Managed Intake and Capacity for Care: The Tools for Remarkable Population Management (Parts 1 & 2)

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The Association of Shelter Veterinarian's Guidelines for Standards of Care in Animal Shelters admonish:

"Every sheltering organization has a maximum capacity for care, and the population in their care must not exceed that level." On the surface, this seems like a simple and logical statement. Operating within an organization's ability to provide care is the foundation on which all other guidelines for care must rest. If the facility is insufficient to provide appropriate housing, if staff do not have time to keep animals clean and well fed, if the environment is barren of enrichment due to limited resources, inevitably some elements of animals' mental or physical well-being will be compromised.

However, what exactly are the required elements of care that define an organization's maximum capacity? And knowing these, how can an organization ensure that the number of animals in their care does not exceed this capacity, while still serving the community, meeting their mission, and saving as many lives as possible? These are critical questions. Fortunately the answers are not as complex or elusive as they might seem.

Defining capacity for care

The Five Freedoms of Animal Welfare, although developed by the Farm Animal Welfare Council for livestock in an agricultural context, provide a simple and compelling framework to define the minimum level of care expected for any animal in confinement. Few would argue that we should not provide these for every homeless pet in a shelter's care:

- 1. Freedom from Hunger and Thirst
- 2. Freedom from Discomfort
- 3. Freedom from Pain, Injury or Disease
- 4. Freedom from Fear and Distress
- 5. Freedom to Express Normal Behavior

Sometimes the barrier to meeting the Five Freedoms is obvious: if there is not enough money to purchase wholesome, appropriate food, then the very first freedom cannot be met. However, sometimes obstacles to meeting the freedoms can be more subtle. If cat housing is so small that litter routinely contaminates food and cats refuse to eat, freedom from hunger and thirst is not assured in spite of ample feeding. If a high quality disinfectant is available but staff simply do not have time to keep up with cleaning, reasonable protection from disease cannot be provided. Thus meeting each freedom requires elements of facility/housing and staffing as well as financial resources.

Numbers, capacity and the "sixth freedom"

Clearly, one solution to solving issues with capacity is to reduce the number of animals in the shelter's care at any one time. Most any organization has the ability to meet the Five Freedoms for one or a few animals. And yet, many shelters are overwhelmed with far more animals than they can comfortably care for. Why is this?

There is one freedom that is not listed in the five above, and this underlies the tendency for many shelters to find their capacity chronically overwhelmed. That is the freedom from euthanasia for animals that are neither suffering irremediably nor dangerous to the community. Because they were developed in the context of animals raised for food, it's not surprising that this is not addressed in the Five Freedoms. However, in a shelter context, it would be unthinkable to ensure the first five freedoms at the expense of the sixth. Providing for the health and well-being of animals cannot come at the expense of their very lives.

Fortunately, we now understand that far from being in conflict, the first five freedoms are synergistic with the sixth. Providing humane care, keeping animals healthy and comfortable, and allowing staff the time to do their jobs well, is not only good for animals, it also provides a more welcoming environment for volunteers, adopters and supporters. Healthy, happy animals move through the shelter to live outcomes more quickly, further reducing the number requiring care at any one time.

Ultimately, by keeping the number of animals within the shelter's limit for daily capacity, *flow-through capacity* can not only be maintained, but increased. More lives can be saved over time while costs for daily care are reduced. Most importantly, animals receive the care they deserve each day as well as receiving the very best chance at life we can possibly provide.

Bringing capacity for care into balance

A disparity between the available daily capacity for care (C4C) and the number of animals actually in the shelter's care, whether related to facility, staffing or finances, can be remedied in three ways: intake can be decreased, capacity can be expanded, or length of stay can be reduced.

Reduction in intake, while a worthwhile and attainable goal, should be realized through providing positive alternatives to shelter admission, keeping pets in their homes, and reducing the number of unwanted animals in the community. This requires an active

investment of shelter resources. Expanding physical and staffing capacity likewise requires additional investment, sometimes on an ongoing basis.

