003).

60/1434

Fig. 2. Kaplan–Meier plot showing how the proportion of cats remaining uninfected (i.e. first RDE not reached) declines with time from a cat's arrival at the centre, separately for each adoption centre (n = 1434 cats from five UK shelters, 2002–2003): (—) Centre A, (- - -) Centre B, (— —) Centre C, (- - -) Centre D, (—- - -) Centre E.

Probability of URTD by Time in Shelter

All Cats

661/2203

Edwards, D. S., K. Coyne, et al. (2008). "Risk factors for time to diagnosis of feline upper respiratory tract disease in UK animal adoption shelters." Prev Vet Med 87(3-4): 327-39.
Dinnage, J. D., J. M. Scarlett, et al. (2009). "Descriptive epidemiology of feline upper respiratory tract disease in an animal shelter." J Feline Med Surg.

UC Davis "Feline URI project"
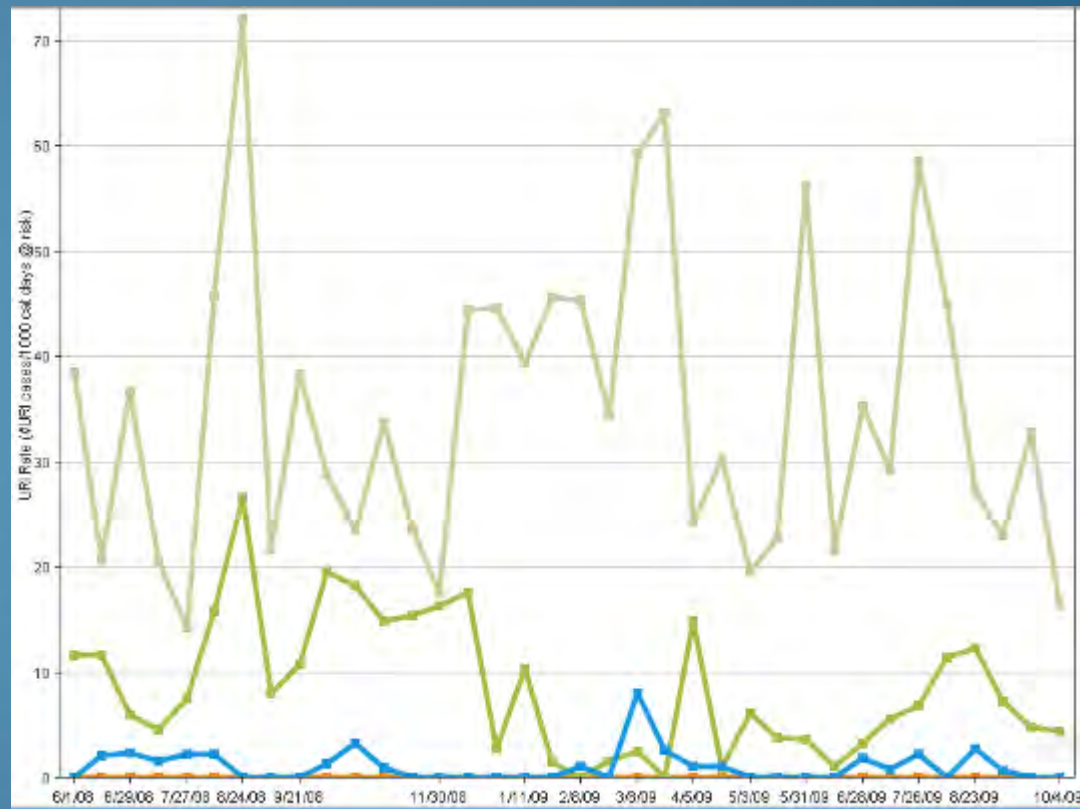
URI frequency in shelter
ranged from 4.4% to 25%

What made the difference?

49 questions including cage size, material and number, hiding place, handling, infectious disease control, vaccination, feeding, timing of S/N, air quality, natural light, dog exposure

After all that, what mattered most?

all_URI_GT2	IRR	Robust Std. Err.	z	P>|z|	[95% Conf. Interval]	
new_cifs_2	.8466349	.1243785	-1.13	0.257	.6348145	1.129134
new_cifs_3	.4896522	.0598454	-5.84	0.000	.3853484	.6221882
mixed	.3275651	.1583542	-2.31	0.021	.1269998	.844875
ln_total_c~e	1.179146	.3084261	0.63	0.529	.7061895	1.968857
Movement_i~e	.1891859	.0390889	-8.06	0.000	.1261876	.2836357
Intranasal~e	1.463807	.3018267	1.85	0.065	.9771741	2.192782
new_hs_2	1.050598	.4976885	0.10	0.917	.415151	2.658687
new_hs_3	.7965236	.2267483	-0.80	0.424	.4559162	1.391593
new_season_2	.722167	.0468721	-5.02	0.000	.6359025	.8201339
new_season_3	.7874888	.0896001	-2.10	0.036	.6300792	.9842234
new_season_4	.9176195	.1682131	-0.47	0.639	.640656	1.314318
Total_heal~s	(exposure)					

Greater than 9 square feet of floor space but not 6-8
compared to < 6
Limited movement in first 7 days
All large cages were compartmentalized
Separate housing for kittens and adults

What surprised us?

adlt_URI_GT2	IRR	Robust Std. Err.	z	P>|z|	[95% Conf. Interval]	
new_cifs_2	.7359516	.1090948	-2.07	0.039	.5503897	.9840751
new_cifs_3	.0875579	.0124553	-17.12	0.000	.0662538	.1157125
mixed	1.742495	.6706823	1.44	0.149	.8194947	3.705076
ln_total_c~e	1.248198	.2747369	1.01	0.314	.810827	1.921493
Movement_i~e	.1816036	.0347689	-8.91	0.000	.1247837	.2642963
Intranasal~e	1.674163	.286539	3.01	0.003	1.197048	2.341445
new_hs_2	6.698473	2.294356	5.55	0.000	3.423126	13.10777
new_hs_3	5.571237	1.14884	8.33	0.000	3.718999	8.345977
new_season_2	.7703575	.0490896	-4.09	0.000	.6799095	.8728378
new_season_3	.7497027	.0642967	-3.36	0.001	.6337055	.8869327
new_season_4	.8673703	.1720242	-0.72	0.473	.5880131	1.279446
Healthy_ca~t	(exposure)					

Intranasal vaccine?

Provision of a hiding space in a cage < 6 square feet??

Evaluating cost of disease: "animal care days

- Facility costs
- Staff time
- Daily supplies (food, toys, blankets, litter, etc.)
- Medical costs for "sick animal care days"
- Reducing care days per animal will reduce costs; consider when planning treatment

Daily Care Cost Sick- URI			
		% cats receiving	
Treat in House			
Initial Cost (one time costs)			
Processing from gen. pop by staff(min)	5		
Return to gen pop by staff(min)	5	80	%
Veterinary (min)	5		
1x housing needs			
Paper/Misc			
Treatment Antibiotic	$2.00	100	%
Treatment Other	$1.00	35	%
Initial one time in house treatment cost/cat			$8.35
Daily Sick Care Costs			
Daily Cost Healthy Cat	$30.63		
Sick Care by staff(min)	5	80	%
Sick Care by vet(min)	5	33	%
Daily Sick Care Costs/cat			$32.86
Average Days of Illness Care	10	Days	
Ave. Total Cost of URI Care/cat			$336.98

Sick animal care days

Monthly Report for March 2008	
Incidents	49
% of Incidents where Animal was Sick @ Intake	12.2% (6)
Intake	184
Duration to Onset	Mean = 7.1 days Range = 0 - 19 Median = 8 n = 49
Duration of Dz (Recovery)	Mean = 17.0 days Range = 2 - 57 Median = 14 n = 40
Duration of Dz (Euth)	Mean = 9.2 days Range = 2 - 31 Median = 4 n = 5
Duration of Dz (Overall)	Mean = 16.1 days Range = 2 - 57 Median = 14 n = 49
Cat Days @ Risk	1460
Sick Cat Days	722

Monthly Report for March 2008	
Incidents	2
% of Incidents where Animal was Sick @ Intake	0.0% (0)
Intake	89
Duration to Onset	Mean = 111.5 days Range = 93 - 130 Median = 111.5 n = 2
Duration of Dz (Recovery)	Mean = 6.5 days Range = 5 - 8 Median = 6.5 n = 2
Duration of Dz (Euth)	Mean = 0.0 days n = 0
Duration of Dz (Overall)	Mean = 6.5 days Range = 5 - 8 Median = 6.5 n = 2
Cat Days @ Risk	2637
Sick Cat Days	21

Making an investment

Cost of change?
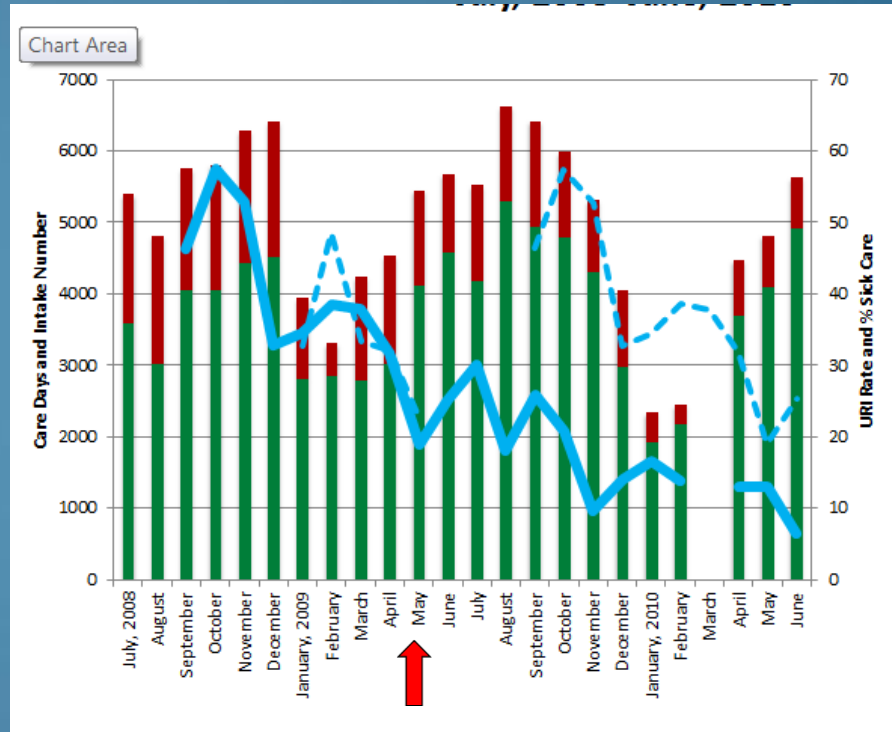
Average decrease in monthly sick care days: 29%

1,132 fewer sick days summer after versus before

Priceless

- **Sent:** Thursday, February 25, 2010 7:50 AM
  To: Kate Hurley

- **Subject:** Feline Sickbay @ SacSPCA

- Never in my wildest dreams would I have believed I'd see the day with ONE cat in feline sickbay!!! Today is that day!

And still a year later (3/8/2011)

Other measures of shelter health

- Medical supplies used
  - Treatment
  - Preventive
- Medical euthanasia
  - Intake health status
- Died in shelter
  - Dogs << 1%
  - Cats < ~ 2.5%
  - Adult animals: rare
  - Evaluate cause for each death

Medical Euthanasia Compared to Inventory

— Medical Euthanasia and Died In Kennel

— Feline Shelter 2nd Tuesday Inventory
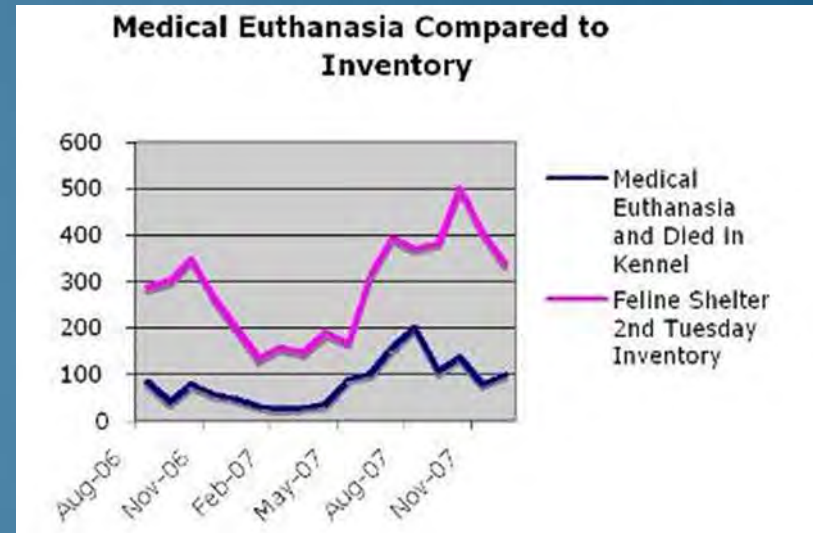
"Died in shelter" comparison

Percent dogs died in Dutch shelters
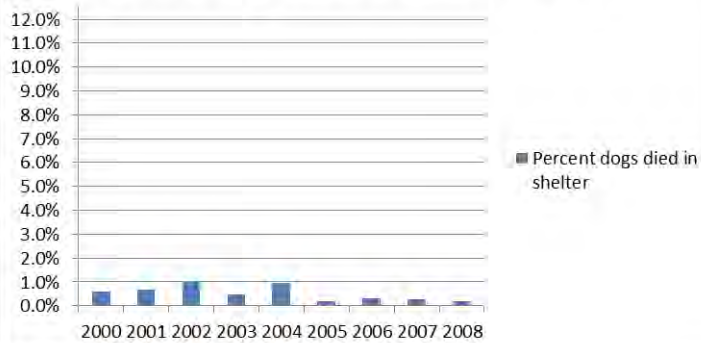
Percent dogs died in CA shelters
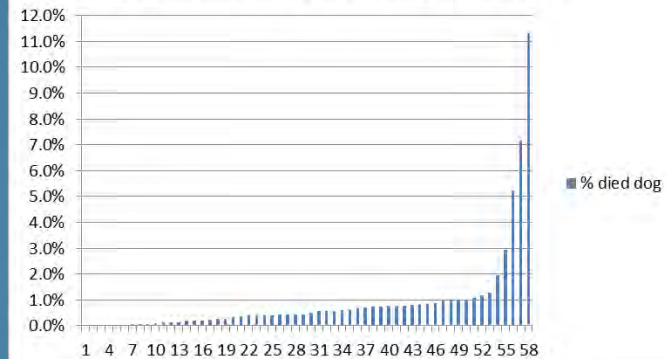
Percent cats died in Dutch shelters
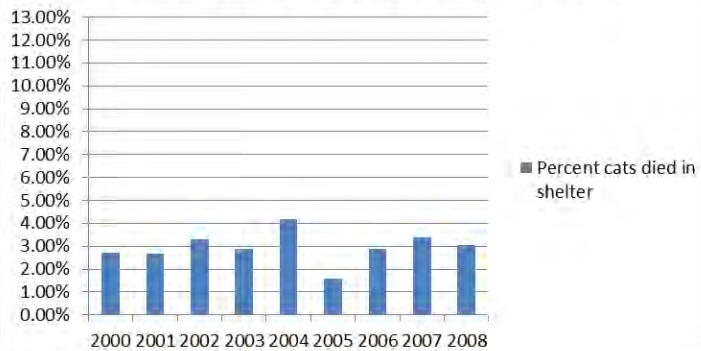
Percent cats died in CA shelters
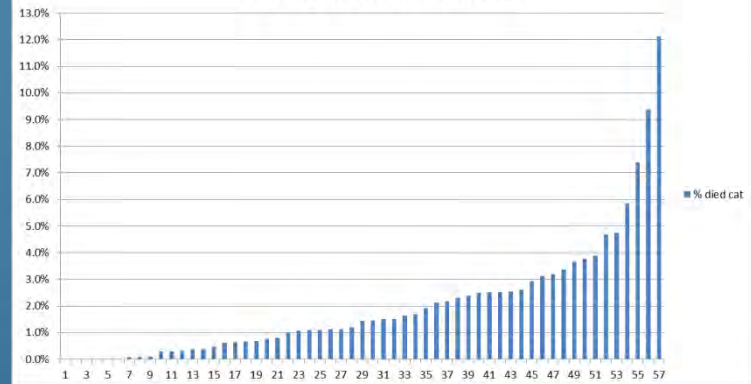
Shelter population management and monitoring

Shelter population management: Capacity and Flow
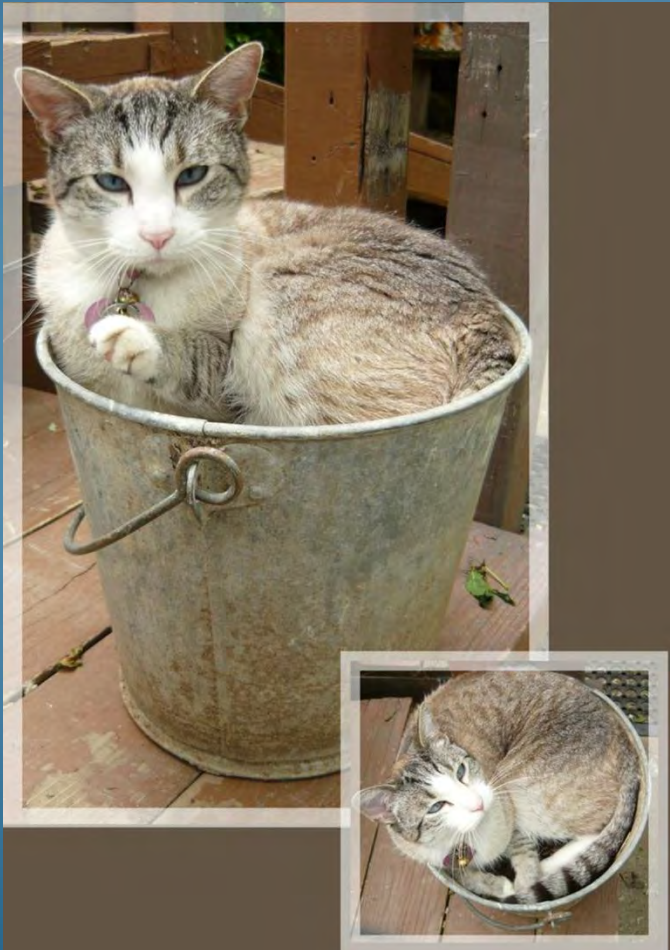
Defining shelter capacity

- What and how much do you have?
  - Areas
  - Housing units
  - Staffing
  - Community resources
- What and how much do you need?
  - # and kind of animals admitted
  - Special needs
  - Community potential
- What will you do if they don't match?

How big a shelter do we need?
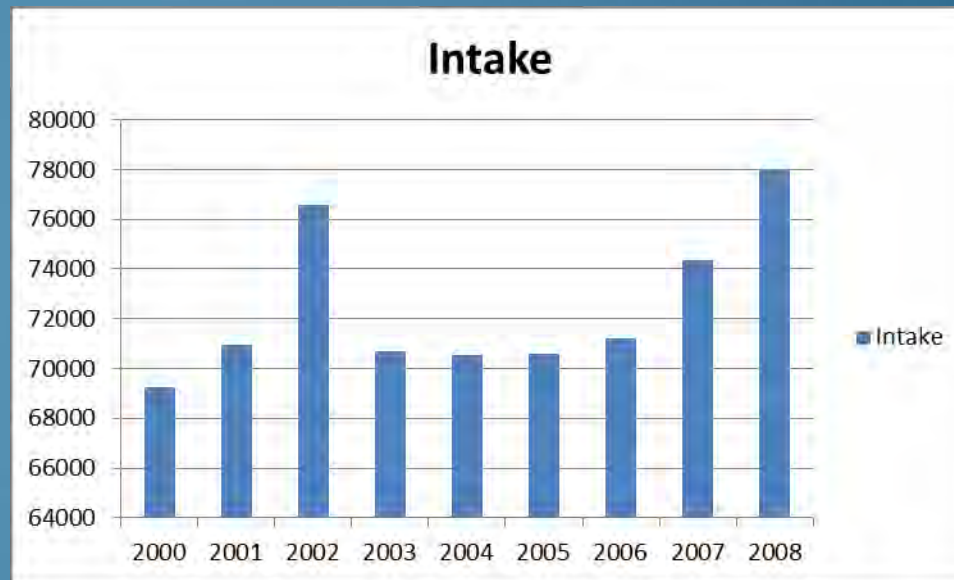
652,145 animals

How big a shelter do we need?

