Training Playbook:

Expanding Veterinary Capacity in Shelters

Introduction

Shelters and rescue organizations across the country are feeling the impact of the veterinary shortage. As lifesaving increases and shelters close in on the 90% no-kill save rate, animals with medical issues and preventable infectious disease make up a large part of the hardest-to-save portion of the population in those organizations. While shelters should celebrate their ability to tackle these more challenging populations, this level of lifesaving also introduces new challenges to providing necessary veterinary care. Veterinarians and support staff are feeling more overwhelmed than ever as the demand for care increases.

Rather than asking veterinary and shelter staff to simply do more, though, a sustainable approach exists. Shelter leadership and medical teams can employ certain strategies to expand their capacity for veterinary care while avoiding burnout and turnover. Medical teams can change the ***way*** they work so that more animals can receive quality medical care and more lives can be saved – while also preserving quality of life for veterinary and shelter staff.

Background

There are several trends that have impacted the industry in the past several years, including more open positions than number of vets seeking employment. For instance, in 2019 the American Veterinary Medical Association (AVMA) reported that there were 18 veterinary jobs posted on its online Career Center for every vet seeking a job. To offset the high levels of stress that come with the job, more vets want to work fewer hours for less compensation – a trend that increased in 2021 to levels higher than in pre-pandemic years. Lastly, turnover among vets is twice the amount reported for physicians.

Mars Veterinary Health conducted research in 2022 to identify the expected impacts this veterinarian shortage will have on pet health care. Researchers estimated that pet health care needs will increase, requiring an additional 41,000 companion animal veterinarians by 2030. Given the expected graduation of new veterinarians and of those retiring over that period, the research concluded that the profession will be facing a shortage of nearly 15,000 veterinarians.

A survey of shelters, rescue groups and animal control agencies in early 2020 (pre-pandemic), 56% of respondents said the national veterinary shortage was impacting their organizations “a lot” or “a great deal.” Anecdotally, this impact is thought to be even higher in post-pandemic years as non-profit and government organizations struggle to keep pace with the rapid increases in veterinarian salaries offered at corporate and private practices.

Veterinarians working in shelters are also disproportionately feeling the strain of the industry shortage. A survey conducted by the Association of Shelter Veterinarians (ASV) found that 53% of respondents (ASV member shelter veterinarians) were considering leaving their job in the next one to three years, and 27% were considering leaving shelter medicine as an industry.

Industry-wide solutions are needed to fully tackle this problem and multiple stakeholders are working on them. These long-term solutions take time, however, and animals need care ***today***. In the meantime, asking (or requiring) shelter medical staff to do more is not the answer. Shelters’ lifesaving strategies must include changing the way teams work so that care is provided for more animals in a way that does not also burn out those teams. This playbook will share some of those strategies.

Leveraging support staff

Of all the strategies outlined in this playbook, leveraging support staff (e.g., veterinary technicians, veterinary assistants, additional trained medical support staff) is likely the most important. Crucial to this strategy is the principle that every individual should practice at the top of their license, meaning that veterinarians don't perform tasks that technicians can perform, technicians don't do the work that an assistant can do, and so on. Contrary to that principle, current estimates are that only 30% of a technician's competencies are utilized in private practices

A commonly asked question is, "What number of support staff are needed for each veterinarian?" Unfortunately, there is not a simple answer to that question because every shelter clinic is different. Some guidelines can be borrowed from private practice research and from shelter experience, though. Data presented at the AVMA's economic summit found that productivity was maximized with a tech-to-vet ratio of 4:1, though many shelters and spay/neuter programs need 5:1 to feel they're running most efficiently. While these guidelines can be used as a starting point, every program is different. In shelters where veterinarian positions remain empty, much higher ratios may be necessary to provide appropriate care for large volumes of animals (especially in jurisdictions where regulations allow support staff to perform a wide range of procedures and care under supervision of a veterinarian). Ratios as high as 15:1 have been observed in some shelters.

Restrictions are highly variable across state laws and local ordinances as to which staff may perform certain procedures. For example, some locations allow shelter staff to perform rabies vaccinations while under the on-site supervision of a veterinarian, but only if the vet is physically on the premises. Ownership transfer laws may impact requirements for a veterinary-client-patient-relationship that can inform when treatment is performed and by whom. Consultation with a veterinarian, veterinary medical association or board representative in your state can help determine how regulations are specifically applied to shelter pets in your area.