These investments are well worth it, especially where the alternative is operating chronically beyond capacity with all the attendant compromises to animal (and staff and volunteer) welfare. However, finding the resources to make such changes can be challenging when the shelter is already crowded beyond capacity for care. This quote from a shelter director will resonate with many in the sheltering profession:

"We, and the animals, were caught in a vicious cycle; the housing and crowding in our cat wards led to illness which led to more crowding and so on. The staff was spending so much time giving URI and ringworm treatments that we started to decrease the staffing for spay/neuter. The backup in spay/neuter only worsened the problem."

Fortunately, reducing length of stay provides a third route to bring C4C into balance with the number of cats cared for daily. Simple changes can reduce length of stay at little or no cost, and bring a host of benefits in addition to achieving daily C4C. Reducing length of stay without compromising live release requires a combination of appropriate housing and active management of each animal's pathway through the shelter.

Benefits of reducing length of stay

For many, it seems intuitive that giving every animal more time in the shelter would equate to providing the best chance for a live outcome. However, not only is this not necessarily the case, the opposite is often true.

Multiple studies have demonstrated that length of stay (LOS) is the single greatest risk factor for upper respiratory infection in shelter cats.[1, 2] At best, illness means a stint in treatment, a compromise to welfare (nobody likes to be sick), and a yet longer stay in the shelter. Longer stays in turn increase the risk for confinement-related stress and behavioral issues.

While the risks of prolonged LOS can be overcome with excellent housing and attentive enrichment, such care becomes ever harder to provide as the shelter becomes more crowded. One of the saddest sights in a shelter is that of an animal who has just given up.

Conversely, if a healthy animal can be admitted, examined, receive any needed care, and sent to a good home within a few days, everybody wins. The risk of illness and confinement related stress disorders is dramatically reduced. Time and space that would have been given to that animal can be reallocated to other animals in need of more extensive care. Resources conserved by preventing, rather than treating, illness can be better spent on programs to further the shelter's overall life-saving mission. Here's the rest of the quote from the shelter director referenced above, after implementing Capacity for Care:

"Within weeks we saw the results of getting within our Capacity for Care—illness dropped dramatically, the length of stay dropped, cats were healthier, we were able to increase our spay and neuter surgeries and cat adoptions increased by 25%. Just as important, our staff is happier, more engaged and proud of their life saving work. We still use and rely on C4C to help us keep length of stay low and lifesaving high."

For more on strategies to reduce length of stay, check out the article http://sheltermedicine.com/shelter-health-portal/informationsheets/length-of-stay. You can also delve into the details of Fast Tracking, a key program to reduce length of stay, by viewing this webinar brought to you by ASPCA Pro: http://www.aspcapro.org/webinar/2013-10-08/fast-tracking-save-lives Or, if you are more a reader than a viewer, check out this article on fast track from Animal Sheltering magazine:

http://www.animalsheltering.org/resources/magazine/nov-dec-2012/life-in-the-fast-lane.html.

Housing, length of stay, and capacity for care

Although there are many elements to providing Capacity for Care (C4C) and managing Length of Stay (LOS), housing plays a pivotal role. Single compartment housing and cages or condos with less than ~ 9 square feet of floor space have been linked to an increased risk of upper respiratory infection (URI) in shelter cats. Illness, in turn, means an even longer time in the shelter. Single sided kennels for dogs increases stress by not giving the dog the opportunity to urinate and defecate away from where they eat and sleep, a choice that the majority of dogs will make. [3]

Both single and group housing quality has also been closely tied to stress levels in confined cats.[4-9] As with the risk for URI in singly housed cats, size does matter. Specifically, floor space of less than 18 square feet per cat has been linked to higher stress levels in group housed cats. Most adopters prefer friendly, outgoing cats – behavior is the single most important factor when choosing a shelter cat (hyperlink to reference)[10] – so high stress levels can translate into longer stays to adoption as well as greater risk for illness. A vicious cycle can quickly ensue.