Intake and live release
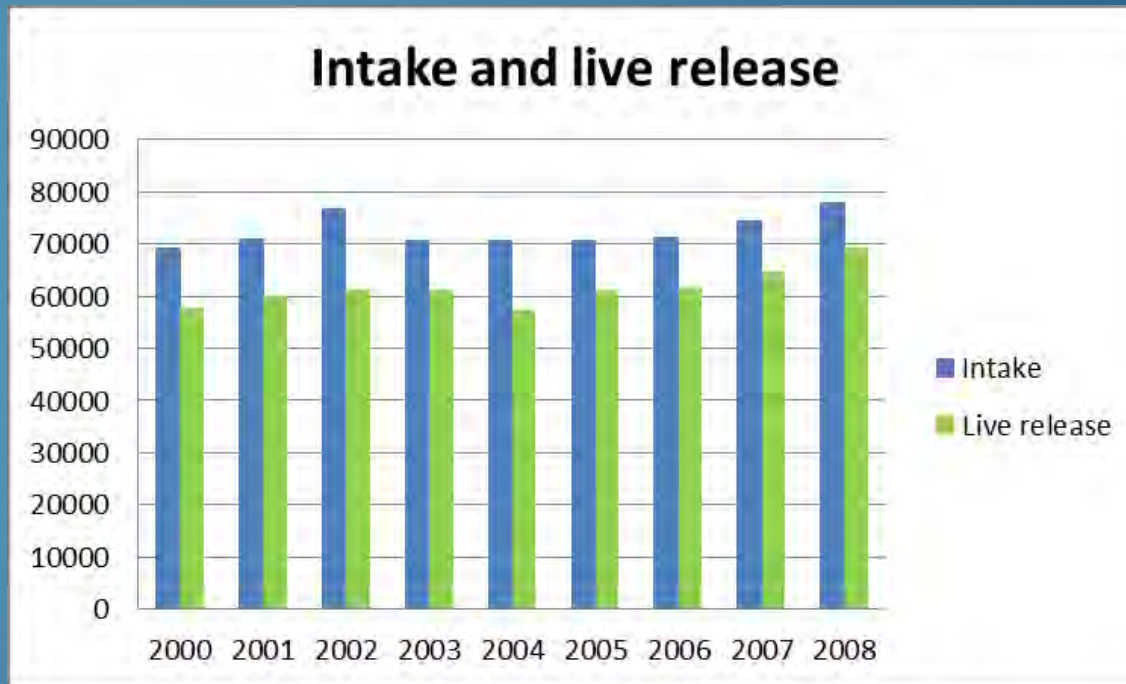
97,821 animal difference

How big a shelter do we need?
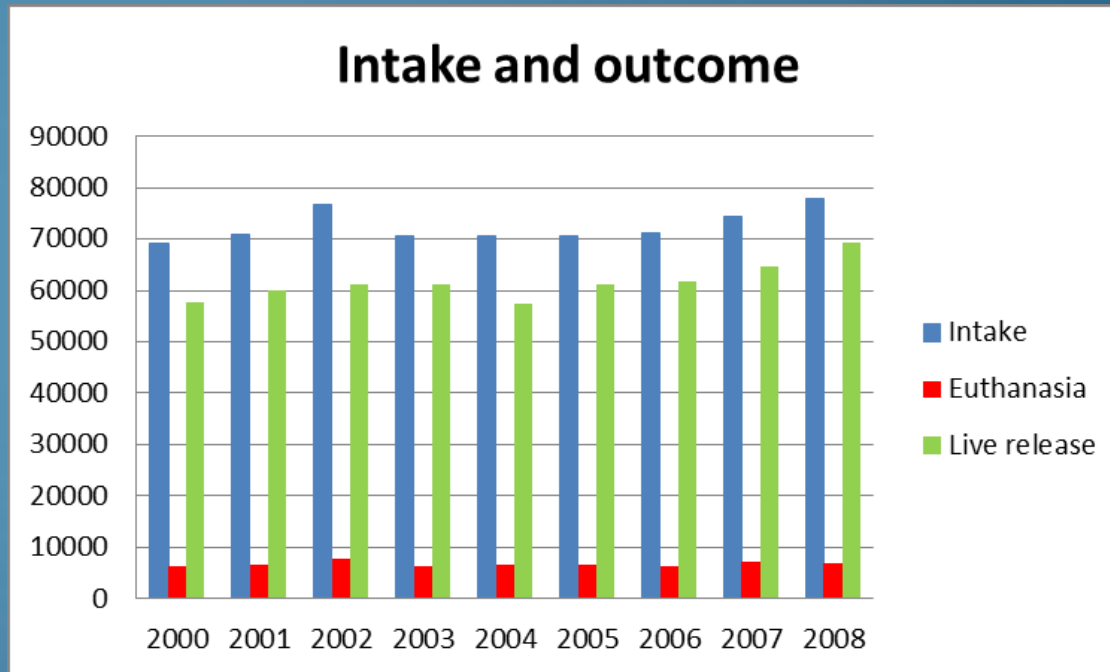
60,903 euthanized

Cost of long term sheltering as a solution

At the sanctuary

The Best Friends Animal Sanctuary at Angel Canyon, at the heart of the Golden Circle of national parks in southern Utah, is home on any given day to about 2,000 dogs, cats, and other animals, who come from shelters and rescue groups around the country for special care they can only receive at Best Friends.

Most of the animals who find their way to Best Friends have special physical or behavioral needs, and our expert staff of veterinarians, trainers and caregivers offer them all the help they require. Most of them are ready to go to good new homes after just a few weeks of special care. A few, who are too old or too sick, or who have suffered extra trauma, find a home and hav...

Total revenues, gains, and other support	45,473,174	1,742,346	698,832	47,914,352	41,599,984
Expenses and losses:					
Program 1 - animal care activities	15,507,393	-	-	15,507,393	16,471,781
Program 2 - rapid response	332,655	-	-	332,655	1,000,092
Program 3 - campaigns and other national outreach	11,654,212	-	-	11,654,212	12,972,339
Management and general	2,507,426	-	-	2,507,426	2,168,773
Fund-raising	5,652,739	-	-	5,652,739	4,382,493
Total expenses	35,654,425	-	-	35,654,425	36,995,478

Capacity based on time

- E.g. 77,945 animals admitted in 2008
- If each one stays a month, each housing unit could hold 12 animals each year, so we would need:
  - 77,945/12 = 6,495 holding units in shelters
- If each one stays 3 months, we would need:
  - 77,945/4 = 19,486 holding units in shelters
- If each one stays 2 week, we would need?
  - 77,945/24 = 3,248 holding units in shelters

Which shelter will adopt out more cats?

Which shelter will adopt out more dogs?

Right-sizing the shelter (rescue or foster home, boarding facility, breeding program...)

- Number of animals housed determines:
  - Daily care cost
  - Staffing requirement
  - Length of stay
  - Risk for illness
  - Risk for problems with care
- Too many or too few *can cost lives*
- Aim for <80% most of the time

Shelters tend to get full

Basic capacity calculation

- # in x optimal/required length of stay
- Calculate daily average in
  - Monthly daily average if seasonal variation expected
- Separately by species, age, sometimes breed or special needs

	A	B	C	D
	Time period	Intake	Days in month	MDA
	Jan-09	82	31	3
	Feb-09	68	28	2
	Mar-09	94	31	3
	Apr-09	111	30	4
	May-09	168	31	5
	Jun-09	244	30	8
	Jul-09	302	31	10
	Aug-09	344	31	11
	Sep-09	302	30	10
	Oct-09	155	31	5
	Nov-09	132	30	4
	Dec-09	84	31	3
	Total	2086	365	6

Calculating "pre-adoption" needed capacity

- Purpose:
  - Legally required stray hold
  - Quarantine?
  - "Waiting for care"?
- Number of units (group spots or single enclosures) required = MDA x required hold
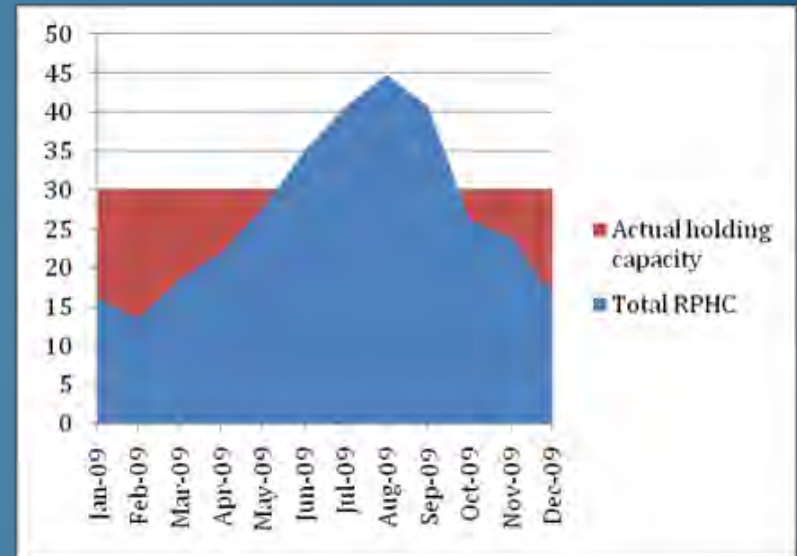
"Mount Kitten"

Making space by decreasing time

- ✓ Create decision process and action plans based on factors other than crowding
  - ▪ Individual and population
  - ▪ Adoption promotion, limiting intake, euthanasia
- ✓ Eliminate un-necessary holds
  - ▪ E.g. testing, "quarantine"
  - ▪ Evaluate benefit of legal holds
- ✓ Eliminate legal/logistical barriers to movement
  - ✓ E.g. vaccines only from infrequent vet visits
- ✓ Ensure sufficient staff for necessary transition points
  - ✓ E.g. spay/neuter/foster return before weekends
- ✓ Make animals available for adoption/rescue throughout stay
- ✓ Perform daily rounds, make daily decisions, take daily action
  - ▪ Set an early time point for concern for non-adoption, e.g. 7 days
- ✓ Maintain optimal rather than maximum numbers for adoption

Time and management

Time and management

2008 Canine Holding Inventory, Actual Capacity and Required Holding Capacity
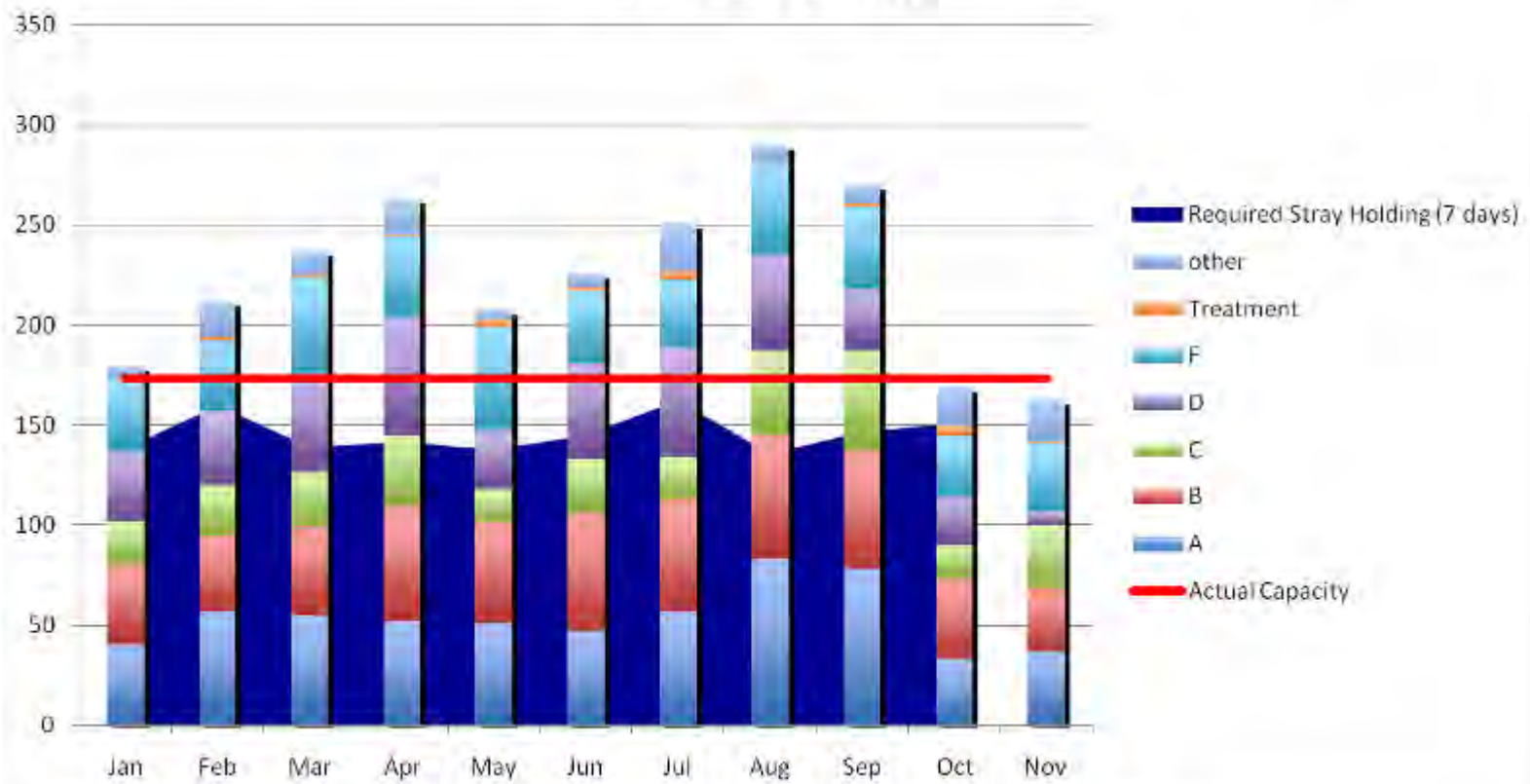
How much adoption housing is enough?

More is not always better

Adoption driven capacity

- Monthly daily average adoptions x ~ 7-14
- Age, +/- breed, condition specific
- Minimum to provide some variety
- Comfortable, cheap long term holding options to address predictable fluctuations for cats

A blinding flash of the obvious

Right sizing adoption

- "Our number of cages is 24 in the cat room. Last year we adopted out 232 adult cats from Oct 2009 to Mar 12, 2010 and kept the room pretty much at capacity."
- ADC in adoption area = Average daily adoptions x 7-10
- 232/163 (# of days in the time period) = 1.4 adoptions per day
- 1.4 x 7 = 10, 1.4 x 10 = 14
- ADC = 10-14

Right sizing adoption

- "In Oct 2010, we decreased our cat numbers to 12-13 by giving them double space. Our adoptions from Oct 2010 to present are now 261...29 more than last year of the same time frame. The cats are less stressed, URI is non-existant right now."

Required isolation capacity

- Do need some for treatment of infectious disease
- Be optimistic about amount unless shelter is admitting special needs animals
  - < 10% x < 10 days for respiratory
- Maintain equal quality to other housing

Same space, different time

What if you don't have enough capacity???

The best way of reducing required capacity over time: reduce the need

- Targeted spay/neuter
- Behavioral counseling
- Obedience training
- Affordable care
- Education
- Pet matching
- Housing access
- Etc....
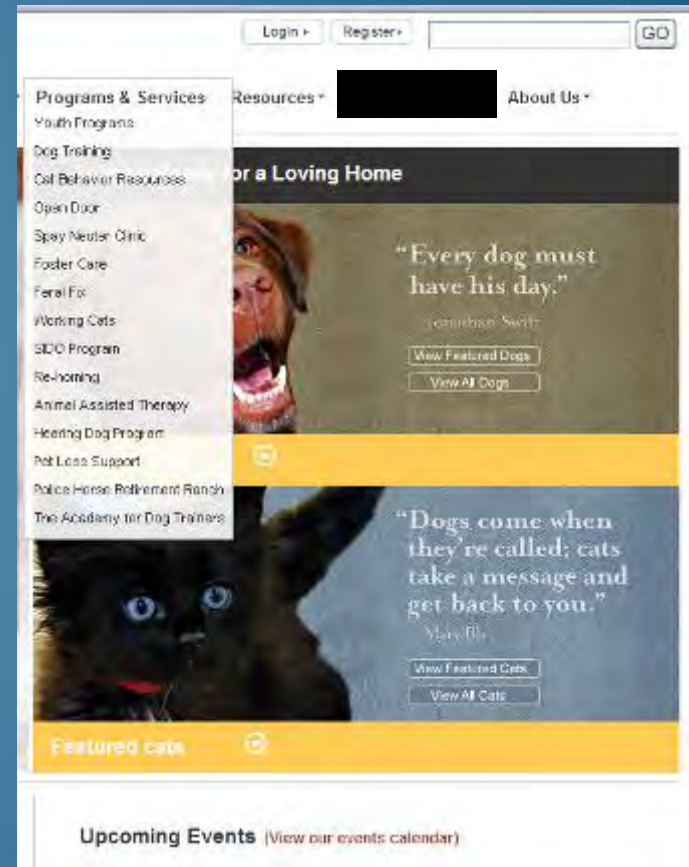
If you've done all you can with time and you still don't have capacity *today*:

- Euthanize more animals?
  - Even if this was palatable, it only works if it decreases time to outcome
- Provide inadequate care?
  - Vicious cycle of decreased capacity
- Limit intake
  - Scheduled intake
  - Spay/neuter release
  - Redirect to other shelter
  - Just say no
  - Recognize that we can't solve overpopulation by sheltering beyond capacity

Intake: a measure of risk or success

Feline intake (stray versus owner surrender)

Canine Intake (stray versus owner surrender)
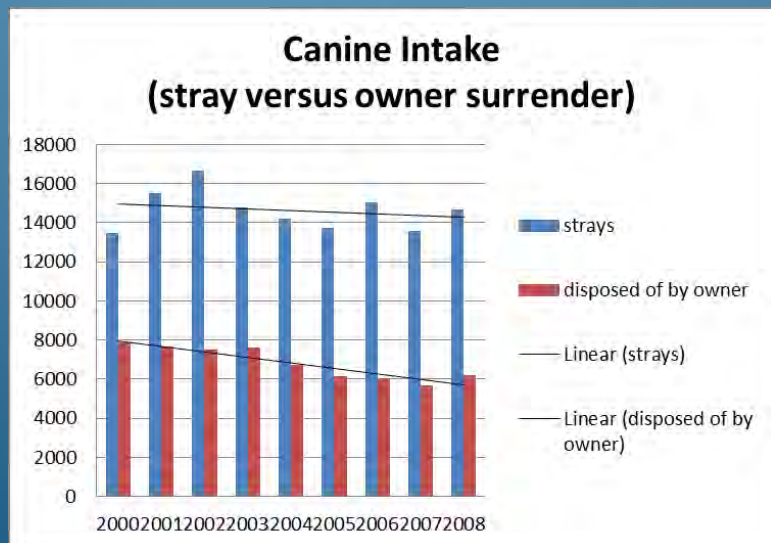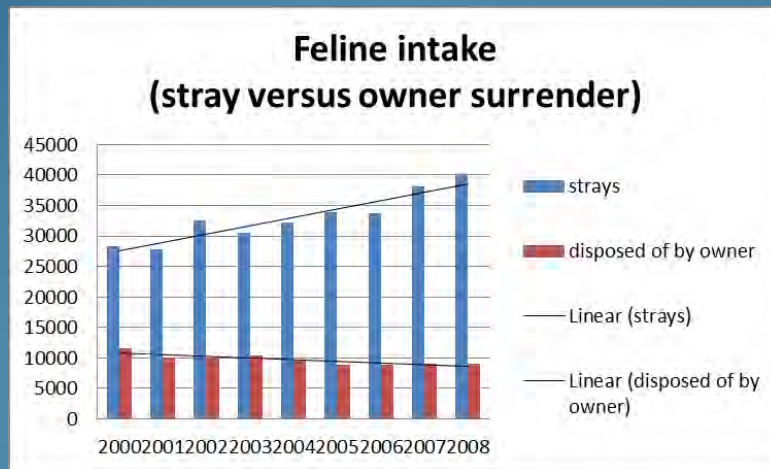
- Absolute numbers
- Per 1000 capita
- Stray versus owner surrendered
- Track by age to evaluate need for spay/neuter versus other services