Using shelter medicine protocols

Utilizing medical protocols developed by a veterinarian specifically for each shelter is crucial to providing efficient, timely animal care. A veterinarian familiar with the shelter and its population can make timely visits to the premise and comply with typical state practice act requirements for establishment of a veterinary-client-patient-relationship. Protocols developed in consultation with this vet of record can then be implemented by trained staff at the shelter under the supervision of that vet (in some circumstances, even when they are not on site). At a minimum, this should include protocols for intake treatments and preventive healthcare; it can also include protocols for the management of common conditions, such as infectious disease. The use of protocols implemented by staff not only allows for expansion of limited veterinary bandwidth, but shelter pets also receive treatment sooner than if they must wait for a veterinary evaluation for every issue. Proactively responding to infectious disease also helps reduce the spread of illness and keeps the rest of the population healthy.

The ASV position statement on veterinary supervision in animal shelters supports the use of protocols for both preventive health care and for treatment of common medical and behavioral conditions that is designed and implemented under the guidance of a veterinarian who is familiar with the specific shelter. You can review the full ASV guidelines for standards of care in animal shelters here.

Leveraging technology

Various opportunities exist for shelters to improve their medical programs by leveraging technology that will ultimately increase efficiency and capacity. For example, telemedicine may be used to provide veterinary care where allowed based on state practice acts and in situations where an in-person veterinary-client-patient-relationship has already been established (if establishing solely via remote means is not permissible). In this circumstance, telemedicine could include the veterinarian diagnosing and prescribing treatments. Tele-triage, defined as feedback that stops short of actual diagnosis and prescribing but covers guidance on whether a pet needs to be seen in person, may also have applications in the shelter setting. In reality, this is something that most shelters have been doing on some level for years for their foster pets. The biggest opportunity that has emerged as this sector of veterinary health care has grown is that there are now dedicated software platforms that can streamline such care, or even outsource it.

Watch this webinar to learn more about the practical use of telehealth in shelters.

Scheduling software such as Acuity streamlines spay/neuter or foster appointments by allowing individuals to schedule their own appointments during available blocks. Waitwhile is another platform with appointment booking functionality that can improve the client experience.

Project management software platforms like Trello and Airtable allow staff to collaborate more effectively across teams; they can also be used to engage directly with fosters or transfer partners. Learn how to use Trello to make a transport partner board here.

Read more about how shelters have implemented tech platforms to streamline their lifesaving work.

An often-overlooked piece of technology is shelter software, which typically has a variety of features designed for the medical team. These include automated reports for vaccine and preventive care reminders, diagnosis tracking, reports to determine which animals are waiting for sterilization (which can reduce bottlenecking in the shelter's flow), and task lists or lists of animals needing a vet or technician assessment. Shelter software often features customizable templates for medical tasks as well, including surgery reports, exam templates, common treatment combinations (e.g., intake treatments) and client communication templates. Automating foster appointment reminders for preventive care can streamline care, especially when combined with a link for fosters to schedule their own appointment.

Have shelter software but don't feel like you're using it as effectively as you could be? Check out the resources section for more information on using your shelter data to drive lifesaving.

Volunteer programs

What can volunteers do in a shelter medicine program? Nearly anything that staff can do, provided they receive appropriate training! Volunteer positions in medical departments should be held in high regard and are often coveted positions for long-time volunteers. A recurring commitment from volunteers for these positions should be required given that there is an additional training investment, and such expectations should be communicated early.

A common complaint from shelters is that volunteers are unreliable and so cannot be counted on to take on crucial responsibilities in medical or surgical programs. To solve for this, set clear

expectations up front and require volunteers to treat these positions like a paid position, including notifying staff if they are unable to attend a scheduled shift. Dismissal from these positions should result if volunteers are unreliable and volunteer coordinators must set these expectations in advance.

An added potential benefit of volunteer-supported medical programs is that they may help destigmatize diseases like ringworm or canine distemper. After finding out that care of these populations is not complex or scary, these volunteers can be strategically converted into foster parents!