On the other hand, better housing can easily reverse this cycle by decreasing illness and stress, and therefore reducing length of stay. Reduced length of stay, in turn, makes great housing possible: healthy happy animals staying half the time can each be given twice the space. Cats with more space stay healthier and happier and the opposite of a vicious cycle takes hold.

Start with housing

Because of the tight relationship between housing, stress, illness and length of stay, it makes sense to start with housing when working towards Capacity for Care. Although there are many nuances to excellent housing (http://www.sheltermedicine.com/shelter-health-

portal/information-sheets/facility-design-and-animal-housing) for shelter animals, the floor space requirements for single and group housed cats are a great place to begin: at least ~ 9 square feet of space for singly housed cats, and at least 18 square feet of floor space for cats in group housing. Double compartment housing also greatly benefits both cat and dogs by keeping food, bed and litter separate and allowing cleaning and daily care with minimum disruption.

New cages or condos that meet both floor space and double compartment housing guidelines are available for purchase in a variety of materials. One of our favorite designs is compartments at least 30" inches wide in a 4 by 4 configuration with portals side to side as well as up and down. With this set-up, four compartments can be joined into one large unit for a single cat or bonded pair whose length of stay is expected to be a little longer, or during a mega-adoption event the compartments can be divided into four singles for the day, each housing a few kittens. Alternately, existing housing can be converted into this or other flexible configurations with the installation of portals (http://www.sheltermedicine.com/shelter-health-portal/information-sheets/cat-cage-modifications-making-double-compartment-cat-cages-).

Adequate out-of-kennel space, both indoors and out, is also critical to meeting the Five Freedoms. Dogs need both active and quiet time out of the kennel environment one-on-one with a friendly human. Additionally many dogs will benefit from play time with other dogs. Cats will also benefit from out-of-cage spaces for friendly interaction with a human and for time alone to explore, stretch, play and engage in the many behaviors that can't be expressed even in good single cage/condo housing.

Getting the numbers right: how much capacity is enough?

How do you know how much excellent housing, or what level of staffing, will be enough to serve the incoming population of animals? Put simply, the required Capacity for Care is equal to the daily average intake of animals, times the ideal length of stay. Minimizing length of stay through attentive population management and high quality housing is the most humane and effective way to achieve Capacity for Care.

Even when length of stay is at its most efficient, however, there will be a minimum number of animals that will need housing and care in order to accommodate daily intake. Length of stay should never be decreased so drastically that it impedes the ability to provide care or achieve live outcomes. If there is insufficient staffing or housing to safely hold even this minimum number, additional capacity needs to be developed.

There is also a maximum number of animals beyond which additional holding can actually be counterproductive, even if ample space and staffing exists. The number of animals in the shelter can, in itself, be the strongest driver of length of stay. This is most evident in adoptions. For a given rate of daily adoptions, more animals awaiting adoption will mean a longer average LOS to adoption.

For example, if 1 animal is adopted per day, and 10 are housed in adoption, the average LOS to adoption will be 10 days. If 20 more animals are added (for a total of 30), and average daily adoptions stay steady at 1 per day, the average LOS will automatically increase to 30 days. The simplest way to decrease LOS in this context is one time to adopt out more cats than are admitted. Once a new steady state is reached, it will be self-sustaining. Ideally, each shelter will maintain the number of animals for adoption at a self-sustaining level that maximizes adoptions while minimizing length of stay to adoption. When this number is exceeded, short term adoption specials or intake management can bring it back into balance.

It's not always necessary to delve deeply into capacity calculations to find the sweet spot between minimum and maximum. Some shelters have simply taken the plunge by improving housing and found the resultant decreased length of stay made up for any loss of physical holding capacity.

However, for shelters where the length of stay is already very short, shelters with special considerations (such as routine adoption mega-events or infrequent but substantial transport opportunities), or considering major investments in remodeling or building a new facility, it makes sense to dig deeper.