Intake as a risk factor for death
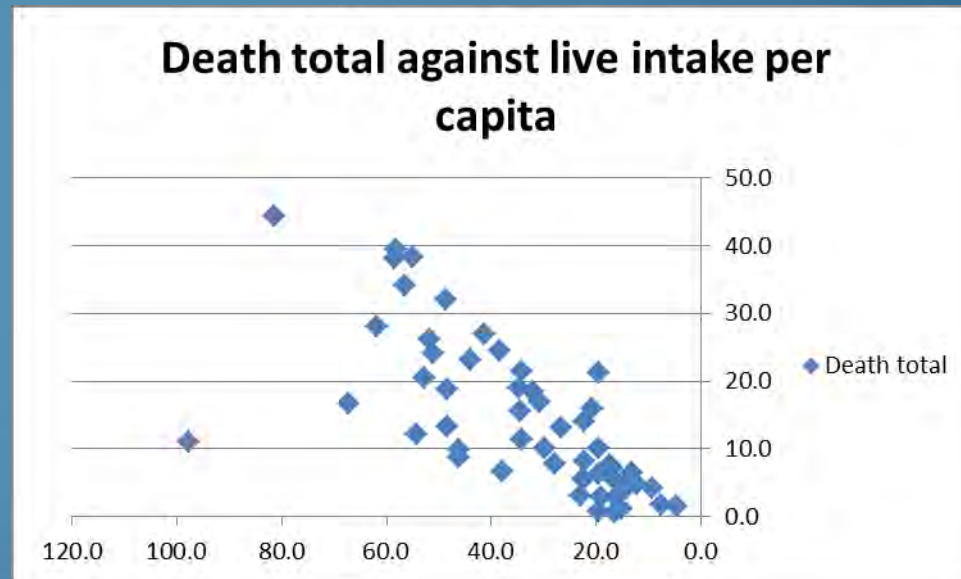
Dutch shelter intake
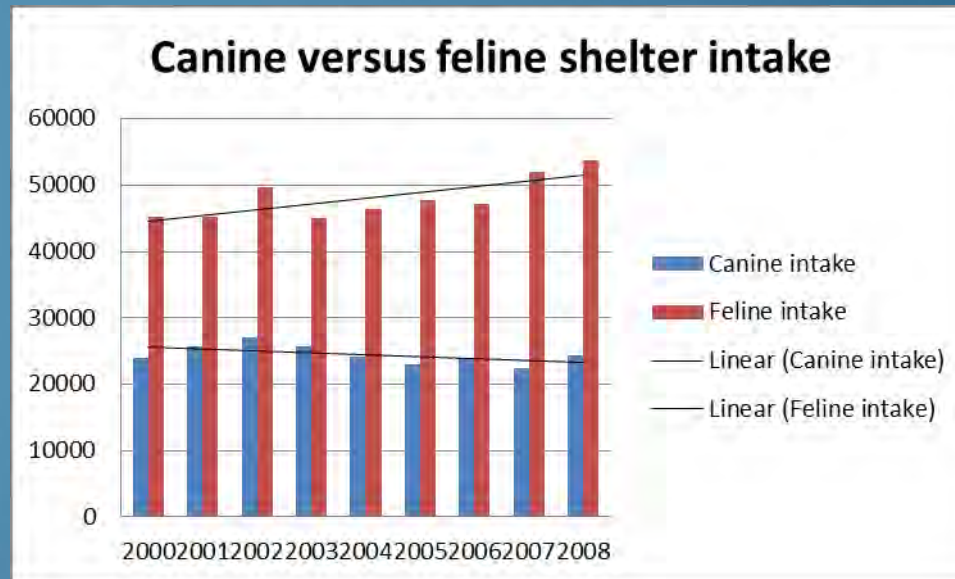
Dutch shelter death
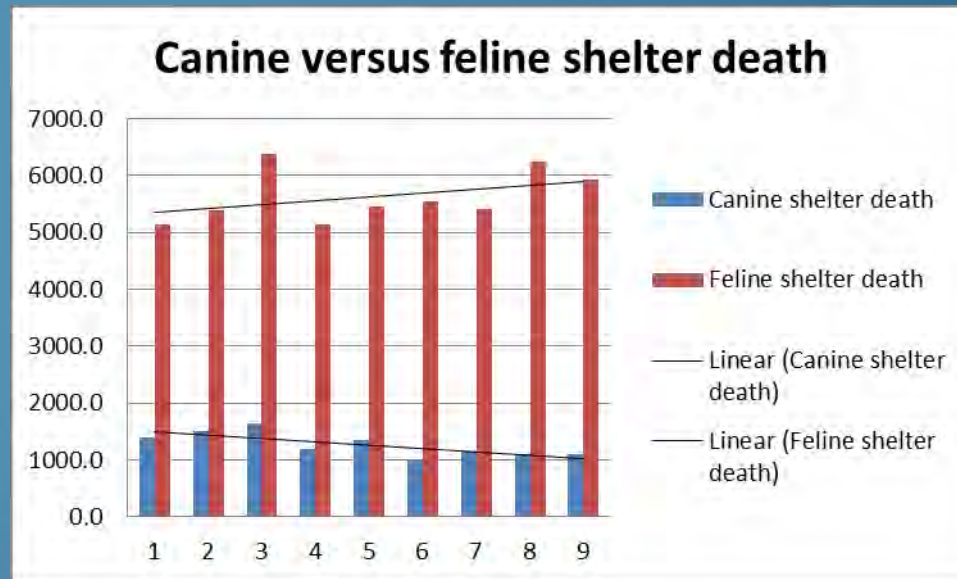
Outcomes: percent versus numbers
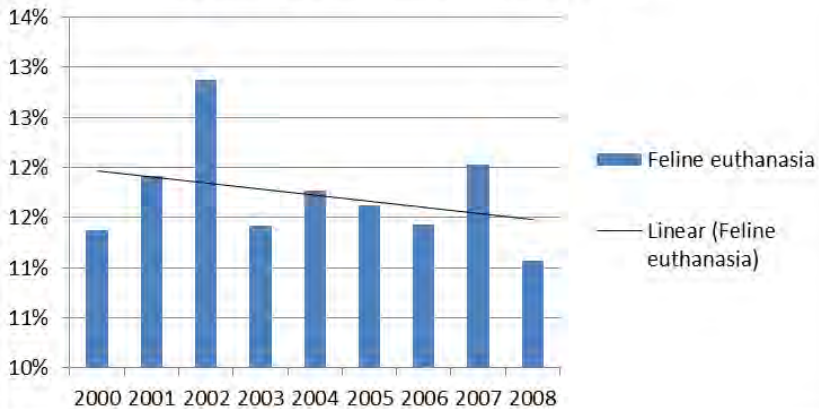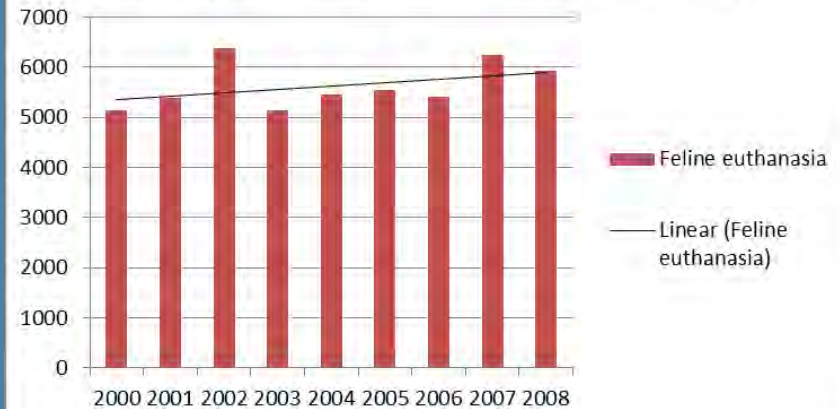
Outcomes: percent versus per capita

Death total per capita versus euthanasia percent
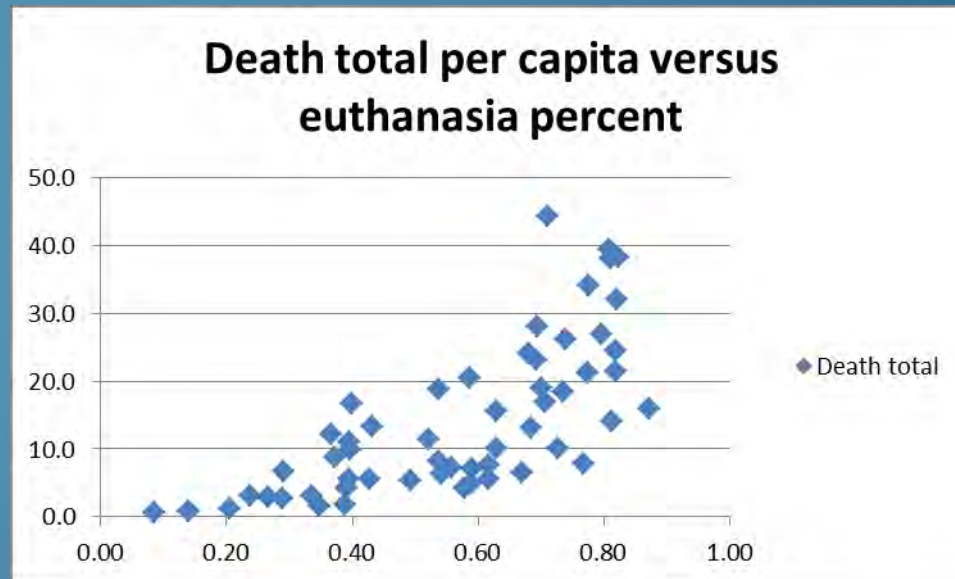
Comparing per capita
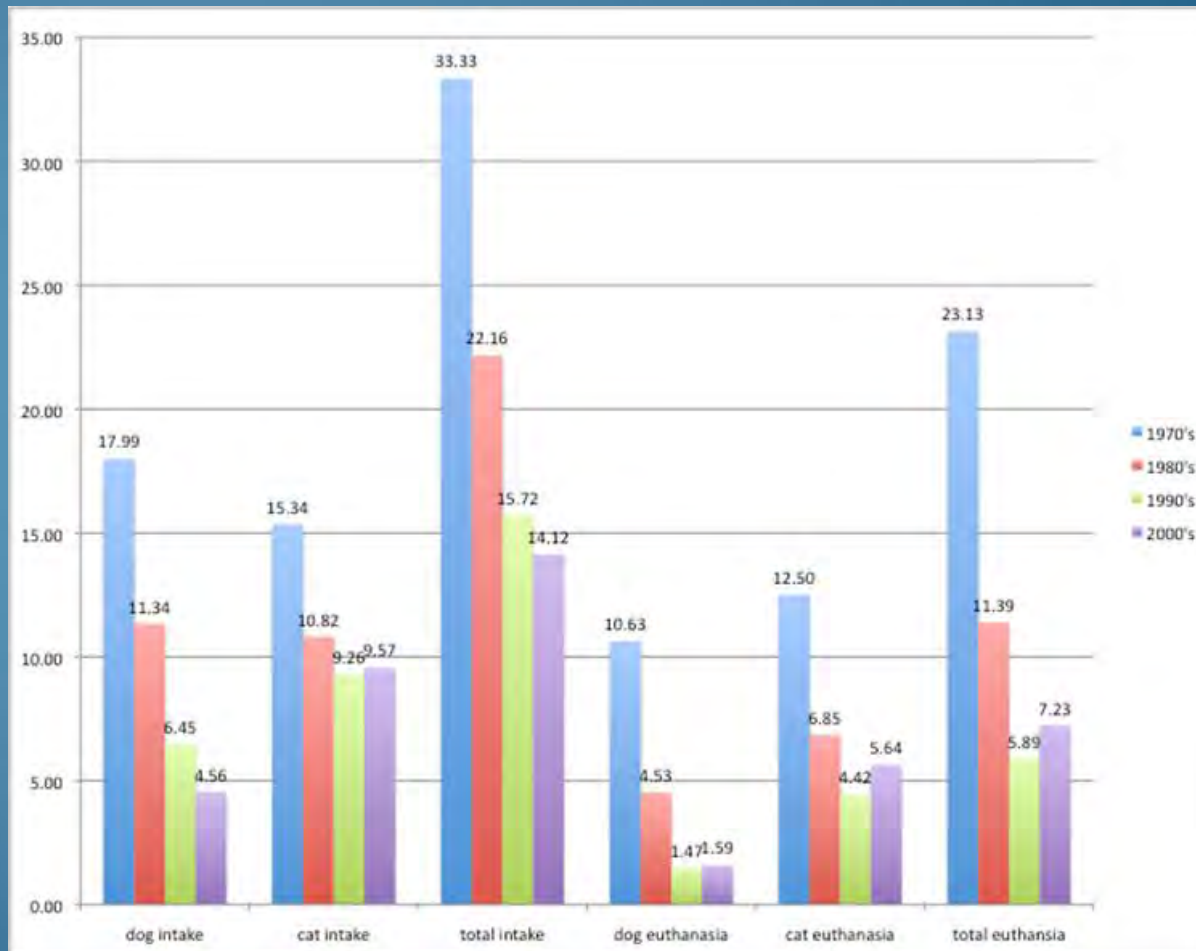
United States population grew ~ 40% during this time

Putting it all together

Comparison of S/N Surgeries, Intake, Adoptions, Euthanasia & Population
Clark County, NV: 1989-2006
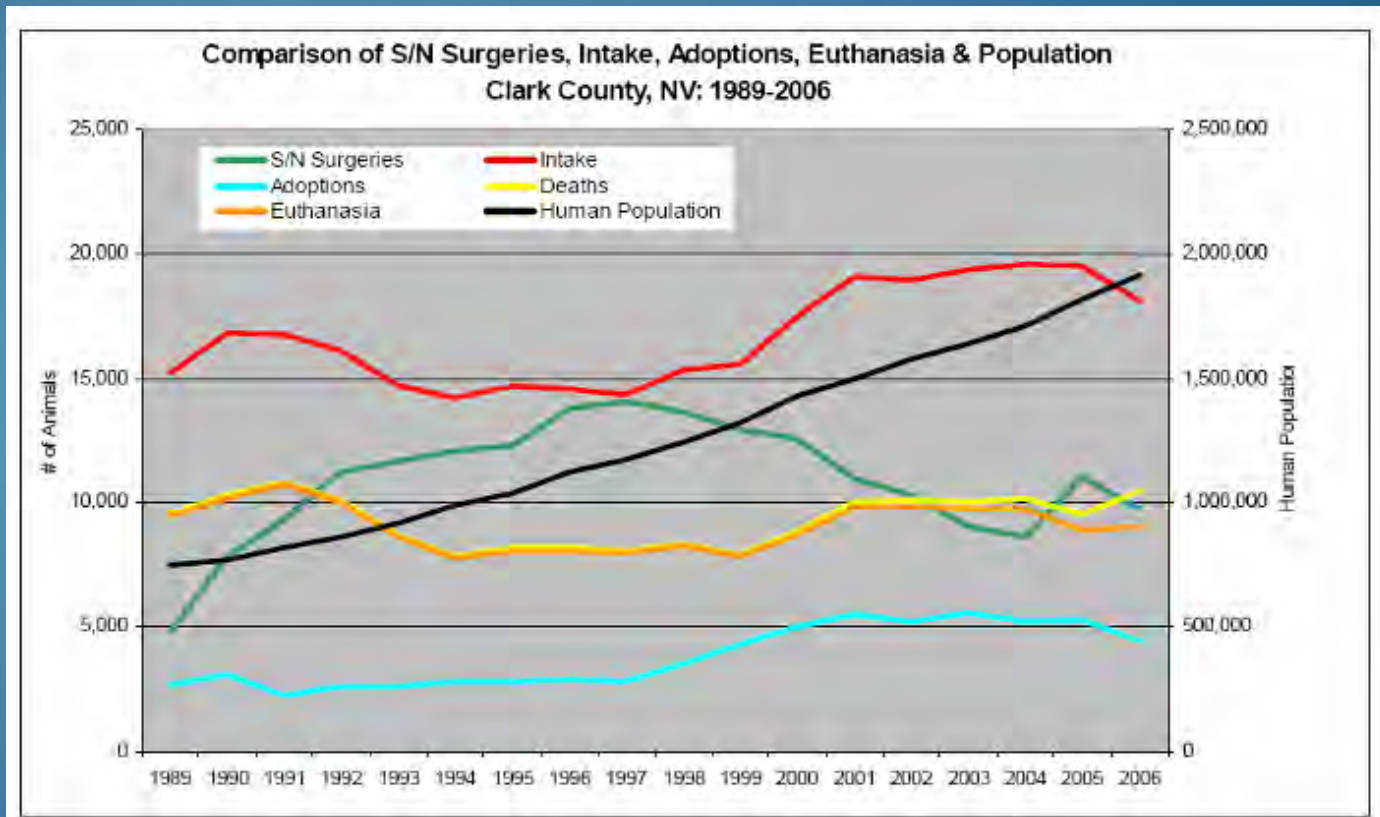
Putting it all together

- Careful monitoring, staying within capacity, and moving animals efficiently through the shelter →

- Less illness and more, quicker adoptions →

- Reduced sheltering costs →

- More resources for prevention →

- Fewer animals needing shelter in the first place →

A Matter of Measurement

Defining capacity and detecting crowding

BY KATE HURLEY, D.V.M.

Every dog deserves ample kennel space, but avoiding shelter crowding requires more than a calculation of the square footage available in the dog runs. MICHELLE RILEY/THE HSUS. PHOTO TAKEN AT WASHINGTON ANIMAL RESCUE LEAGUE

Kate Hurley, the director of the **UC Davis Koret Shelter Medicine Program**, has worked in the sheltering field since 1989. Her previous roles included jobs as a kennel attendant, adoption counselor, animal control officer, and shelter veterinarian. She shares this column with Lila Miller, the ASPCA's veterinary adviser and vice president of veterinary outreach.

There's no getting around it: Measurement and monitoring are not the most riveting subjects. I'm no math whiz, and I'm more comfortable describing how to get parvovirus out of a pile of laundry than how to get statistics out of a shelter software system. But Dr. Miller and I have been discussing the issue of overcrowding for several columns now, and this time I promised to get into the nitty-gritty.

The power that a well-designed measurement system gives us—to set meaningful goals, protect animal health, prevent problems before they occur, and ultimately to save more lives—makes this a subject we cannot ignore. To this end, I've asked a colleague, Dr. Sandra Newbury, to co-author this column, since

she and I have spent countless hours working on these questions together over the last few years.