Recruiting for volunteers should take place at local technical colleges, universities and even high school health sciences programs. Pre-veterinary and veterinary technician/assistant students may be able to fulfill hands-on hours requirements needed for their program at shelter clinics and can be a pipeline for new hires after graduation.

Examples of tasks for volunteers in shelter medical and surgical programs include:

- Monitoring surgical patients in recovery
- Kennel technician duties in the medical/surgical wards
- Data entry (utilizing medical/surgical templates)
- Surgical instrument cleaning and pack preparation
- Intake and discharge for spay/neuter
- Ringworm lime dip
- Socialization for isolation patients (especially those spending lengthy periods in shelter isolation wards)
- Daily medication administration
- Neonatal kitten care
- Cleaning and basic care in medical or surgery wards

Check out this playbook to learn more about volunteer programs.

Worried about having enough staff to support a volunteer program? Although it's far quicker to hire for a volunteer coordinator position than it is to hire for a veterinary technician, you can always start off with assigning the job to a volunteer. While a technician and a volunteer are not equivalent, several volunteers over the course of a work week can certainly do the work of one skilled tech or assistant. However, it pays off to invest in the staff to manage the program and spend the time in training them when long-term benefits are factored into the equation.

Foster programs

Foster programs can exponentially increase the volume of pets that shelter medical programs can care for, as daily care, treatment and progress monitoring is outsourced to such volunteers. A single foster coordinator can manage numerous foster parents, exponentially increasing the number of animals the shelter can help. Foster pets also get more individualized attention and better socialization than they can when housed on-site.

Consideration should be given to streamlining processes for foster parents so that they can report issues and have their animals evaluated by foster and/or veterinary staff in a timely manner. Particularly when fostering sick pets, it is crucial for foster parents to feel supported and to receive guidance when sought so that they will continue to foster at-risk pets.

In situations where regulations allow, foster staff (even those without previous medical background) can be trained in the use of medical protocols for preventive and basic care, reserving veterinary team bandwidth for those cases that are out of the ordinary or are not responding as expected to first-line therapies.

Spay/neuter programs

High-quality, high-volume spay and neuter (HQHVSN) programs are critical to the continued progress of lifesaving nationally. The sustained push to sterilize animals over past decades has resulted in population decreases or stabilization that has made reduction in shelter euthanasia possible. Specialization in this subset of veterinary surgical procedures leads to greater opportunities to increase efficiency in the HQHVSN setting. The two main areas to address are surgeon technical skill and the efficiency or flow of the entire clinic team.

Education opportunities for veterinarians that provide instruction in HQHVSN techniques exist, and veterinarians are encouraged to seek them out. If in-person, hands-on training is not available, a variety of online learning opportunities are available. Organizations should support their staff vets or partnering private practice vets in pursuing these learning opportunities. Refer to the resources section for more information on available opportunities, both online and in-person.

Spay/neuter program efficiency hinges on surgeon efficiency, but other factors that contribute to the overall capacity of the program include the number of support staff, their individual efficiency levels and clinic flow. Processes should also be put into place to minimize distractions. The surgeon should ideally be responsible only for surgery, with other tasks delegated to support staff during surgery hours (or, barring true emergencies, are held until surgery is completed for the day).

Ideally, any down time between surgeries should be minimized. When everyone is practicing at the top of their license, the only thing the vet should be doing (other than surgery) is changing their gloves and moving on to the next patient. While a few seconds on each patient may not seem like much, these small increments of time add up. Just 30 seconds per procedure multiplied over the day's surgery load can equate to the time needed to perform three to four surgeries per day. That adds up to potentially 800 or more surgeries annually!

While a veterinary examination is required before anesthesia, every effort should be made to facilitate these exams in a timely manner so that surgery begins as early in the day as possible. Ideally, the only tasks that the surgeon performs prior to beginning surgery are those pre-anesthetic exams. At the close of the surgery day, the vet should not be involved in routine data entry or other tasks that can be delegated to support staff and volunteers. That leaves them free to move on to other vet-specific tasks. Contract surgery vets should be able to leave for the day once animals are recovered, which is a big part of the appeal of these shifts. An efficient day will entice contract vets to keep coming back.

Clinic flow and opportunities for improvements in efficiency vary widely between clinics; on-site consultations and training opportunities for entire teams are recommended to maximize surgical capacity in a given setting. See the resources section for more information on these opportunities.