More detailed instructions on calculating the ideal number of animals awaiting adoption can be found at http://sheltermedicine.com/documents/adoption_driven_capacity_calculator. WAY more detail can be found at http://sheltermedicine.com/calculating_shelter_capacity. Or if you'd rather watch than read, or do a bit of both, you can find a webinar on calculating capacity at http://www.aspcapro.org/webinar/2013-11-20-/calculating-your-humane-capacity.

Managed intake

Managed intake refers to a thoughtful process whereby admission to an animal shelter is scheduled based on the shelter's capacity to provide humane care and assure the best and most appropriate outcome for each animal admitted. While it might be expected that managing intake would lead animals to be abandoned or suffer worse harm in the community than would be incurred by admission to a crowded shelter, in practice these fears have not been borne out.

On the contrary, managed intake has been linked to decreased intake, decreased crowding and costs, and in some cases dramatic reductions in euthanasia. Any animal that is not a hazard or subject to undue risk can be admitted as part of a managed intake program. Most commonly these programs target owner surrendered animals and un-owned cats. One shelter director's rationale for a managed intake program for cats can be found at: http://www.maddiesfund.org/Maddies_Institute/Articles/Cats_by_Appointment_Only.html.

An average wait time of 5-7 days may actually help community members resolve problems on their own, bypassing the shelter system entirely. In the meantime, resources should be provided to resolve common issues, including:

- sources for low-cost spay/neuter and other medical services
- behavioral information and help to resolve common issues
- information and web-based posting sites to help finders reunite lost pets with owners
- information to help owners rehome pets safely on their own
- An example of a shelter's resource page for owners awaiting appointments can be found at:
 - http://www.animalhumanesociety.org
 - http://animalhumanenm.org/pets/about/managed_admissions.php

Guidelines on establishing a managed intake program for cats can be found at:

• http://www.maddiesfund.org/Documents/Institute/Cats%20by%20Appointment%20Only%20Waitlist%20Guide.pdf A database can be created to manage appointments or a simple paper-based system can be used. Priority for admission should be given to juvenile animals (old enough for adoption, young enough to be maximally cute), as delaying intake of youngsters for more than a short time may allow them to grow to a "less-adoptable" stage.

Intake criteria

There has been much discussion in the sheltering community of euthanasia criteria, but less discussion of the flip-side of that decision - admitting an animal to the shelter. However, these choices are two sides to the same coin.

For a limited intake shelter with finite capacity, deciding to admit or transfer some animals often means deciding against others, whose fate may be euthanasia at another facility. For an open intake shelter, if healthy animals are routinely admitted in excess of the number released alive, the "choice" is made daily that some animals will be euthanized. It only remains to be seen which ones. If the policy is additionally not to euthanize for space or time, the default system will be awaiting development of illness or behavioral disorders.

Each shelter and community has a finite ability to rehome animals within any given time period. The need often far exceeds this capacity. These are difficult realities to acknowledge. However, facing them and making conscious choices about priorities and alternatives can be profoundly empowering. This is where managed intake plays an important role.

Importance of decision making criteria

Every year, hundreds, thousands or even tens of thousands of animals enter the typical shelter. For each animal, multiple decisions are required: where to house the animal; whether rescue contact should be initiated; whether additional investment in the animal, such as medical treatment, is needed and affordable; whether the animal is a safe candidate for adoption or poses a risk to the public; etc. This easily amounts to dozens of decisions required each day.

The most important and difficult decision that sometimes has to be made is the one to euthanize an animal. For shelters that manage intake, a similar dilemma is faced with the choice to admit an animal or not or *when* to admit them. We owe it to the animals and ourselves to ensure that these critical choices are made based on a well-thought-out set of criteria; developed in a rational manner with input from appropriate stakeholders; and designed to maximize the welfare and number of animals released alive while minimizing the holding time and suffering of animals that will ultimately be euthanized.