It once seemed like an odd coincidence that Dr. Newbury and I both started our veterinary careers with a strong interest in holistic health, but eventually chose shelter medicine as our passion and (hopefully) lifelong focus. However, as we were discussing this column, we realized it's not a coincidence at all: As we envision it, shelter medicine is the ultimate holistic health project. The foundation of holistic practice is to bring the whole organism into balance, not merely suppress symptoms of illness as they arise. In a shelter, we can't afford to do anything less—with so many animals in our care, prevention of illness rather than treatment of symptoms is by far our most practical, powerful and

humane choice. It has become ever more clear that many of the disease issues that arise in shelters are symptoms of overcrowding, as defined in my previous column (when resources of staff time or facility space are outstripped by the number of animals in the shelter's care). We know this from seeing the dramatically low disease rates in shelters that have managed to achieve and maintain their ideal capacity—disease rates that would have seemed inconceivable for most shelters even a few years ago.

In order to avoid treating symptoms without correcting underlying causes, though, we need a problem-detection system that doesn't rely on waiting for signs of illness. As holistic practice aims to bring the whole organism or animal into balance, let me offer the image of a

Figuring out in advance how much the spring influx of kittens affects intake numbers can help shelter managers find space solutions that won't lead to crowding. MICHELLE RILEY/THE HSUS. PHOTO TAKEN AT WASHINGTON ANIMAL RESCUE LEAGUE

single organism as an example: Many of you have probably encountered a cat with kidney disease. Without regular check-ups, the condition may go unnoticed until the cat starts drinking and urinating dramatically more—or worse, progresses to the point of weight loss, vomiting due to stomach ulcers, hypertension-induced blindness, or any of the other consequences of failing kidneys.

By that time, irreparable harm may have been done to the cat's body. With regular blood work, the problem could have been detected much earlier, when dietary intervention and other measures would have been far more helpful. Dr. Newbury and I are proposing that some basic shelter statistics can be used as the organizational equivalent of that blood work—to predict and prevent crowding and all the attendant problems it brings to the "organism" of the shelter. These predictors can help stave off the staff struggles, disease problems, public outcry, and other more dramatic markers that something is amiss.

Laying the Foundation: Defining Capacity

The question seems simple enough: How much space do you have in your shelter, and how much do you need? Most of you know how many housing units (whether these are kennels, cages, or spaces in group housing) you have in different areas of the shelter.

Surprisingly often, though, we don't calculate whether the available space matches our *need*—perhaps because it feels like there will never be enough. While we can't end animal homelessness by building ever-larger shelters, there is certainly a minimum amount of space required for shelters to humanely, effectively, and safely fulfill their missions. This required capacity is largely determined by the number of animals admitted and their expected length of stay. Because intake may vary dramatically by season, it's important to predict required capacity based on the maximum monthly numbers, rather than on numbers averaged out over a year. Statistics should be calculated based on "monthly daily averages" (MDA).

Let's consider an example based on a given shelter's stray holding capacity. (Bear with me now; it's time for the math I warned you about.)

Shelter A keeps intake statistics on a monthly basis. Reviewing their data, staff notice that stray cat intake varied from a low of 60 cats in January to a peak of 300 in July. (For simplicity's sake, let's assume each month has 30 days.) The MDA intake for January is 60/30—two cats per day. The MDA intake for July is 300/30 = 10 cats per day. If the required hold period is seven days, in January Shelter A will need 14 housing units (two cats per day x seven days holding); in July it will need

70 housing units (10 cats per day x seven days holding) simply to meet the required holding times.

If Shelter A has 40 housing units for stray cats, it will be in good shape in January, but over capacity in July. Rather than waiting for that to happen, when such a trend is anticipated based on historical data, additional humane, safe housing can be developed for peak seasons and a plan made to limit or divert intake.

Not Quite So Simple: Determining Needed Adoption Capacity

Because there's usually a set time we plan to hold animals in pre-adoption areas, determining required capacity for these locations is relatively straightforward. However, the case is less clear for adoption areas.

Certainly, we want to be sure that anyone willing to adopt an animal does not leave a shelter empty-handed because too few animals were available to choose from. Shelters need sufficient space for a reasonable number and variety of animals. However, beyond a certain point, simply making more animals available—especially at a single location—logically will not increase adoptions, just as a store cannot expect to increase sales simply by piling more of the same product onto its shelves. In fact, more available animals may actually *decrease* adoption numbers if adopters are overwhelmed or if animal health or customer service suffer due to crowding.

Some shelters have chosen to make relatively few animals visible for adoption at any one time, finding that each animal is more likely to be carefully considered by adopters. Here's an email from one shelter director describing her experience:

"I made it a point to go into the cat room and watch people when they first walked in to gauge their reactions. We had more than 60 stainless steel 24-by-24 cages, four walls of cat cages almost floor to ceiling, each housing a cat or a few kittens. One could barely see the cats in the top row; people didn't stoop down to look in the bottom row, and potential adopters seemed plain ol' overwhelmed. Sooooooo ... I thought about display, marketing, disease transmission, etc. and came to the

An "animal care day" can be defined as one animal in a shelter for one day. Ten animals in a shelter for 10 days will have roughly the same requirements as 20 animals for five days, or two animals for 50 days, and so forth; every day, each animal will need a safe, comfortable space, food, cleaning, and care. Just as each shelter has some physical capacity beyond which animal care is likely to suffer, each shelter has a set number of "animal care days" available to use; beyond that number, crowding will occur.

decision to cut way back on cats. I knew it was unlikely that more people would come through the shelter, but very likely that if the cats were presented well they would move more quickly, and it worked. We now have 35 modular cages and ... our cat adoptions are up more than 20 percent. Our URI is well under control as well."

If this strategy is employed, additional capacity may be required in comfortable holding areas so that there are enough animals "ready to go" to immediately replace animals as they are adopted.

Unfortunately, there is no simple mathematical formula to tell us exactly

how many available animals will maximize the number of successful adoptions. But one way to test options could be via a simple poll of visitors to the shelter. If adopters often report that they did not see an animal of the type they were looking for, more adoption housing units may be needed. On the other hand, more counseling or adopter/animal matching programs may help steer adopters towards a pet they otherwise wouldn't have considered.

Another way to measure adoption capacity is to conduct tests over time: Change the number of animals available, and measure the number of adoptions against that number to see if plenitude had an effect on placements. You may find an optimal number, beyond which resources may be better used in off-site or mobile adoption programs, or for spay/neuter or other preventive services to keep animals from entering the shelter in the first place. Even an informal assessment can be valuable, provided you carefully track the impact of any changes you make to ensure there are no unintended negative consequences in terms of increased euthanasia or decreased adoptions.

There are a couple of caveats about monitoring the relationship between available animals and adoption numbers. One important consideration for cats is the effect of kitten season. The onslaught of kittens means a shelter's cat population is likely to peak at the same time that it has a high percentage of animals the public is likely to consider highly "adoptable." Therefore, the optimal number of cats may be higher in kitten season than at other times of year. Ideally, this expanded capacity need would be met by providing large, comfortable group housing or offsite care for adult cats, who are less likely to fly out of the shelter and less prone to infectious disease than susceptible kittens. Absent a specific plan for additional adult cat housing during kitten season, there is a tendency to meet the increased population demand by sliding into an overcrowded situation, which can compromise the health of both kittens and the adult cats patiently waiting for the end of the onslaught so they can have their chance at adoption.

The other caveat has to do with the adoption specials shelters sometimes run when crowding becomes particularly intense. Two-for-one specials, reduced or waived adoption fees, or other festive adoption promotions often occur when shelter capacity is maxed out. Looking over statistics from the period might create the impression that high housing numbers are correlated with higher adoption numbers when the reality may be that the crowding was simply the trigger for the event that led to increased adoptions.

However, there's no reason we need to wait for the shelter to be crowded to hold an adoption special! We can find ways to communicate the need for adopters without compromising animal care. To do this, we need to set "triggers" *other* than overcrowding to spur adoption events. These could be scheduled for times of peak intake (based on a review of monthly and daily averages), for certain holidays, or simply to spread adoption promotions throughout the year.

The Human Factor: How Staff Time Impacts Shelter Capacity

Measuring crowding goes beyond pure spatial calculations. A shelter may be functionally overcrowded even when cages are empty—if there is insufficient staff to keep up with animal care. Conversely, a higher-level capacity may be possible if there is abundant support to keep animals vaccinated, clean, and healthy; to ensure adequate enrichment and exercise; and to help adopters connect with the right animals.

But good statistics on intake, adoptions, and daily population averages can be helpful in predicting required staff time. Ideally, the latter should be determined by daily counts of all animals in the shelter. Most shelter software systems can easily report this, provided animals are correctly entered and exited (dispositioned) from the system, but even a simple daily hand count can be a valuable tool for predicting staff and housing needs.

Let's go back to Shelter A for a closer look. Let's say that in January, the average daily population in all areas of the shelter was a total of 100 cats and dogs, whereas

in July the average daily population was 400. How much staff time per day will be required to take care of those animals?

The answer depends, in part, on the method and standard of care. Some housing systems require less time per animal for basic cleaning and care; for example, double-sided kennels/cages and group housing tend to be less labor-intensive than single cages. Size and quality of housing, length of stay, and behavioral or medical rehabilitation goals also impact the time needed per animal. The negative impact of cramped dog runs, for instance, can be mitigated by taking dogs out for regular exercise and bathroom breaks, but this requires more staff involvement.

Ultimately, this decision reflects each shelter's standards: How much time per animal per day is required to maintain your standard of care? Once this decision is made, the calculations are fairly simple. Let's say Shelter A decides that 10 minutes per animal per day is adequate. Take January's 100 animals and multiply by 10 minutes per animal = 1,000 minutes, or about 17 hours of staff time. Summer's higher numbers mean that the same calculation will add up to about 67 hours of daily staff time in July. (Keep in mind that additional time must be allotted for nondaily procedures that happen for every animal, including intake, behavioral evaluations, and outcome processing such as owner reclaims, adoptions, transfers to rescue, or euthanasia. The time needed for each of these processes can be readily calculated to determine the total daily staff time for the basics of animal care.)

I realize that determining required staff and space capacity is not the same thing as making it happen. However, even if ideal levels can't be achieved today, tomorrow, or even this year, it's helpful to have a clearly articulated picture of the difference between current and optimal staff and shelter capacity. When we can clearly communicate the "capacity gap" to community members, private or public funding sources, and staff and volunteers, we are in a much better position to craft and monitor an effective plan to address these issues.

By getting a handle on what's happening today, shelters can invest in tomorrow—in whatever it takes to keep animals in homes and out of shelters in the first place. BILL PETROS/THE HSUS

The Impact of "Animal Care Days"

Most shelters are accustomed to monitoring intake and outcome numbers. We recognize that these numbers are critical to defining challenges and tracking progress. However, numbers alone do not tell the full story. I've already hinted at this in the examples above: Consider Shelter A, which admitted 10 stray cats a day in July and held each in pre-adoption for seven days. If the shelter's required holding time went from seven days to 14, the amount of space needed would double. The same effect would be seen if cats were not moved out of pre-adoption areas for seven extra days due to lack of staff or of space to move them into. *The true required capacity of a facility and staff is determined not by intake, but by number of animal care days.*

Let me explain: An "animal care day" can be defined as one animal in a shelter for one day. Ten animals in a shelter for 10 days will have roughly the same requirements as 20 animals for five days, or two animals for 50 days, and so forth; every day, each animal will need a safe, comfortable space, food, cleaning, and care. Just as each shelter has some physical capacity beyond which animal care is likely to suffer, each shelter has a set number of "animal care days" available to use; beyond that number, crowding will occur.

This can be easily calculated via the exercises above: Multiply the number of acceptable holding spaces—a figure governed by physical and staff capacity—by 365, and you have the annual "budget." So if Shelter A has 100 cat housing spaces, it has 365 x 100 = 36,500 cat care days to "spend" each year. That seems like a lot, but there may be thousands of cats passing through, each needing their own share of care days. (Ideally, animal care day numbers should be calculated based on different housing types, e.g. pre-adoption, adoption, isolation, etc.)

With only so many animal care days to spend, tracking *actual* animal care days is as important as tracking intake. This number can be calculated and reported by most software systems, either by summing daily inventory, or summing total days from intake to outcome for each animal in the system—or, as described above, a daily head count can be kept by hand and summed to provide monthly and annual numbers. Reducing the number of animal care days—by reducing animals' average length of stay by even a little bit—can dramatically reduce crowding even with no change in intake, capacity, or adoptions.

A note on how foster care plays into calculating animal care days: Clearly, the functional capacity of a shelter can be expanded through judicious use of foster homes. Because animals in foster care are not, for the most part, in contact with one another, they can go from intake to adoption with lower disease risk and lesser im-

pact on crowding in the shelter. "Foster care days" should, therefore, be considered a separate resource from shelter animal care days, and removed from calculations of turnover time described below. Still, it's important to remember that even fostered animals require some time from shelter staff to help with medical, behavioral, and logistical issues that arise, and unless foster parents are adopting out directly, their animals do need to come back to the shelter eventually. While foster care is often a cost-effective and humane method of housing, the same vigilance needs to be applied to ensure that capacity is not exceeded.

The Magic of Decreasing Turnover Time

I've said before that I don't believe increasing euthanasia is a necessary means to reduce shelter crowding. In fact, the logic presented above tells us that euthanizing more animals will not necessarily lead to any change in crowding levels: *Required shelter capacity is determined by intake and holding time, not by outcome type.* Decreasing intake by reducing the number of homeless animals is one crucial component of any strategy to address overpopulation, within shelters and communities. Spay/neuter outreach remains one of the most cost-effective and humane methods to accomplish this. Behavioral counseling, pet-friendly housing, affordable veterinary care, and many other preventive programs have the potential to reduce the need for shelter housing. These represent strategies for long-term success.

However, for the homeless animals in our communities *today*, we need a more immediate plan. This comes down to two options: limit the number of animals admitted, or reduce the amount of time each animal spends in the shelter from intake to outcome.

Limiting intake by policy is one solution to reduce crowding. Shelters may accomplish this by setting surrender appointments, redirecting animals to other shelters, or simply closing the doors when the shelter is full. But in many circumstances, limiting admission is not an option. Even for those shelters that do control intake, there is often a mission-driven desire to admit and humanely care for as many animals as possible—after all, one more animal that makes it through the shelter and into a home is one more life saved. Regardless of admission policy, reducing turnover time is a valuable strategy to serve more animals with the same amount of staff and space, and without suffering from crowding.

So how do we go about it? The first step is to establish some baseline measurements and set targets. Most software systems can report average, median and range of time to outcome for various outcome types, such as reclaim, rescue, adoption, transfer, and euthanasia. This report should be broken down by intake categories as well, as turnover may vary significantly by species, age, stray/surrender status, or other factors. (When monitoring, it's important to consider median as well as average; just a few animals with very long stays can throw off the turnover average substantially.) In smaller shelters without software systems, numbers can be tracked by hand and analyzed with a simple spreadsheet program; if monitoring on an ongoing basis is overly burdensome, tracking for a month or two will give a point of reference that can be revisited periodically. It's also good to figure out what average turnover time must be maintained in order to accommodate expected intake levels without crowding. That number can be derived from the annual care days available and the historical intake. (Like other measures, this may vary seasonally.)

Reduced Turnover Time = More Animal Care Days to Spend

For example, let's look at turnover time for one species over the course of a year. We calculated that Shelter A has 36,500 cat care days to spend per year. If they go over that budget, crowding will result. If their annual intake last year was 3,000 cats, they can afford to spend 36,500/3,000 = 12 days per cat. As with any budget, if they save a little here, they have more to spend there: If they can eliminate some delays and move some cats through in *less* than 12 days, they can provide for cats who need extra time. Just as those $4 coffees add up in a personal budget, little delays can become sig-

I often hear from shelters that say they can't afford the quality of housing or level of care required to keep most animals healthy—especially cats, who are so susceptible to stress. But what if those investments led to a 20 percent or greater savings in animal care through reduced illness?

nificant when so many animals are involved. And whether we're talking about dollars or days, going over budget—spending more than you really have—can mean serious heartache. Charles Dickens summed it up in this line from *David Copperfield*: "Annual income twenty pounds, annual expenditure nineteen pounds nineteen and six, result happiness. Annual income twenty pounds, annual expenditure twenty pounds aught and six, result misery."

Once your care-day budget has been established and you can see how much is spent in time-to-outcome by different categories, the next step is to analyze every possible point for unnecessary delays inherent in the system. The emphasis is on *unnecessary:* In some cases, longer holding times are perfectly appropriate. The goal in reducing turnover time is to decrease time-to-outcome, not to *change* the outcome from a positive (e.g. reclaim, rescue, or adoption) to a negative (e.g. sick or dangerous animal released due to inadequate screening, euthanasia of an animal who would have found a home). Turnover time is minimized by:

- Any program that speeds reclaim (e.g. microchipping, lost and found matching, good descriptions and photographs on the Internet);

- Any program that speeds adoption (e.g. keeping animals healthy, off-site and web adoption programs, optimizing number and presentation of animals, adopter-friendly policies, matchmaking programs);
- Careful attention to all steps in each animal's journey through the shelter, and daily assessment of this progress.

Danger points for increased turnover time include delay of any of those procedures that need to happen for an animal to move to its final outcome. This could include the posting of a stray's profile as a lost pet; health and behavioral evaluations that must happen before adoptability decisions are made; notification of rescue groups of an animal's availability (and pickup by rescuers); moving an animal from holding to adoption areas; performing spay/neuter surgery; or carrying out a euthanasia decision once it's been made. Ensuring that each of these steps takes place at the first possible moment can make a huge difference in terms of decreasing crowding without compromising live release. Ensuring sufficient staff and/or adjusting schedules so there is no lag time due to lack of staff coverage at any point is a worthwhile investment. This is one of those "spend now or spend more later" situations: Every procedure required by shelter policy must be carried out at some point in the animal's stay, so investing in more care days before those procedures happen will just increase the overall cost—not only for the shelter, but for the animals who wait out those extra days.

One of the most dramatic factors in turnover time—and most rewarding to address—is animal health, physical and mental. Healthy, relatively unstressed animals present well to adopters and move through the shelter. On the other hand, treatment for illness can easily tack a couple of weeks onto an animal's stay. If dozens or hundreds of animals are affected, this can quickly add up.

For example, let's go back to Shelter A one last time. Say 30 percent of the 3,000 cats it admits annually come down with feline URI while in the shelter's care (a reasonable estimate, from my conversations with shelters). Let's happily suppose that this shelter is able to treat for URI,

and the average time of treatment is seven days. Even with these modest estimates, that means they are spending seven days x 1,000 cats = 7,000 extra cat-care days on this disease. Of the shelter's 36,500 total available days, 7,000 amounts to almost 20 percent of its total resources.

I often hear from shelters that say they can't afford the quality of housing or level of care required to keep most animals healthy—especially cats, who are so susceptible to stress. But what if those investments led to a 20 percent or greater savings in animal care through reduced illness? Animal welfare gains aside, how long would it take to offset that initial cost? The potential time savings should be carefully factored in when considering any investment, whether it's fancy new kennels, additional animal care staff, or a treatment that shaves time off recovery from URI. In this context, optimal care may prove to be something we can't afford *not* to provide.

Success That Builds On Itself

The beauty of decreasing turnover time is that it can be self-perpetuating, the opposite of a vicious cycle. As turnover time decreases and the daily population goes down, it gets easier to prevent delays by staying on top of the needs of each and every animal. With more space and staff time to devote to each animal, it is easier to keep each one healthy—and as healthy animals move through the shelter faster, turnover time is further reduced. When the public encounters a clean, welcoming environment populated by healthy, contented animals, perhaps adoptions will even increase. In the best-case scenario, with fewer animals and less illness to manage in the shelter, we can use our extra resources, time, and energy for preventive programs. By getting a handle on what's happening in the shelter *today*, we expand the possibility for investing in tomorrow—in spay/neuter, behavioral counseling, accessible veterinary care or whatever it takes to keep animals in homes and out of shelters in the first place.

In my very first column for *Animal Sheltering*, I told the story of a shelter dog named Tiffany, a wiry, grizzled, wolf-

hound/terrier mix I fell in love with nearly 20 years ago. I was a recently hired kennel attendant, busy cleaning runs one morning, when I noticed her showing the first ominous symptoms of kennel cough. For some of you, it might be hard to imagine that the only two choices we knew about at that shelter back then were to euthanize the dog immediately or permit disease spread to all the others in our care. Luckily for me and Tiffany, a perfect adopter came by at just the right moment and spared me from taking the next dreaded step. Still, I've never forgotten her, or the many who weren't so fortunate. That painful, precarious moment underlies the track my career has taken since then—if I could give anything to my beloved field, it would be to release us from those terrible choices where a tragic outcome awaits whichever way we turn.

That was a long time ago, and we now have far more tools to protect populations *and* provide treatment for individual animals. Still, there remains a deeply ingrained belief—within our profession and our society—that a fundamental choice remains: We can either provide better care for fewer animals and consequently euthanize more, or we can lower our standards of care and save more lives. If that choice were real, it would indeed be a hard one. However, just as there was a third option for Tiffany, I believe another path exists. I hope we have made the case for that path in these columns. As many shelters have already proven, there needn't be conflict between good care for every animal and success in every aspect of the shelter's mission. With attentive population management, our hands are untied: We can take advantage of the many tools now available to maintain shelter animal health and comfort without fearing that euthanasia must increase as a result. AS

Sandra Newbury, D.V.M., contributed to this column. Newbury serves as the national shelter medicine extension veterinarian at the Koret Shelter Medicine Program at UC Davis.

An extended version of this column can be found at the program's website, sheltermedicine.com.

What is Your Rate?

Understanding the Asilomar Live Release Rate, ASPCA Live Release Rate and Save Rate

The NATIONAL FEDERATION of HUMANE SOCIETIES

Animal welfare organizations are talking about data and data collection. Whether it's a discussion about transparency (how many animals do you handle and what are their outcomes), confusion around different ways of measuring success around lives saved, or debating the pros or cons of what strategy for program measurement best meets the needs of the agency and community, clearly we are engaged in a national dialogue around the measurement of animal sheltering data.

This document was developed by the National Federation of Humane Societies to add to that dialogue, and to provide information and support to those animal welfare organizations struggling to understand what different rates used in our work mean. Basic information is provided here regarding the Asilomar Live Release Rate, the ASPCA's Live Release Rate and the Save Rate.

<u>Using this document</u>
The purpose of this document is to provide an introduction to each "rate" described. For this purpose these definitions are used:

Intake:	The live animals admitted to a shelter
All Outcomes:	The final disposition of animals admitted to a shelter (adoption, return to owner, transfer, euthanasia, shelter death, etc)
Euthanasia Outcome:	Animals admitted to a shelter who are euthanized
Live Outcomes:	Animals who leave a shelter alive through adoption, return to owner, transfer to another organization for adoption, or any other lifesaving program

Also, in order to demonstrate how these "rates" might measure the work of an animal sheltering organization, the following fictional statistics are used for the "Dreamy Valley Humane Society".
Dreamy Valley Humane Society – Annual Statistics for 2010
> Intake: 2000 animals
> Live Outcomes: 1000 animals
> Euthanasia Outcomes: 500 animals
> Owner Requested Euthanasias: 50 of the animals euthanized
> > Unhealthy/Untreatable: 25 of the 50 Owner Requested Euthanasias
> All Outcomes: 1500 animals (for this example, is Live Outcomes plus Euthanasia Outcomes)

ASILOMAR LIVE RELEASE RATE

The Formula: (Live Outcomes) divided by (All Outcomes minus Unhealthy/Untreatable Owner Requested Euthanasia)

What does Asilomar Live Release Rate tell us: What percentage of animals with an outcome left the facility with a Live Outcome (adoption, return to owner, etc)

What does Asilomar Live Release Rate NOT tell us: How Outcomes (All or Live) relate to Intake

The Asilomar Accords were developed to provide a uniform method for collecting and reporting shelter data. This method assigns each animal, upon admission, a conditions status of either "healthy", "treatable", or "unhealthy/untreatable". What conditions or behaviors actually fall into each category is defined by the individual organization or by a community coalition of animal sheltering organizations. The definitions are expected to reflect the community standards of what conditions are considered "healthy", "treatable", and "unhealthy/untreatable". The community standard is defined as what a reasonable pet owner in your community may consider as healthy, treatable or unhealthy/untreatable. Because the condition definitions are community based, comparison at a regional or national level is problematic as definitions will vary. For the purpose of calculating the Asilomar Live Release Rate, the definition of what is "unhealthy/untreatable" directly impacts the calculation. Owner Requested Euthanasia Outcomes for animals initially defined upon Admission as "unhealthy/untreatable" are not included in the calculation of an Asilomar Live Release Rate (see The Formula above).

The Asilomar Accords emphasize the importance of transparency for animal sheltering organizations. Also, using the development of community definitions for the condition of animals as they are admitted has encouraged the development of community coalitions focused on improving Live Release Rates at a community level. It is important to recognize that condition definitions only define a status at a specific point in time (generally at the time of admissions). The definitions do NOT define outcome. A healthy animal may be euthanized, an unhealthy/untreatable animal may be rehomed.

Overall, the Asilomar Live Release Rate does not provide insight regarding the Intake of an animal sheltering organization. Many animals may be admitted, and sheltered for a long period of time, and their status will not be reflected by this outcome focused measurement.

By the numbers:
The Dreamy Valley Humane Society's Save Rate would be calculated this way:
    1000 Live Outcomes divided by
            (1500 All Outcomes – 25 Unhealthy/Untreatable Owner Requested Euthanasias)
    1000/(1500-25) = .68

The **Asilomar Live Release Rate** is **68%**.

ASILOMAR "LITE" LIVE RELEASE RATE

The Formula: (Live Outcomes) Divided by (All Outcomes minus Owner Requested Euthanasia)

This formula is the same as the Asilomar Live Release Rate with one exception – it does adjusts All Outcomes by subtracting all Owner Requested Euthanasias, not only those Owner Requested Euthanasia's identified upon admission as "unhealthy/untreatable". This formula is an Asilomar-type option for those organizations or communities without the capacity to assign a conditions status for animals admitted (i.e. "healthy"," treatable"," unhealthy/untreatable"). Like the Asilomar Live Release Rate, this outcomes focused formula does not provide insight into the admissions of a sheltering organization. Many animals may be admitted, and sheltered for a long period of time, and their status will not be reflected by this outcome focused measurement.

The Asilomar Live Release Rate and Asilomar LITE Live Release Rate both provide insight into a shelter's outcome related activity. This may be a helpful measure for organizations whose admissions may fluctuate significantly because of animals who may not be available for adoption for some time, like animals taken into custody during animal cruelty investigations.

If a sheltering organization moves animals through their shelter efficiently to an Outcome, over time, their Asilomar Live Release Rate and ASPCA Live Release Rate will be very similar as All Outcomes will mirror Intake.

By the numbers:
The Dreamy Valley Humane Society's Save Rate would be calculated this way:
> 1000 Live Outcomes divided by (1500 All Outcomes minus 50 All Owner Requested Euthanasias)
> 1000/(1500-50)= .69

The **Asilomar LITE Live Release Rate** is **69%**.

ASPCA LIVE RELEASE RATE

The Formula: Live Outcomes divided by Intake

What does the ASPCA Live Release Rate tell us: Live Outcomes as a percentage of the animals admitted

What does the ASPCA Live Release Rate NOT tell us: How Live Outcomes compare to All Outcomes

The ASPCA Live Release Rate differs from the Asilomar Live Release Rate in that Live Outcomes are a percentage of Intake, not All Outcomes. By using Live Outcomes and Intake, the rate measures activity related to the impact of animals admitted and the number of Live Outcomes. The number of animals admitted to an agency will impact the resources available for live-saving programs (and thus Live Outcomes). This formula brings that impact directly into the calculation of a Live Release Rate. For example, when Live Outcomes are increased AND strategies are used to decrease Intake, the live release rate goes up. If the impact of animal Intake is not included (as in the Asilomar formula), a crucial component (Intake) of the organization's work is not reflected in the Rate and an opportunity to examine or even mitigate the impact of admissions may be missed.

By the numbers:
The Dreamy Valley Humane Society's Save Rate would be calculated this way:
   1000 Live Outcomes divided by 2000 Admissions
   1000/2000 = .5

The **ASPCA Live Release Rate** is **50%**.

SAVE RATE

The Formula: (Intake minus Euthanasia Outcomes) divided by Intake

What does "save rate" tells us: What percentage of the animals admitted were NOT euthanized.

What does "save rate" NOT tell us: What percentage of the animals admitted had or will have a Live Outcome.

Strength/Weakness
Because the data used by the Save Rate formula only utilizes Euthanasia Outcomes and Intake, the ability of the "Save Rate" to tell us about the work of the organization is limited. Using this formula – "Save Rate" could also be called the "Not Euthanized Rate". This formula is based on the assumption that an animal saved is an animal NOT euthanized. If your organization defines an animal saved as one with a Live Outcome (adoption, returned to owner, etc), then this "Save Rate" will not be helpful as this formula does not take Live Outcomes into account.

Using this formula, a shelter may have a high "Save Rate" and be admitting many animals, adopting out few, euthanizing few and sheltering many. Animals admitted to a shelter, and housed for years without a Live Outcome, are "saved" according to this formula.

By the numbers:
The Dreamy Valley Humane Society's Save Rate would be calculated this way:
     (2000 admissions minus 500 euthanasia outcomes) divided by 2000 admissions
     (2000 – 5000)/2000 = .75

The **Save Rate** is **75%**.

In Summary

The Rate	The Formula
Asilomar Live Release Rate	Live Outcomes divided by (All Outcomes minus unhealthy/untreatable)
Asilomar LITE Live Release Rate	Live Outcomes divided by All Outcomes
ASPCA Live Release Rate	Live Outcomes divided by Intake
Save Rate	(Intake – Euthanasia Outcomes) divided by Intake

Rates will Fluctuate

It is important to recognize that each formula uses measurements over a specific period of time, not a specific population of animals. An animal may be admitted during one time period measured and have an outcome during a different time measured.   Over short periods of time when working with a smaller data set, this can cause a "rate" to fluctuate significantly. For example, using the ASPCA's Live Release Rate, a large scale cruelty case occurring at the end of a month would significantly increase Intake and directly impact the ASPCA's Live Release Rate (as measured for that <u>month</u>), causing a decrease in rate. Alternatively, if those same cruelty case animals are made available for adoption all at once and get adopted quickly, the sudden increase in Live Outcomes during that period will cause the rate to increase. Over longer periods of time, and with larger data sets, the potential impact of these types of events is diminished.

Devilish Details

Of course, as with most complex challenges, the devil is in the details. There is a great deal of detail, debate and discussion around each of the reporting formats/rates described which is not included here. Again, this document should be considered an initial introduction to each rate only. The topics below simply highlight some of the current and challenging "details".

Community Definitions

The Asilomar Accords were developed not only to encourage shelters to be transparent and consistent in reporting their data, but also to encourage and foster the development of community coalitions. The development of community based definitions of healthy, treatable and unhealthy/untreatable as a component of a coalition may be both time consuming and challenging, but the specific exercise also provides an opportunity to build and strengthen potentially life-saving collaborations.

Feral Cats

Measuring the impact for and of feral cats in a community can be challenging. It begins with the simplest (and often quite challenging) question . . . what is a feral cat? Identifying which cats are feral (or unsocial), and what their status may be in a community has proven to be difficult.

Regardless of the "rate" used by a sheltering organization, recognize that within most communities feral cats are at risk and are a population which invites careful consideration and analysis to determine how that risk might be mitigated.

Owner Requested Euthanasia

This is an area of measure that is susceptible to significant fluctuations depending on the definition used. What if an owner arrives at the shelter with a pet whom they hope the shelter can rehome – but the pet has a condition which causes the shelter to be unable to provide rehoming services. Knowing that euthanasia is the only option for the pet at that shelter, the owner still decides to relinquish the pet for that service. Is it an owner requested euthanasia? Or is it an Intake and Euthanasia Outcome? This is an important area for organizations to consider specifically in terms of measurement, transparency and impact.

Identifying what Population is at Risk

Numbers and statistics can help drive innovation and uncover opportunity. No matter which formula is used by an organization to measure their "rate", it is crucial to not overlook the opportunity to look at data in detail and identify specific populations of animals sheltered who may be a risk. By doing so, organizations may find opportunities to significantly increase the lives saved in their community by targeting life saving measures for those animals most at risk.

Died in Care (pull out of Lost/Unknown Disposition category in Asilomar)

And finally, it is important to track animals who died or were lost in care while sheltered. The Asilomar Accords currently report animals in this category as a combined figure, however there is value in segregating this information. Carefully monitoring those animals who died in care and the factors which caused their death is an enlightening measure of shelter activity and though not tracked specifically in all of the strategies described, should be a data point considered by shelter leaders.

More to Measure than Rates

While calculating one of these rates may be useful in developing goals, there are many other data indicators which will better help an organization understand or evaluate their shelter operations and improvement toward decreasing risk for shelter animals. Some examples of indicators to watch are:

- Admissions
- Adoptions
- RTO

- Euthanasia
- Length of Stay

As discussed previously in this document, the careful examination of such data can help an organization identify specific populations of animals who are most at risk within the shelter and aid in the timely development of strategies to mitigate the identified risk.

Data from the communities an organization serves is yet another potential source of important information when evaluating shelter programs and impact. For example, a careful review of where

animals are admitted from and for what reason can lead to the development of specific strategies or programs to address community issues (targeted spay/neuter for certain zip codes/species, on the street education/engagement of pet owners, etc).

As a community of animal welfare organizations, we must continue to embrace the need to not only do good work, but measure and evaluate the work we are doing. There is much to measure and learn from beyond your agency's "rate" for lives saved.

In Conclusion

We encourage shelter leaders to explore all options regarding how to measure and publicly report on the work of their organizations. In some cases, there is much to be learned by examining statistics using a variety of methods. For more information regarding data gathering and analysis, please visit the websites of these National Federation members or partners.

Asilomar Live Release Rate	www.asilomaraccords.org
ASPCA Live Release Rate	www.aspcapro.org
Denver Metro Animal Coalition	www.mdsalliance.org
Maddie's Fund	www.maddiesfund.org
The Humane Society of the United States	www.animalsheltering.org
UC Davis Koret Shelter Medicine Program	www.sheltermedicine.org

CITY OF ARLINGTON ANIMAL SERVICES DIVISION

BEST IN SHOW

BEST PRACTICES BENCHMARK STUDY
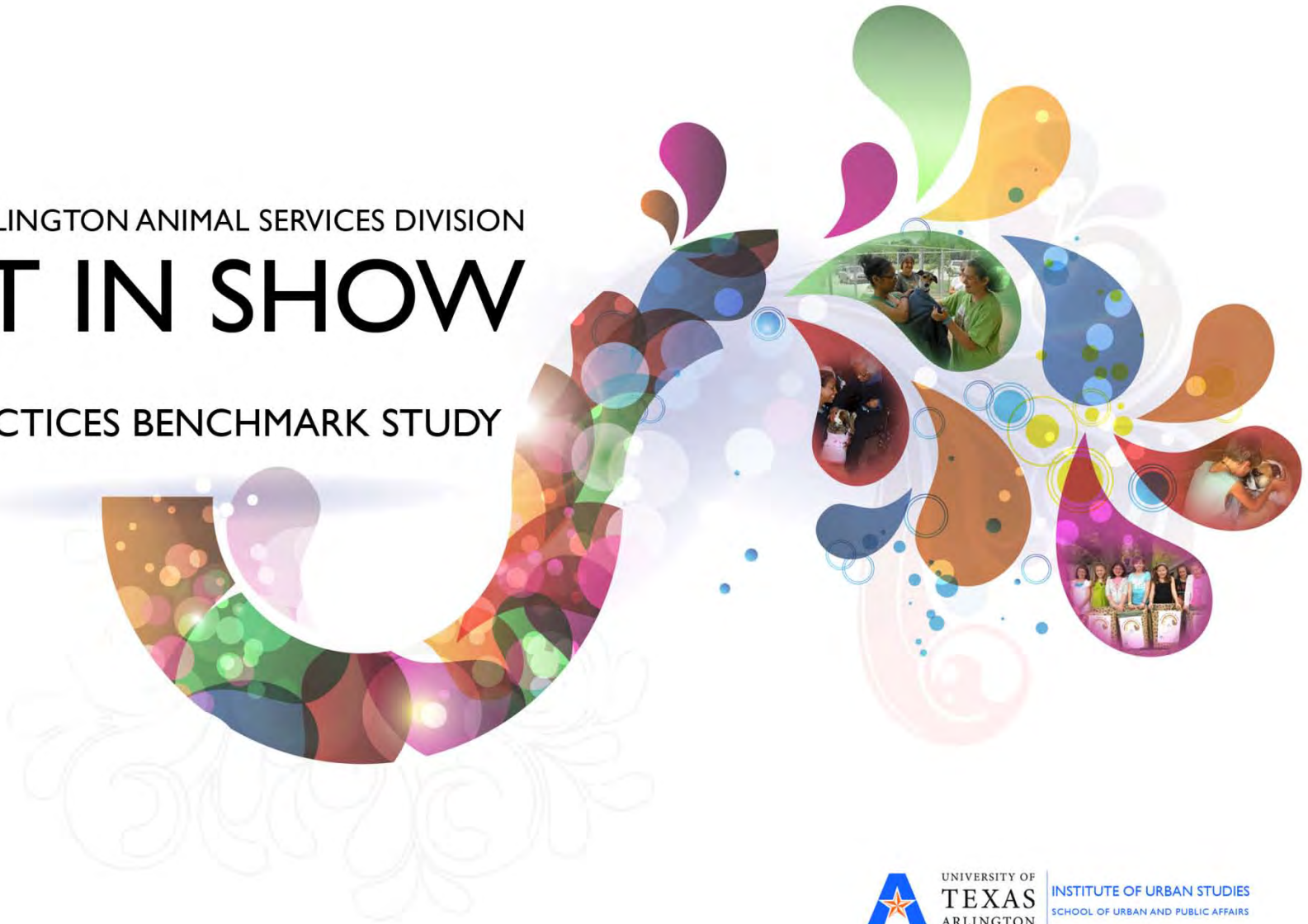
UNIVERSITY OF
TEXAS
ARLINGTON

INSTITUTE OF URBAN STUDIES
SCHOOL OF URBAN AND PUBLIC AFFAIRS

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Contents

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INTRODUCTION

The City of Arlington and the Institute of Urban Studies (IUS) in the School of Urban and Public Affairs at UT Arlington entered a contract in May 2010 under which the parties agreed to collaborate on a five-year strategic plan for the Arlington Animal Services Division (AAS). It was agreed that, as a first step, IUS would undertake a best practices benchmarking study. Benchmarking is a process by which the best practices of others in the same business are identified and evaluated for possible adoption where the result would be better performance. The aim of benchmarking as an element in strategic planning for Arlington Animal Services was to identify unique and interesting animal service programs in use elsewhere in the state and nation. Study results would then be compiled into a report that would be made available to division staff and advisory committee members in advance of the strategic planning retreat

Arlington Animal Services...

Continues to be a highly regarded shelter by citizens with dedicated staff

Maintains high levels of service for key animal service activities while being fiscally responsible

Most operations subject to current city budget constraints

Staff is looking for ways to minimize budget impact while raising money, building community support and encouraging volunteerism

(scheduled mid-August 2010). The object of preparing and circulating the report was to raise the level of possibility thinking among retreat participants by providing them with a wealth of ideas, some of which might be incorporated into the annual work program of AAS.