Avoiding decision fatigue

"Decision fatigue" is a well-documented phenomenon in which the quality of decisions deteriorates after extended sessions of decision making. This is no reflection on the intention, intelligence or effort of the decision-maker, but a simple result of depletion of the brain's resources. After a barrage of choices, people are simply unable to rationally evaluate the choices at hand. The greater the consequences to be weighed with each choice, the more rapidly decision fatigue sets in (for instance, several studies have found that poor people are more depleted by shopping than wealthy ones, perhaps because each choice requires a greater trade off). Fatigued decision makers often resort to the "default" choice, the one which tends to support the status quo.

This is an important consideration for animal shelter professionals. Not only are choices abundant and relentless, the consequences are often profound. The "default" choice for an animal's future is often to make no choice at all and simply hope for the best. This hazard exists for shelter intake choices as well as euthanasia choices – sometimes the emotional impact of declining an animal for admission or transfer can be similar to selecting an animal for euthanasia. Unfortunately, the default choice too often results in prolonged length of stay and a reliance on deteriorating health or behavior to "decide" the fate of animals.

In order to prevent decision fatigue from adversely affecting choices (or lack there-of), decisions should ideally be made early in the day or after a break – and a snack, as glucose helps restore decision making ability O.

Decision making responsibility should be rotated between individuals if possible. Good decisions are easier if less dire alternatives are developed: shelter/neuter/return instead of euthanasia for a healthy but timid stray cat, for instance, or deferral of admission to a later time rather than flat-out refusal.

Most importantly, decisions with major implications - such as those that relate to intake, adoption and euthanasia - should be based on a set of criteria decided upon in advance by a group of knowledgeable stakeholders. With these criteria in place, the "default" decision is to comply with the thoughtful plan, and the active decision is to deviate from these agreed upon standards. This has the added benefit of relieving the weight of decision making from the shoulders of any one individual – even if they are the ones making the actual choices, the responsibility is shared by all who helped in the plan's development.

Protecting the youngsters and creating alternatives to intake

One of the most important roles of intake criteria is to protect the most vulnerable and, in many communities, the most adoptable animals: puppies and kittens. Juvenile animals are most likely to enter the shelter with minor treatable conditions, and most likely to succumb to disease associated with crowding. However, if these conditions are treated or prevented, in many cases these youngsters are almost certain to be adopted. If a shelter is chock full of adults, the "default" choice may become euthanizing a youngster with a treatable illness, or allowing a more serious illness to sweep through a crowded shelter and take the choice out of human hands.

For a limited intake shelter, highly adoptable puppies and kittens may remain at risk in the community or at another shelter, missing their best window for adoption, while the shelter is packed with slower-moving adult pets. Meanwhile, some healthy but less "adoptable" (e.g. shy, older) adult animals may sit and wait for adoption for weeks or even months. Neither population is well served and fewer adoptions overall are achieved while considerable additional stress may be incurred by animals confined long term.

Creating intake criteria becomes easier if we remember that the alternative need not be euthanasia. In fact, accurately identifying animals with a low chance of adoption *in a particular shelter at a given time* increases the opportunity for alternatives to be provided. For animals not yet admitted to the shelter and not in immediate danger, intake can be deferred until a more favorable time period. The owner or finder can be provided with a realistic assessment of the outcome should the animal be accepted for admission, and resources can be provided to allow them to keep or rehome the animal in the meantime.

For animals already in the shelter, alternative avenues of live release may be available. For healthy but fearful stray cats, spay/neuter/vaccinate and release to the location found is an increasingly popular choice. When this is not an option, less readily "adoptable" animals can be sent to long term foster care for return at a better time, e.g. after kitten season or to coincide with major adoption promotions. Meanwhile, they need not sit in a cage awaiting adoption when their chances are low and the space is needed for others. Ultimately, even if the choice is euthanasia, a conscious decision-making process will protect more lives, avert more suffering, and conserve more resources for life saving programs.