The approach taken by the study team was shaped by several considerations. One consideration was that AAS already is a highly regarded animal care and welfare organization. Despite the budgetary effects of a poor economy, AAS remains fiscally responsible while maintaining exemplary levels of service in its shelter operations, animal care and control activities, adoptions, and community involvement. Anything unique and interesting we were likely to discover from our investigations of other programs would have to be classified as little more than "icing on the cake."

Also the study team recognized that Arlington's animal services program is a line item in the city budget. Therefore, it is vulnerable to hiring freezes, salary caps, and other cost-cutting measures faced by other city departments. And, if we are to believe many of our most influential economists, this is a situation that is not likely to change for years to come.

It cannot be overstated that virtually any initiative has a direct or indirect budget impact. The current line item budget for AAS covers just

BASIS FOR BENCHMARKING

- *AAS staff suggestions*
- *Noted by the HSUS or SPCA International*
- *Asilomar Accords participant*
- *Contacted a leader from the organization*

the basics at best, and is expected to be smaller next year. This even has consequences for programs and activities that were viewed as not having any effect on the budget. For example, while volunteerism is viewed as a method of increasing assets of an organization, there are hidden costs associated with volunteers such as the dedication of staff resources and time. Accordingly, special attention was given in the study to best practices that have been initiated with minimal budget impact and that have been successful in raising money, building community support and encouraging volunteerism.

Benchmarked organizations identified for the study were selected based on the criteria shown below.

- *Suggested by Arlington Animal Services.* During the process, IUS interviewed animal and community service leaders and received further recommendations for contacts with exemplary local and national animal welfare and services organizations.

- *Mentioned as a notable organization by the Humane Society of the United States (HSUS) and SPCA International.* IUS reviewed articles and publications produced by both SPCAI and HSUS such as the *Shelter-of-the-Week* section and the magazine *Animal Sheltering* to find best practice examples.

- *Participant in the Asilomar Accords.* The Asilomar Accords were created

FOUR TYPES OF BENCHMARKS

1. *VISIBILIBITY & AWARENESS*
2. *RAISING MONEY*
3. *SERVICES FOR VOLUNTEERS*
4. *COST SAVING AND OPERATING EFFICIENCIES*

by a group of industry leaders such as HSUS and ASPCA "for the purpose of building bridges across varying philosophies, developing relationships and creating goals focused on significantly reducing the euthanasia of healthy and treatable companion animals in the United States." IUS looked at members of the Asilomar Accords as a basis for consideration of industry best practices since these organizations follow standards in tracking statistics such as adoptions and euthanasia rates at their shelters.

- *Availability of key contacts in benchmark organizations*. IUS included best practice models from of organizations that were accessible by telephone or email. After conducting research on key organizations, IUS contacted leaders of those organizations to get insights that were not available through second-hand sources.

The best practices benchmarking study has been completed, and this report describes dozens of model programs that are worthy of classification as "best practices." For convenience in reading the report, the best practices identified by the study team are grouped into four categories: 1) increasing the **visibility and awareness** of shelter activities; 2) **raising money** through grants, donations or special gifts; 3) developing spin-off and support **services for volunteers**; and 4) achieving **cost saving and operating efficiencies** without sacrificing animal welfare and services.

In each category we have included Arlington Animal Services programs of real merit that are deserving of the "best practice" designation. Other programs are described in detail with a rationale for its inclusion and contact information provided for readers who might wish to read more about the program. Program information that we found particularly interesting but too extensive to describe in the body of the report can be found in an Appendix.

Our thanks to Lee Hitchcock, Mike Bass and Jay Sabatucci for the time and effort they have taken to provide the study team with information on the history and operations of AAS and suggestions on locating the organizations that have proven to be fruitful sources of best practice information for this study.

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VISIBILITY AND AWARENESS

Practices that increase the visibility and awareness of shelter activities within the community and beyond: This category contains organizational benchmarks that excelled in providing information to customers, donors, staff, and other agencies through the use of mass-media, educational programs, or events. Currently, Arlington Animal Services (AAS) engages in many of these activities and performs many of them well. However, the vignettes below illustrate new ways AAS may engage its clients that may improve efficiency and effectiveness without a substantial burden to the budget.

E-newsletters, local newspapers, etc

"Keeping on top of the latest techniques and technology makes us an outstanding organization."

Nicole Schimming, Humane Education Manager, Dumb Friends League

While newsletters and reports may take a great deal of time to produce, the benefit of keeping key donors and officials informed of animal shelter activities may outweigh the costs. The City of **Arlington Animal Services (AAS)** has a link on its website to the *CatWatch* newsletter by Cornell University College of Veterinary Medicine. Below are a few examples of animal shelters that have their own newsletters to communicate with

Newsletters and reports may take time to produce, but the long term benefit of keeping key donors and officials informed of animal shelter activities may outweigh the costs.

THE DIGITAL DISH

JUNE 2010

Source: Humane Society of Boulder Valley

community members. Some also use the local newspapers to share animal shelter news, events and adoptions.

- The **Tri-City Animal Shelter and Adoption Center**, a collaboration of the cities of Cedar Hill, Duncanville, and DeSoto (Texas), communicates with its citizens through the e-newsletter on its website and the local newspaper e.g., posting their *Pet-of-the-Week* in the local newspaper. For more information, http://www.cedarhilltxgov.org/index.aspx?NID=1020

- The City of **San Antonio Animal Care Services** department has a *Paws* e-newsletter which is distributed monthly on the website. At times, print copies are issued at events. The department also has another newsletter targeted for internal staff to keep them abreast of shelter-related issues. For more information, http://www.sanantonio.gov/animalcare/?res=1680&ver=true

- The Digital Dish is a monthly e-newsletter put out by the **Humane Society of Boulder Valley (HSBV)** that informs readers of upcoming events, new programs, and stories about HSBV. The annual report is posted on the HSBV website to inform readers of the high points of the year. Both publications keep donors, committee members, and customers apprised of changes at the shelter. For more information, http://hsbv.boulderhumane.org/hsbv/go.asp?mode=pubs

Radio

AAS currently maintains a pet of the week program and other programs that bring attention to adoptable pets.

- What makes **Multnomah County Animal Services** in the Portland area different is the use of the air waves as a tool of outreach. The county program partners a local radio station to broadcast a pet of the week live with a simulcast via webcam on the station's website. This program brings attention to pets and gets outside organizations involved in and aware of animal welfare activities. For more information, http://www.k103.com/pages/pages/petoftheweek.php

Blogging

AAS does not currently use a blog and it may not be practical to allocate resources for this in a time of severe budget restraint. However, it is a tool used by many benchmarked organizations and may be useful in the future. An example of a quality blog is "Walk the Blog" published by the CEO of the **Humane Society of Boulder Valley (HSBV)**. The blog is organized so that supporters in the area can subscribe to or visit to get information about programs, education, or past and present events. The blog is an inexpensive way for HSBV to announce and shape important events and get feedback on

Source: Multnomah County Animal Services,
Humane Society of Boulder Valley

Radio, blogs, and social media are great tools for information on adoptions, events, or general outreach.

its activities. For more information, http://hsbv.typepad.com/walktheblog/

Social Media and Networking

AAS is helping to bring attention to other organizations using social media and networking tools like Facebook, Twitter, or You Tube. However, it is missing an opportunity to publicize the great work being done at its own shelter.

- A superb example of an organization using social media is the **Humane Society of Boulder Valley (HSBV)**. Hosted by the HSBV, the free and low maintenance use of Facebook, Twitter, and You Tube pages allows customers and volunteers of the animal welfare organization to post information about pets. These social networking tools are used to post events, bring attention to adoptions, and generally keep people informed. For more information, http://twitter.com/humaneboulder; http://www.facebook.com/pages/Boulder-CO/Humane-Society-of-Boulder-Valley/84603385014

TV Shows on Public Access Channels

The **City of Arlington** has a cable public access channel (Channel 16). Other city animal services have utilized such an opportunity to produce animal services TV shows where they showcase the animals that are up for adoption and other shelter activities. Below are a few examples of animal shelters that use public access TV channels to host animal shelter shows.

- **Prairie Paws Adoption Center** in Grand Prairie, TX, streams programming on GPTV (Grand Prairie TV) Channel 16. Owned and run by the City, *Prairie Paws* talks about adoption and other pet issues. A short clip on its website is used to advertise the TV show.

- The City of **San Antonio Animal Care Services** department uses TVSA Channel 21 to host a show called *Pawsitively Pets.* The show airs three times a week: Tuesdays at 9.30am, Wednesdays at 9.30pm, and Fridays at 2.30pm. It is a half-hour show that is available on basic cable promoting shelter activities and ends with showcasing adoptable pets. The goal of the show is to increase responsible pet ownership. The Public Information Officer (Lisa Norwood Tel: 210-207-3338) runs the show (i.e., films, edits and decides content of the show). The city's studio and video equipment is available free-of-charge to air the show.

"We are able to meet our goal of encouraging responsible pet ownership through our TV show at a cost of little to none."

- *City of San Antonio, Public Information Officer, Lisa Norwood*

A short video is a simple, interactive tool that could be used to better inform citizens and save staff time...
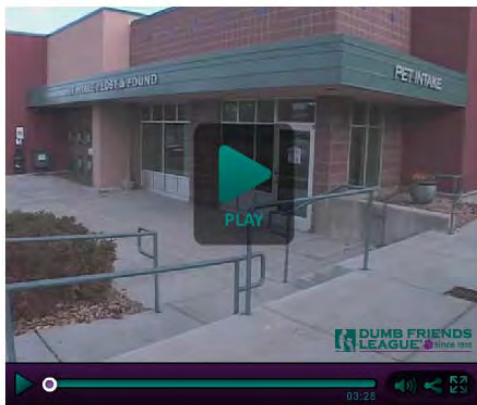
Source: Dumb Friends League

Lost & Found Instructional Video

Where to look for a lost pet or what to do with a stray can be frustrating for a citizen. AAS addresses this issue through its lost and found process. On the city's website, the process of finding lost pets is explained. Additional photos of strays and a link to lostandfound.com is provided to help citizens locate pets.

- **Dumb Friends League** in Denver, Colorado goes a step further with its Lost & Found Instructional Video. The video, along with other pointers, explains to citizens what to do if a pet is found, where to look for the pet, or if necessary, how to release a pet to the shelter. This three-minute video is a simple, interactive tool that could be used to better inform citizens and save staff from having to field questions from confused pet owners. For more information, http://www.ddfl.org/lostpets.htm

Websites

The AAS website carries a lot of information on shelter programs and events. It also makes use of links to other websites that may be of interest to the public. In addition, there is a picture slideshow of recent events, list of services offered, Pets-of-the-Week section and a Tips-for-Your-Pet section, among others.

The AAS website reflects the shelter's exemplary programs...but the design may overwhelm first-time visitors.

Source: City of Arlington Animal Services

While the AAS website reflects the shelter's exemplary programs and services, it is not used to promote with pride its state-of-the-art facility. People who have never visited the animal shelter may be unaware of this gem. The use of pictures and text on the website that explicitly reflects the facility will enhance the public view of AAS. Another thing of note is the excessive use of text on the AAS web pages. An alternative is to reduce the amount of text and provide links that take visitors to different pages of the site. The over-use of text on each web page may discourage visitors from looking at the website for shelter news, activities, and information that may not otherwise reach a wide audience.

Below are some examples of animal shelter websites that carry information on shelter programs and events and use graphics and attractive pictures that pull visitors into the site. Exemplary websites use less text, particularly on the home page. These sites make more use of graphics, colorful pictures and short video clips. They use links that permit viewers to navigate elsewhere on the site for detailed information.

- The **Tri-City Animal Shelter** website prominently features its state-of-the-art facility. Creative words are used to describe the facility, shelter events and services. The website repeats reference to the quality of its facility and uses pictures of work spaces in various parts of the facility to leave the impression that animal care and welfare is

Austin Animal Center links-to-content and draws out important website information.

Source: City of Austin Animal Services

of highest quality. For more information, http://www.cedarhilltxgov.org/index.aspx?NID=66

- The **Prairie Paws Adoption Center** in Grand Prairie, TX also has an interesting website. Attractive colors and pictures are evident everywhere, and the site is easy to navigate. For more information see *Appendix 1* or, http://www.gptx.org/index.aspx?page=66

- The City of **Austin Animal Center** website has good face quality, and its links-to-content are exemplary. Use is made of colorful pictures, logo and graphics, short video clips of adoptable animals, minimal text and content on the front page, generous links leading to more content and more pages. Austin's website is visually attractive with appealing content. For more information see *Appendix 1* or, http://www.ci.austin.tx.us/health/pets/

- Organizations such as the **Humane Society of Boulder Valley**, **San Francisco SPCA**, and the **Seattle Animal Shelter** do an excellent job of organizing data on their home pages to display only the most relevant shelter activities. For more information, http://www.boulderhumane.org/hsbv/index.asp; http://www.seattle.gov/animalshelter/Default.asp; http://www.sfspca.org/

AAS involves the local community through events such as the Summer Youth Employment Program and the Youth Pet Grooming Academy...

Source: City of Arlington Animal Services

Community Involvement and Educational Programs

AAS invites the local community to participate in animal shelter events. An example is the annual *Animal Essay Contest* where school-age children participate in writing essays. The top three essays from participants at grade levels 1-5 are awarded prizes for their participation.

Another example is an AAS program that is part of is Arlington's *Summer Youth Employment Program*. The Community Services Department at the City of Arlington works in partnership with youth to help build safe, attractive and engaged neighborhoods. The *Summer Youth Employment Program* was designed to strengthen partnerships with young citizens in the community by providing learning experiences and meaningful career opportunities. Some of the activities for youth include learning how to handle cats, learning about responsibility, having fun working on the computer and learning about the City of Arlington.

AAS also involves and educates youth on pet and other issues through two other programs, the *Youth Pet Grooming Academy* and the new *Home School Program*. *Youth Pet Grooming Academy* is $10 per child with the money going toward the municipal general fund. The program has two sessions and is a partnership with **Dog Scouts of America**. In the first session, kids learn how to groom pets in the class including what tools you need, how to clip nails, and what to wear and why you should wear it when

*Other Animal Welfare Groups
Involve the Community Through…*

- *National events such as the AVMA's National Pet of the Week Poster*
- *Year round day camps and summer camps opportunities*
- *Focus on including a large cross-section of the youth population*
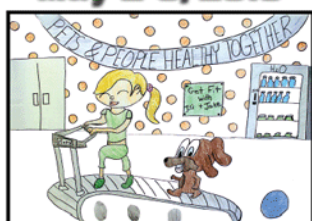
Source: National Pet Week www.petweek.org

grooming. The *Home School Program* is in its first year and it has successfully reached out to home school kids to teach them about the importance of animal services and other city department's roles are in helping pets.

Below are programs by animal care organizations in the areas of community involvement, education and promotion.

- The **American Veterinary Medical Association (AVMA)** in partnership with *Auxiliary to the American Veterinary Medical Association* involves the community by calling for posters to be displayed at a National Pet Week event. Each year, the *Auxiliary to the American Veterinary Medical Association* holds a contest to select the official poster for National Pet Week. The winning poster is posted on the association's web site throughout the week of the event. Citizens of all ages are invited to participate in the contest, and a cash reward of $300 is given to the winner. For more information,

  http://www.petweek.org/index.cfm; http://www.avmaaux.org/;
  http://www.avma.org/animal_health/default.asp

- Additional ways to include youth in animal education are offered by th**e Humane Society of Boulder Valley (HSBV)**. This organization has year-round daytime and summer camp opportunities for area youth with the purpose teaching responsible pet guardianship using hands-

on and experiential learning activities. These programs are paid for by participants, donations, and sponsorship of youth. They include scouting programs, the Teen Animal Ambassador Club (Ages 12-14), Furry Fuzzy Story Time (Ages 1-5), Camp Muddy Paws Summer Day Camp, and other year-round day camps. What makes HSBV's activities stand out is their focus on education at an early age about humane animal practices and the use of creative funding mechanisms such as sponsorship and donations to involve a large cross-section of the youth population. For more information,

http://www.boulderhumane.org/hsbv/go.asp?mode=humeed

Older pets are among the hardest to adopt even though they may be as healthy as young kittens and puppies.

Older Pet Adoption Events

AAS is currently involved in adoption events such as Adopt-a-Thon at the Rangers Ballpark in Arlington. This event does an excellent job of bringing attention to healthy pets that need homes and increasing adoption outreach. Typically, when pet owners look at adopting a pet, most of the attention goes to the younger pets, which can be a problem for a shelter.

- **Dumb Friends League** in Denver, Colorado does an excellent job of bringing attention to older pets by incentivizing older pet adoptions. The June adoption program is meant to help more pets find home. The League offers a $50 off coupon for cats and dogs one year of age or older. The Days of Summer program offers free adoption during the summer months for cats six years or older. The Purrs for Pops program is a 50% discount program for the adoption of cats that are one year of age or older provided a youth brings dad along. Empty Nest is an adoption program for cats one year of age or older at half the regular price during the month of August each year when kids are headed back to school. Finally the 100 Cents program is a celebration of the shelter's 100 year anniversary by offering the adoption of any cat one year of age or older at half-off the regular price.

Dumb Friends League of Denver uses their calendar to promote a pet photo contest at $35 per entry.

Source: City of Arlington Animal Services

Pet Calendars

The *Arlington Loves Pet Calendar* is produced annually by the **Arlington Animal Services Advisory Board** with the help of volunteers. The calendar, which is priced at $10, does a great job of fundraising and brings general awareness of the shelter through its sales.

- **Dumb Friends League (DFL)** in Denver also publishes a calendar, but its calendar is used to promote DFL's pet photo contest. The entry fee is $35 per photo and includes mailing a full-color calendar to each purchaser. Photos of cats, dogs, other small mammals and birds are eligible, and all applicants have an equal chance of their pet being featured as the "pet of the month." This format is effective for involving a large number of people and giving them a feeling of connection with shelter programs. The shelter allows people to pay the entry fee and sign-up for the contest online or by mail. For more information, https://secure2.convio.net/ddfl/site/Donation2?df_id=3400&3400.donation=form1

Pet Alert Sticker Program

Currently, AAS uses a pet alert sticker program as a fund raising tool for the shelter. Decals can be purchased at the Arlington Animal Services Shelter at $5 for a package of two. Proceeds benefit the purchase of new diagnostic medical equipment for animals.

- **Oakland Park Fire-Rescue** uses the program not only to aid firefighters in identifying the number and species of pets inside houses during an emergency. But, firefighters keep the alert stickers in their vehicles for distribution, and stickers can be picked up at any fire station in Oakland Park. It is estimated that approximately 700 stickers have been given out since the program was launched in July 2007. This variation would be an opportunity for AAS to collaborate more with the Arlington Fire Department and build greater awareness. For more information,

  http://www.aspca.org/pet-care/disaster-preparedness/

  http://www.petalertdecal.com/home.htm

Source: ASPCA, Pet Safety Alert, Inc.

Pets are Welcome Program

The *For Your Pet* information is a great service provided by AAS. Information on caring for pets, disaster preparedness, and monitoring pet behavior is invaluable for any pet owner. However, one topic AAS might consider is how to live and travel with pets. Moving and traveling with pets can be difficult for any pet owner, and for property managers, finding responsible tenants with pets also can be a challenge.

- The **Dumb Friends League's** *Pets Are Welcome (PAW)* Program offers invaluable information for tenants, travelers, and property owners on how to live with pets. This information includes finding pet friendly rentals and hotels in the area, checking out pet policies, how to move with a pet, and how property owners can go through the process of establishing a pet-friendly environment. Arlington has numerous apartments and hotels that could benefit from guidelines on how to live with pets to ease the tension between landlords and renters.

Additional Resources

To learn more, check out these guides to **living and traveling with your pet.**

"Renting with Pets"
www.humanesociety.org/animals/pets/

"Relocating Information"
http://www.aimrelocation.com

"Pet-friendly Hotels"
www.pet-friendly-hotels.net

"Pet-friendly homes and apartments"
www.peoplewithpets.com

Dumb Friends League Information
www.ddfl.org/paw.htm#rental

AAS could help inform and educate its Spanish-speaking population through a basic webpage focused on issues such as spay and neutering, adoptions, and euthanasia.

Español

- "Si tiene más preguntas…" **Dumb Friends League** of Denver has set up a webpage in Spanish to communicate salient information about its shelter including who to call or email with questions or issues. AAS could help inform and educate its Spanish-speaking population through a basic web page focused on issues such as spay and neutering, adoptions, and euthanasia. For more information, http://www.ddfl.org/Spanish.htm

Pet License Promotion

- The new **Burien Animal Care and Control** in the City of Burien, Washington provides free pet licenses during the month of July each year. Senior citizens can obtain permanent (lifetime) licenses for their altered pet for a one-time charge of $15. For more information, http://www.burienwa.gov/index.aspx?NID=884

Additional Resources

To learn more, check out these guides to **search engine optimization**.

"Beginner's Guide to SEO"
guide.seomoz.org/article/beginners-1-page

"Search Engine Optimization"
en.wikipedia.org/wiki/Search_engine_optimization

Webmaster Help Center
http://www.google.com/support/webmasters

Animal Sheltering Story
www.animalsheltering.org/resource_library/magazine_articles/sep_oct_2007/find_your_target_audience.pdf

Using Search Engines to Increase Adoptions

AAS currently links to other helpful organizations such as *ASPCA* and homeagain.com, and maintains a presence on petfinder.com. One way for AAS to boost adoptions is to increase its web presence through linking to other local groups and using key words to distinguish its organization for web searches.

- Danielle Hamilton, writing for animalsheltering.org, suggests that organizations can boost adoptions by setting themselves apart from other internet search results that may take people to Freecycle, Craigslist or the newspaper classifieds. By focusing on specific keywords related to the organization, users interested in rescue and welfare operations will find AAS before finding the puppy mills.

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RAISING MONEY

Practices that offer alternative ways of raising money and donations: Raising money and establishing funding contains organizational benchmarks that excel in creating avenues for patrons to donate, finding or creating funding sources. Currently, Arlington animal services (AAS) engages in activities that create additional money and funding for shelter activities. However, the vignettes below illustrate new ways AAS may balance or supplement its budget.

Friends of ….. Animal Shelter

The Friends of Arlington Animal Shelter raises money and brings awareness to AAS activities. However, there is little information online about the activities of this organization. Below is an example of an animal shelter that creates awareness about the shelter activities through the use of its website.

- The **Tri-City Animal Shelter and Adoption Center** has a non-profit partner, *Friends of Tri-City Animal Shelter.* The Friends organization has an active calendar with year round events that are publicized on its own website. Memberships and fundraising efforts support pet education for

"Our organization is actively involved in all sorts of shelter activities and helps the Tri-City Animal Shelter meet some of its pets' short term and long term needs by providing food and monetary contributions on a regular basis."

Stacey Copeland, Board Member, Friends of Tri-City Animal Shelter

citizens of Cedar Hill, DeSoto and Duncanville, assist with the (off-site) adoption process, supplement the needs of the shelter, and provide monetary support for animal health and the adoption process. The Friends group brings attention to fundraising events. One of these is a fall gala that raises money for major shelter projects intended to enrich the lives of the animals and provide financial support for shelter employees. The Friends organization on occasion provides food for pets at the shelter and is in other ways actively involved in shelter activities. The Friends website is used to show the full range of Friends contributions to the shelter and has a link to the Tri-City website. For more information, http://www.friendsoftri-cityanimalshelter.org/

The Friends of (Tri-City) website is used to show contributions, bring attention to events, and raise money for the shelter.

Grant & Service Support

The AAS staff and the Friends of AAS are alert for new sources of funding and services to support animal welfare activities. One example is its partnership with **Respect A Bull**, a program dedicated to rescuing, rehabilitating and re-homing Pit Bulls. Through this partnership AAS hosts the *Fix a Bull* event where the first 50 pit bulls to show up are spayed or neutered for free, vaccinated for free, get a free microchip, and licensing. Additionally, pet owners must attend one pit-bull class session.

Additional Resources

To learn more, check out these guides to **grants.**

The Grants Program Management Office of the Federal Government
www.grants.gov

"Comprehensive list of grants available to non-profits"
www.foundationcenter.org

"Grants specific to animal welfare and service groups"
http://grants.library.wisc.edu/organizations/animals.html

"Potential animal group funders"
http://fundsnetservices.com/animals.htm

"How to write a successful grant"
mcf.org/mcf/grant/writing.htm

"Checklist of items needed in almost any grant"
http://www.iusb.edu/~sbres/workshop/ProposalCheck.html

- The City of **Fort Worth Animal Services** department also conducts free spay-neuter surgeries for pit bulls through a grant offered by PetSmart charities. In addition to surgery, services provided include rabies vaccination, licensing and microchip. However, citizens have to meet certain conditions in order to qualify for these forms of free assistance. The animal must be pit-bull canine and the owner must be a recipient of verifiable government assistance, e.g., welfare, unemployment, disability, food stamps, WIC, etc. Online registration is available for this service.

- The **City of Fort Worth Animal Services** department has an interesting financial support arrangement with Joe's Crabshack, a local restaurant. Eat at Joe's Crabshack on the first Thursday of any month and 10% of your food bill is donated to *CLASP (Cowtown Loves Animals Shelter Pets)*. CLASP is a volunteer-run program that works with and donates money to the animal shelter. For more information,

  http://www.respectabull.com/

Seattle Animal Shelter streamlines donations by allowing patrons to donate to various funds with credit cards via the shelter website.

Source: City of Seattle Animal Shelter

Simplified Online Donation Process

Currently, the AAS posts a donation form on the website in PDF format. The form can be filled out and mailed with a payment to the Animal Services Center. Patrons may designate how they want their donations to be applied, e.g., pet food, a memorial brick, or in memory of a loved one.

- Many of the nationally, benchmarked organizations such as City of **Seattle Animal Shelter, Multnomah County**, **Dumb Friends League**, and **Humane Society of Boulder Valley** have streamlined and simplified the donation process by allowing their patrons to pay online. These organizations are taking advantage of a process that was adopted years ago by retailers to eliminate print and mail expense and speed up the payment process. In addition, they offer donation options such as pledging reoccurring gifts to the shelter, donating surplus cars and sponsoring a cat or dog at the shelter. For more information,

  https://secure2.convio.net/ddfl/site/Donation2?df_id=1160&1160.donation=form1

  http://egov1.seattle.gov/AnimalShelter/ASDonation/DonationEntry.asp

  http://www.co.multnomah.or.us/dbcs/pets/donate.shtml

  http://www.boulderhumane.org/hsbv/go.asp?mode=donate

Endowments and Giving Clubs

An endowment is a source of money made available to an organization by a benefactor who asks that the principal remain intact with only the income being used to support specified or non-specified activities of the organization. Organizations like AAS are eligible to receive endowments and can benefit immeasurably as endowment recipients. Grant programs like the *Arlington Tomorrow Foundation* that donates to local programs like AAS and community giving clubs, are places to start looking for this funding.

- The **Dumb Friends League** (DFL) in Denver, Colorado HOPE is the recipient of an endowment to which donations can be made by shelter patrons and benefactors. The endowment called the *Helping Our Pets Endowment Fund (HOPE)* provides an endless source of support for the shelter. Gifts made to the endowment are pooled to earn annual interest and investment income. The income can be spent for current needs while the principal remains untouched. To support endowment giving and other donations, DFL has established donation levels from $350 up to $2,500. Each level brings with it a different level of patron recognition and benefit. Other forms of donation include the "Promise wall," "Tribute bricks," "Memorial Garden," and the "Buddy Wall." For more information, http://www.ddfl.org/friendship.htm#hope; http://www.ddfl.org/remember.htm#gift

Endowments provide...

- *A continual and dependable source of additional funding*

- *Benefactors the guarantee of how their money will be used*

- *Ongoing recognition to the organization and contributors*

Shelter Gift & Thrift Shop

Some shelters use thrift and gift stores as opportunities to get volunteers and citizens involved and make them aware of animal welfare activities.

- Two organizations, **Dumb Friends League** (DFL) and **Humane Society of Boulder (HSBV)** use gift shops to raise money for their operations. DFL, in conjunction with the Humane Society of Denver, uses an online gift shop that sells promotional items such as dishes, mugs, bumper stickers, and shirts.

- HSBV has two brick and mortar stores. One HSBV store is a thrift and gift shop that accepts donations such as furniture, books and antiques, and these are resold to raise money. The *Thrift & Gift Shop* is staffed primarily by dedicated volunteers. The money resulting from sales is used to pay for shelter programs. The other store located in the lobby of HSBV sells fun and unique items for dogs and cats at retail prices. For more information,

  http://www.boulderhumane.org/hsbv/go.asp?mode=sonnyside;

  http://www.boulderhumane.org/hsbv/go.asp?mode=thrift;

  http://www.cafepress.com/dfl_shop

Thrift and gift stores are opportunities to raise money and involve volunteers in the shelter.

Source: Humane Society of Boulder Valley

SERVICES FOR VOLUNTEERS

"Our volunteer and foster care programs have enabled us to double our adoption rate without expanding the shelter."

Don Jordan, Director, Seattle Animal Shelter

Practices that allow new ways to make better use of volunteers and support the AAS mission: This section contains organizational benchmarks that excel in making more efficient and effective use of volunteers and that involve pet owners in their operations. Currently, Arlington Animal Services has over 400 volunteers. However, the vignettes below illustrate new ways AAS may organize and use their services.

Volunteer Coordination

Committed and well trained volunteers can perform many shelter tasks thereby reducing operating expense and releasing paid staff to do what their experience and training has prepared them to do. Currently, AAS staff share the responsibility of coordinating volunteer activities in the absence of a volunteer manager assigned exclusively to AAS.

- Owing to the service of a full-time volunteer coordinator, the City of **San Antonio Animal Care Services (ACS)** department enjoys a well-structured and managed volunteer program. The coordinator is

responsible for maintaining an online volunteer handbook that stipulates what is expected of a volunteer, shelter operations and regulations, dress code, etc., The coordinator is responsible for the conduct of four volunteer orientation classes each month. The coordinator has been instrumental in raising money for volunteer activities and supplies by the design, production and sale of t-shirts to volunteers and others. The price is $10 for one shirt and $15 for two. The San Antonio ACS has about 50 regular volunteers and additional volunteers that can be called in for special events and projects. In the month of May 2010, ACS volunteers contributed over 1200 work hours, which is equivalent to seven full time employee hours. For more information, http://www.sanantonio.gov/animalcare/GetInvolved.asp

Partnerships to Involve Pet Owners and Volunteers

AAS involves volunteers in their day-to-day operations and has formed partnerships with other organizations. One example is the partnership of AAS with The University of Texas at Arlington to host a donation drive benefiting shelter animals. UT Arlington students contribute time and energy on behalf of shelter animals after being trained about shelter services and responsible pet ownership.

A partnership with UTA allowed AAS to include new groups of volunteers.

- The City of **Sacramento Animal Care Services,** in collaboration with the **Sacramento County Public Law Library**, invites local pet owners to participate in what is called a series of pet-centric events. The Sacramento County Public Law Library hosts the event, *Come Together, Pet Lovers: A Legal Romp,* to benefit the city's animal shelter. The Legal Romp includes a series of classes on various topics such as emergency pet preparedness and estate planning for pets. A reception dubbed the "Yappy Hour" benefits the shelter as well. The Yappy Hour festivities included music, readings by local celebrities, book signings, an address by a nationally recognized author and animal adoptions sponsored by the City of Sacramento Animal Care Services. In addition, free emergency pet preparedness kits are given away to the first 100 participants at the Yappy Hour.

ORGANIZATIONAL PARTNERSHIPS THAT MAY PULL IN OTHER VOLUNTEERS

- *Schools & Colleges*
- *Libraries or museums*
- *Senior services or non-profits*
- *Sierra Club's or other outdoor groups*

▪ The Burien Senior Program Pet Grooming Project is a partnership between the **City of Burien Washington's Senior Program** and the **Veterinary Careers Program** at the Puget Sound Skills Center. For nearly two years, students from this program have commuted each month to the Burien Community Center to provide for the basic grooming services for the pets of senior citizens at no cost. The services provided consist of nail trims, shaving, teeth brushing, and ear cleanings on both cats and dogs. Such dedicated service benefits both the students who provide the service and senior citizens, many of whom are on fixed incomes and might not be able to afford such services in the retail marketplace. The program, just beginning its third year, is immensely popular with students and the senior citizens who benefit from the service.

SHELTER VOLUNTEER TYPOLOGY

- *Core Volunteers: The shelter's go to, trained people who commit to the shelter every week for a period of time.*

- *Secondary Volunteers: Casual volunteers who support core volunteers and staff.*

Core & Secondary Volunteers

AAS has an extensive volunteer training program. Currently, the City has over 400 volunteers who go through training based on ASPCA standards on an as-needed basis. Like most animal welfare organizations, AAS has a group of core volunteers and secondary volunteers. Core volunteers are known as "go-to" people. They spend time at the shelter every week and may have worked there for years. Secondary volunteers, while they provide invaluable support, cannot commit the same amount of time as the core group. One issue with secondary volunteers is spending time and money training people who cannot commit the time needed to repay the expense.

- Several of the benchmarked organizations such as the City of **Fort Wayne Animal Care and Control**, **Dumb Friends League**, and **Humane Society of Boulder Valley** deal with this issue by establishing commitments core volunteers must agree to. These vary from one year to six months and one to three hours per week. Secondary volunteers are given opportunities to help with other activities that do not require much training such as working in the gift shop or on organized donation drives. The benefit of this policy for AAS is better use of volunteer and staff time and of budget funding.

For more information, http://www.cityoffortwayne.org/volunteer.html;
http://www.ddfl.org/volinfo.htm;
http://www.boulderhumane.org/hsbv/go.asp?mode=volunteer

Pet Advocacy

- The State of Colorado has established a pet overpopulation fund dedicated to pet sterilization. This fund has been used by the state to reduce euthanasia rates and increase pet education. **Dumb Friends League** gets volunteers involved in this initiative for the promotion of pet-friendly legislation by registering them for e-mail updates when important bills are filed. Volunteers are encouraged to write their representatives about bills awaiting legislative action. For more information,

  http://support.ddfl.org/site/PageServer?pagename=TA_Take_Action

Volunteer Opportunity Listing

AAS dedicates a page on its website to volunteer opportunities. The web page contains a sign-up form, stories of volunteers and upcoming events for volunteers.

- **Multnomah County Animal Services** posts specific volunteer opportunities on its web page. Much like advertising a job, the volunteer listing describes specific shelter needs to acquaint

Advocacy from DFL volunteers has helped secure money for the State of Colorado's Pet Overpopulation Fund

Source: Dumb Friends League

prospective volunteers with the work to be done before they actually volunteer. For more information,

https://ec.volunteernow.com/recruiter/index.php?class=OppSearch&recruiterID=1227&act=search_all

Volunteer Videos

Volunteer videos on public access is a creative way to involve and celebrate your volunteers

Source: You Tube, Multnomah County Animal Services

- **Multnomah County Animal Services** also has numerous outlets for volunteer involvement including its Animal Magnetism cable television programming. Partnering with Metro East Community Media (Public Access), the shelter enables volunteers to post "campy, fun" videos of their pets on television and You Tube. Volunteers are involved in sending in segment ideas or videos of their pets being silly. For more information,

  http://www2.co.multnomah.or.us/aspnet/ytpets/AnimalMag.aspx

Volunteers Used to Supplement City Animal and Park Services

- Since 2007, the **Mountlake Terrace Off Leash Dog Group (MLT D.O.G.)** in Washington State has worked diligently to turn its dream of an off-leash dog park into reality. Volunteer workers were often seen after work and on weekends preparing the site for public use. The volunteers worked diligently removing brush, debris or spreading bark and creating pathways throughout the site. In addition, to the volunteers, an Eagle

This handout from HSUS may help potential foster parents know if they are ready for a pet.

Source: Humane Society of the United States

Scout candidate provided his services by constructing a storage shed, installing waste dispensers, signs, kiosks and benches. Fencing and gates were installed by a private contractor. The final cost for this project was within the original budget, and the Off Leash Dog Park opened on March 16, 2009. The park is open from dawn to dusk and has become a popular amenity within the city's park and recreation program. For more information, http://www.mltdog.org/

"Becoming a Better Foster Care Parent" (Volunteer)

The foster care program at AAS is designed to "improve the survivability and adoptability of 'special needs' pets, decrease euthanasia and increase placement of animals into loving, responsible and permanent homes." Toward this goal AAS provides volunteers with orientation and information to prepare potential "parents" for this responsibility.

- To help AAS and other shelters, the **Humane Society of the United States** (HSUS) offers literature on foster care fundamentals, how to become a successful parent, and how to know if you are ready to be a parent. This sort of information may help AAS efforts to place pets in homes that are ready. For more information, http://www.animalsheltering.org/resource_library/search_results.html?librarytopic=foster_care_programs

COST SAVINGS & OPERATING EFFICIENCIES

> *"Vets come and go, but we have a core of vets who have been with us for as long as I have been with the organization (10 years)."*
>
> *Karen Hickman*
> *Business Manager, Save A Life, Inc.*

Practices that improve animal service effectiveness and efficiency to allow staff by allowing their time on animal welfare issues: Effective and efficient operations examines how AAS can trim the budget, without sacrificing the level of service. AAS has streamlined some services, created partnerships, and used volunteers. However, the vignettes below illustrate new ways AAS may improve operations.

Importance of Partnerships and Cost Savings

AAS strives to provide efficient and effective services to its citizens, for instance, working to educate youth in responsible pet ownership. The organizations below have come up with creative ways of using partnerships to save shelter costs.

OTHER TIPS TO SAVE THE BOTTOM LINE

- *Ask vendors or suppliers for deals or discounts*
- *Consider non-traditional supplier sources such as hotels or motels that throw out towels and bedding*
- *Ask local retailers if they will donate damaged stock such as bleach or detergent*

- To save money, **Montgomery County Animal Rescue Center** in Dayton, Ohio partners with other area shelters to joint-purchase sutures for spay and neuter surgeries. Because of this effort, a total savings of $8,000 has been achieved.
- **Oakland Animal Services** uses its nonprofit support from the Friends of the Oakland Animal Shelter to buy microchips, medical equipment, pet beds, and new flooring not in the shelter's budget.

Using Committees

With the upcoming strategic planning retreat, AAS will be looking for ways to save money and resources. Typically, the outcome of a strategic plan a committee or committees may be formed to investigate the best way to achieve the organization's priorities.

- The **Loudoun County Animal Care and Control** in Waterford, VA formed a committee to look for strategies to save money on shelter operations. The results of the committee investigation turned up that implementation of simple policies such as turning off lights and computers not in use, not wasting food when feeding animals, reusing and recycling items, and developing creative adoption promotions to placed animals in good homes quicker has allowed the shelter to cut its budget without cutting service.

The Kansas Humane Society recycling program raised more than $62,000 in 2007 with twenty recycling bins around Wichita.

Source: Kansas Humane Society, Humane Society of the United States

"Going Green on the Cheap"

The new AAS shelter is undoubtedly more energy efficient than the previous shelter; however, there's always room to improve efficiencies. Below are a few green ideas that have been implemented by other shelters.