Okay to ask – should they enter?

For healthy, weaned animals that are presented to an animal shelter the question of if they could be managed/helped in some way other than entering shelter should be considered. Many shelters have started to ask – is the outcome for bringing an animal in better than leaving them where they are? For example an Ohio study found that cats are 13x more likely to find their way home when left where they are as opposed to being brought into an animal shelter.

Also, choosing not to admit an animal may be a good choice when the outcome if admitted will be euthanasia of that animal or another animal and when the animal is not suffering, is not at immediate risk, or causing danger in the community.

Some important steps shelters should take

When looking at their intake policies, shelters should review the local and state laws and ordinances. Do the laws authorize impoundment OR mandate it? It is very rare that there is any mandate for cats at the state level. Many shelters find that they have to do SOME things for SOME animals but certainly are not responsible for all animals. It also should be noted that leash laws pertain to owners and NOT the animal.

Shelters should also close their afterhours drop boxes if they have them. This will eliminate unplanned intakes and help with managing intake. Nothing gives the impression that animals are disposable like having drop boxes available to turn in animals. The shelter can let the community know this is the plan in advance of closing them and give alternatives for where injured animals can go when the shelter is not open. Shelters who have closed their drop boxes have universally experiences a decrease in intakes and infectious disease spread of newly admitted animals.

As mentioned previously, shelters can offer resources to divert intake or allow owners to keep their pets. Even if the owner ultimately does surrender the pet, some length of stay took place outside the shelter which decreases the length of stay in shelter which is better for this animal as well as all of the animals in the shelter.

Lastly, shelters need to take credit for and keep track of all animals that they help by means other than sheltering. Diverting intake and helping owners keep their pet takes staff time and resources. Many times it is simply a reallocation of staff time and resources however if budgets are based on intake numbers, the hope is that budgets will not be cut when intake numbers go down. Keeping animals out of the shelter is an important place to make investments and will in turn allow the shelter to have more resources for the animals that need to come in.

References

Edinboro, C.H., et al., A clinical trial of intranasal and subcutaneous vaccines to prevent upper respiratory infection in cats at an animal shelter. Feline Practice, 1999. 27(6): p. 7-13.

Dinnage, J.D., J.M. Scarlett, and J.R. Richards, Descriptive epidemiology of feline upper respiratory tract disease in an animal shelter. J Feline Med Surg, 2009. 11(10): p. 816-25.

Wagner, D., et al., Elimination Behavior of Shelter Dogs Housed in Double Compartment Kennels. PLoS online journal, 2014.

Kry, K. and R. Casey, The effect of hiding enrichment on stress levels and behaviour of domestic cats (Felis sylvestris catus) in a shelter setting and the implications for adoption potential. Animal Welfare, 2007(16): p. 375-383.

Ottway, D.S. and D.M. Hawkins, Cat housing in rescue shelters: a welfare comparison between communal and discrete-unit housing. Animal Welfare, 2003(12): p. 173-189.

Gourkow, N., Factors affecting the welfare and adoption rate of cats in an animal shelter. 2001, University of British Columbia.

Kessler, M.R. and D.C. Turner, Socialization and stress in cats (Felis silvestris catus) housed singly and in groups in animal shelters. Animal Welfare, 1999. 8(1): p. 15-26.

Kessler, M.R. and D.C. Turner, Stress and adaptation of cats (Felis silvestris catus) housed singly, in pairs and in groups in boarding catteries. Animal Welfare, 1997. 6(3): p. 243-254.

McCobb, E.C., et al., Assessment of stress levels among cats in four animal shelters. Javma-Journal of the American Veterinary Medical Association, 2005. 226(4): p. 548-555.

Weiss, E., et al., Why Did You Choose This Pet?: Adopters and Pet Selection Preferences in Five Animal Shelters in the United States. Animals, 2012. 2(2): p. 144-159.