- **Energy Star compact fluorescent light bulbs**. They use 75 percent less energy than standard incandescent bulbs and last up to 10 times longer.
- **HVAC filters.** Changing them every month can maintain clean air and improve the efficiency of heating and cooling.
- **Recycling program**. Recycling paper, glass, aluminum, and plastic can be good for the environment and the shelter's pocket book.
- **Shades on windows.** Shades can lower cooling costs during hot Texas summers.
- **Simple weather stripping.** Placing this around doors can prevent energy from escaping.

Free Spay and Neuter Partnership

AAS currently offers spay and neuter services and for a very reasonable fee, and has partnered to lower these costs with other organizations, but what other programs may exist that could help?

San Antonio's partnerships with the City and local non-profits have allowed them to offer free and low-cost spay-neuter services and education.

- The City of **San Antonio Animal Care Services (ACS)** has a partnership with South Park Community Link Service to offer free spay and neuter services to citizens. This service is on-going, year round, and it is funded through the city general fund and grant money. The goal of the service is to educate citizens on the need for spaying and neutering animals. ACS offers online pet registration to make the process easier for citizens. In addition, ACS has a partnership with SpaySA, a non-profit organization that provides low-cost spay-neuter services, vaccines, and education on responsible pet ownership. Furthermore, ACS has an *Ask-the-Vet* program, a free consultation for citizens to post questions about their pets on a web page and receive an answer from a licensed veterinarian.

Partners in Adoption

AAS currently partners with local shelter and rescue organizations to get pets adopted and placed in loving homes. Many of the benchmarked organizations use similar partnerships.

- The **Humane Society of Boulder Valley** is a member of the Pet Smart Rescue Waggin'® Program. By participating in the program, the society can increase the number of healthy pets that get adopted by taking them where a need for pet adoption may arise.

- To increase its adoption visibility, **Dumb Friends League (DFL)** established partnerships with local businesses to have temporary off-site locations. Throughout the year the DFL Pet Care-avan will visit festivals, markets, and events to get pets in healthy, happy homes. For more information,

  http://www.petsmartcharities.org/agencies/rescuewaggin.php;

  http://www.ddfl.org/offsite.htm;

  http://www.boulderhumane.org/hsbv/go.asp?mode=Pet_Partners

Fort Worth's "Pets Are Worth It" program focuses on education and enforcement to increase the number of responsible pet owners and lower long-term code compliance costs.

Source: Fort Worth Animal Care and Control

Partnerships for Pet Owner Education and Awareness

To help with its education mission, AAS partners with the **Texas Coalition for Animal Protection (TCAP)**. TCAP is a nonprofit that serves to increase public awareness and understanding of issues affecting animal welfare. One specific program is *Low Cost Pet Sterilization* that offers discounted sterilization and vaccination services the second Friday of each month at AAS.

- The **City of Fort Worth, TX** is developing a program named *PAW – Pets Are Worth it*, an education program that emphasizes the need for and benefits of responsible pet ownership. The city partners with area animal welfare organizations and the Fort Worth Community Relation department's Neighborhood Education Office to provide an education outreach program targeting school-age children. The program's focus is education and enforcement including why it is important to license pets, the need for vaccinations and proper medical treatment, advantages of having pets altered and how to safely and humanely protect pets with adequate enclosures and shelter. For more information, http://www.fortworthgov.org/animals/paw/

Online pet licensing and renewals on the shelter's website could save staff time and increase license compliance numbers.

Source: Seattle Animal Shelter

Online Pet License Renewal Payment

Posting the cost of pet licenses online is a convenience for pet owners and avoids the unnecessary time for the AAS staff to answer individual questions on the telephone. Currently, AAS partners with **Pet Data, Inc.** to provide online licensing help through the agency's website.

- **Multnomah County Animal Services** and the **Seattle Animal Shelter** take this a step further by allowing pet owners to renew and register online. Additionally, the Seattle shelter offers listings of vet locations throughout the city where licenses can be purchased. For more information, http://www.co.multnomah.or.us/dbcs/pets/license.shtml; http://www.seattle.gov/animalshelter/licenses.htm; http://www.petdata.com/cs/arl/

Flexible Payment Plans

- Paying to restore or maintain a pet's health can be financially burdensome when the full cost has to be paid in a lump sum. The **Humane Society of Boulder Valley** helps customers manage these costs through the use of *CareCredit*. *CareCredit* is not a program of HSBV, but is an online credit program that offers convenient options to consumers paying with credit cards, cash or checks. *CareCredit* allows a pet owner to pay for the treatment services in installments instead of a lump sum

The benefits of a feral cat trap & release program include...

- *Casting new light on animals that were once ignored*

- *Preventing removed & euthanized cat colonies from being replaced by new feral cats*

- *Keeping feral cat populations down, saving shelter resources*

- *Providing an alternative to placing feral cats in shelters to be euthanized*

and without incurring interest charges. For more information, http://www.boulderhumane.org/hsbv/go.asp?mode=clinic; www.carecredit.com/

Feral Cat Reduction Program

For citizens to catch feral and stray cats, AAS offers traps that can be picked up for a $50 deposit. The benefit of having these traps is to reduce the cat population in the city. However, feral cats are still a burden on AAS staff, and citizens may not be willing to catch these cats if they believe they will be euthanized.

- The **Humane Society of Boulder Valley** offers a Trap-Neuter-Release program package. This program allows citizens to catch feral cats that will be fixed and then released. For a $45 fee, the shelter will perform a spay or neuter surgery. Feral cats must be inside their traps when they are brought to the clinic for surgery. In addition to the sterilization surgery, one ear is tipped (notched horizontally) while the animal is under anesthesia. The ears are tipped to help easily identify the animal as a feral cat at a distance, limits the re-catching of cats. For more information, http://www.boulderhumane.org/hsbv/go.asp?mode=sn_info http://www.animalsheltering.org/resource_library/magazine_articles/mar_apr_2005/feral_cats.pdf

Strategic planning for Multnomah County has helped to set priorities, organize the budget, and focus on the shelter's vision.

City of Portland
and Multnomah County

Animal Services
Taskforce

RECOMMENDATIONS
FOR ANIMAL SERVICES

FINAL REPORT – Recommendations

November 2008

Source: Multnomah County Animal Services

Strategic Planning and Focus Groups

Arlington Animal Services, like numerous other animal welfare organizations, is facing budget cutbacks. **Multnomah County** used strategic planning to address budget issues.

- **Multnomah County Animal Services** has been more proactive in cutting its budget. Through the use of strategic planning and focus groups, concentrating on animals that can be saved, and conducting behavior assessments on incoming animals, the organization has found ways to balance the budget without cutting service. For example, one issue was the low compliance and loss of funding from pet owners not paying for pet licenses. To solve this problem, the shelter re-branded the license program as a pet registration program that would add value to participants. Additionally, the shelter added the *free ride home* program similar to the AAS program. Pet owners who comply receive benefits such a free ride home for lost pets or discounts on other fees. For more information, http://www.co.multnomah.or.us/dbcs/pets/Portland/Final%20Report%20-%20Recommendations.pdf

Spay and Neuter Voucher Program

AAS has used a voucher program in the past, but it was not used by many of the customers. The program below is an example of a program that was successful and recognized for its spay and neuter voucher program.

Save a Life, Inc. partners with PetSmart to sell its low-cost spay/neuter voucher.

- **Save-A-Life, Inc. (Savannah, GA)** is a private shelter that primarily rescues animals from the Chatham County Animal Control shelter. It also operates an impressive and effective low cost spay/neuter voucher program called Save-A-Life, Inc. The organization offers discount vouchers to the public to promote spaying and neutering. The vouchers are redeemable at a number of local participating veterinary clinics. In addition, Save-A-Life underwrites additional veterinary charges on the spay/neuter vouchers. Save-A-Life is a non-profit organization licensed by the state of Georgia as an animal welfare organization. The organization provides a free spay-neuter voucher with each unaltered pet it adopts. It also sells a spay/neuter voucher to any pet owner that can be used at any of their participating vet partners. The vouchers are not needs-based, but owners are asked not to purchase vouchers if they can afford local vet prices. Save-A-Life is an SPCA International Shelter-of-the-Week organization. For more information, http://www.savealifepets.org/; http://www.spcai.org/programs/shelter-of-the-week.html

HOW SUFFOLK (VA) HUMANE SOCIETY MANAGES ITS BUDGET

- *All funding comes from private donations*
- *Partnerships for low-cost spay-neuter*
- *Food donations from Suffolk Meals on Wheels*

Relying on Private Funding and Partnerships

- **Suffolk Humane Society (Suffolk, VA)** is the only humane society in Suffolk, the largest city in land area in the state of Virginia. Suffolk Humane Society is a non-profit organization that is funded entirely through private donations. It has no paid staff and is managed solely by dedicated volunteers. The society receives no government subsidies to support its efforts. Founded in 2007, Suffolk Humane Society has grown to over 200 members and volunteers who help with the society's many programs and events as well as volunteering with Suffolk Animal Control. In its first year of operation, Suffolk Humane Society boasted spaying and neutering over 900 dogs and cats, The society has greatly increased adoptions of animals at Suffolk Animal Control.

- **Suffolk Humane Society** has joined forces with the *Virginia Beach SPCA Neuter Scooter*. Through this partnership, Suffolk pet parents have access to low-cost spay and neuter surgeries, heartworm testing, FeLV/FIV testing, vaccinations, micro-chipping and registration, and heartworm and flea preventatives. The Neuter Scooter also welcomes feral cats who test negative for FeLV/FIV.

- **Suffolk Humane Society** also partners with *Suffolk Meals on Wheels*. Through this program, pet food is donated to Meals on Wheels recipients who need help caring for their pets. This past year, more than

850 pounds of pet food was delivered to residents for their pets. This important program helps keep pets with their loving families and out of the shelter. They also work with the *Chesapeake Square PetSmart* to feature adoptable cats and kittens in the store. In addition to these many programs and events, the Suffolk Humane Society regularly promotes featured pets-of-the-week in local newspapers. Suffolk Humane Society is an SPCA International Shelter-of-the-Week organization. It was featured on the SPCAI website and received a $1,000 grant.

Is AAS ready for a behavior program?

Some of the benchmarked organizations investigated used behavior programs. These ranged from pet training classes to behavioral therapy. The benefit of these behavior programs to AAS is better placement of pets and helping pet owners with behavior problems. However, if the shelter is not prepared, these programs can be costly in time and money to implement.

- **Humane Society University** offers a free 2-5 hour online course for an organization to assess its readiness to implement a behavior program. The course would allow AAS to look at this option without major investment of scarce funds. For more information, http://www.humanesocietyuniversity.org/coursesandprograms/professionalstudies/courseinfo/coursepage.html?sectionID=135 or to look at a

strong behavior program visit

http://www.arlboston.org/site/PageServer?pagename=behavior_PBC_ov
erview

Free Continuing Staff Education

Continuing education and assessment can help the staff cross-train for different jobs and analyze whether a new program can or should be added.

AAS is currently involved in providing free continuing education to staff through the **Texas Department of Health Service**. Another potential opportunity is listed below.

- The **Texas Veterinary Medical Association (TVMA)** offers free online courses to animal shelter employees and volunteers. One of these is a free online course on micro-chipping offered through the American Animal Hospital Association (AAHA) website. For more information, http://www.tvma.org/Media_Room/documents/MicrochippingFactSheet.pdf; http://www.arlingtontx.gov/animals/pdf/events_TCAP.pdf

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BENCHMARKING AS AN EXERCISE IN CREATIVE THINKING

Benchmarks are sometimes defined as best-in-class practices within a particular service area. A municipal program like Arlington Animal Services can benefit by regularly comparing the way it does business with relevant benchmarks. In so doing, program managers and stakeholders may see opportunities to take advantage of what has been learned elsewhere to make a good program like AAS function even better in the future. It is this potential of benchmarking to reveal opportunities and inspire creative adaptation that makes studies like these so valuable as preparation for an exercise in strategic

thinking and planning. It is with that in mind that this report has been prepared specifically for the consumption of advisory board and staff members of Arlington Animal Services in advance of its 2010 strategic planning retreat.

The collection of animal service programs and practices presented in this report is not exhaustive. Far from it. Without question, there are many other interesting and unique things being done out there that were not discovered by the study team during its investigations. On the other hand, there is much to ponder here. If, while thumbing through the pages of this report, you read something that causes you to exclaim: *"Wow! That's something we should talk about during the retreat,"* then the report has achieved the purpose intended for it.

We hope you have enjoyed reading this report and have been inspired by the many creative ideas that grace its pages. Strategic planning, if it is to be worthwhile at all, must be an exercise in creative thinking guided by a vision of success. The ultimate value of this report can be measured only by its usefulness to you and your colleagues as you think about and plan for the future of this fine organization.

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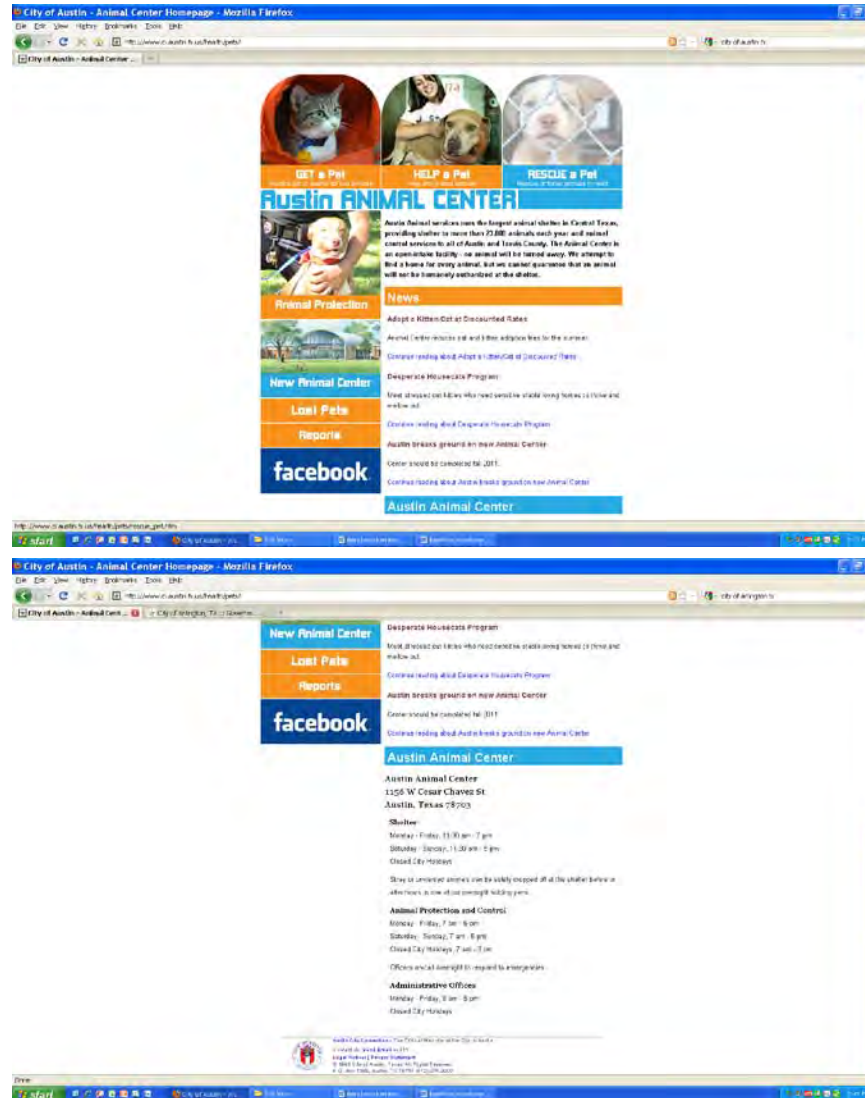http://www.animalsheltering.org/resource_library/magazine_articles/may_jun_1996/reproducible.pdf

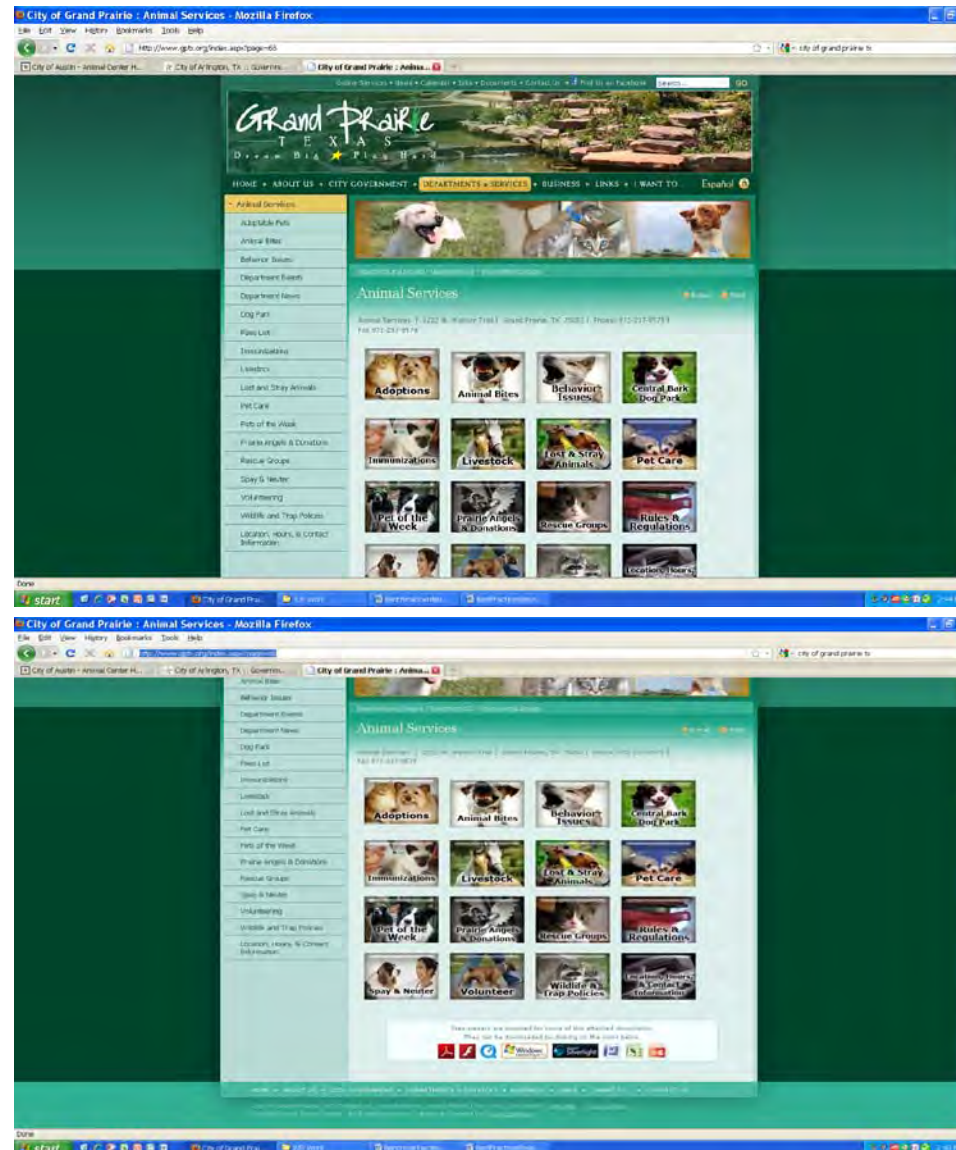**This Page Left Intentionally Blank.**

APPENDIX A:
WEBPAGE LAYOUTS

City of Arlington Animal Services website: http://www.arlingtontx.gov/animals/index.html

City of Austin Animal Center website: http://www.ci.austin.tx.us/health/pets/

City of Grand Prairie Animal Services website: http://www.gptx.org/index.aspx?page=66

Humane Society of Boulder Valley Social Media and Website: http://www.boulderhumane.org/hsbv/index.asp