Review the ASV's medical care guidelines for spay/neuter programs here.

Exploring alternative outcome options

Rather than using limited internal veterinary bandwidth to manage medical cases, consider outsourcing this care through transfer or adoption. This might mean you need to be transparent with your community and rescue partners about cases that are either outside of the shelter's current ability and bandwidth or that will spread that limited bandwidth too thin. Tell these stories on your social media pages and be honest about your limitations.

In many situations, it's necessary to place a deadline on when those animals might need an outcome, which is often based on the shelter's ability to safely, humanely care for them even on a temporary basis. For example, a trauma case with multiple fractures must receive adequate pain control and basic wound treatment while waiting on transfer or adoption. Infectious disease cases must be held in a manner that prevents spread to other animals in the shelter, even if that holding period is temporary while awaiting transfer to a local clinic or rescue partner.

Partnerships with other local organizations that create programs specifically targeting certain at-risk groups of animals are another option. Here are some examples:

- The Barn House AZ has a program for ringworm cats transferred from the local shelter
- Best Friends Animal Sanctuary has a program to transfer in ringworm cats from shelters where they are at risk of euthanasia.
- Austin Pets Alive! Parvo Puppy ICU transfers in parvo puppies from the municipal shelter.
- The Pearland Parvo Recovery Center in the greater Houston area serves rescue and shelter partners (and is not open to the public) by providing treatment for parvo puppies.

Adopting medical cases directly to the public may make some shelter staff nervous, but it is a myth that we have to adopt out only perfect pets. Pets with medical conditions can be adopted after a conversation about what follow-up medical care is necessary, even if that necessitates taking the pet directly to a veterinary hospital upon adoption. Shelters have to trust the community to help with lifesaving, and the first step is being transparent by sharing what medical cases the shelter does not have bandwidth to care for.

Return-to-field (RTF) is also an alternative live outcome that is appropriate for some medical cases. For cats in RTF or shelter-neuter-return (SNR) programs, it is allowable or even beneficial to release them with some mild medical conditions. Examples include ringworm that is self-limiting in otherwise healthy adult cats or upper respiratory infections that will likely be made worse by being held in a shelter. "One and done" treatments can be prioritized whenever possible, and these treatments should be consolidated with sterilization surgery to make release as quick as possible. In some situations, it may be beneficial to identify a caretaker for additional monitoring of cats after release, and caretaker identification may influence the decision-making process.

Refer to this document to help with return-to-field decision-making for medical cases.

Partnering with private practices

For shelters without an on-site veterinarian, and sometimes even for shelters that do have one, partnering with private practice veterinarians can provide otherwise inaccessible veterinary care or can expand the capacity of the existing veterinary team. Benefits to the local practitioner are that, in many cases, they can add shelter cases to their day with less additional time devoted to

client communication. Likewise, drop-off appointments allow shelter pets to be worked into their schedules time allows during the day, which allows the practice more flexibility while generating additional revenue. Through promotional materials provided to adopters, every adopter is a potential future client, so these partnerships are a marketing opportunity for the practice. Shelters can ask for discounts or other allowances in return (like being worked into the day for more urgent cases rather than having to wait for an appointment).

Shelters can also outsource after-hours or emergent care to local emergency practices, and this will reduce the burden of on-call duties on shelter staff. To streamline this process, it's recommended that the shelter establish guidelines or a spending cap on what the emergency hospital can do without additional approval. Focusing on basic stabilization followed by additional workup at the shelter the following day is a common arrangement. Partnerships can be established for an after-hours clinic to provide triage services to foster parents so that shelters can avoid on-call time for their staff and unnecessary emergency visits for foster pets. This also gives foster parents additional peace of mind that may make the difference in their decision to foster again for the shelter.

What can the veterinary team *stop* doing?

Along with taking a critical look at what tasks specific staff members are performing, shelters should review what tasks or practices the medical team is doing that might be an unnecessary use of time and resources. Categories to examine include public services, screening healthy cats for retroviral diseases and other diagnostic testing.

While veterinary services provided to the public are clearly, beneficial, it is prudent to critically evaluate what services the shelter is providing that may need to be reduced or put on hold during times of short staffing or limited bandwidth. It is not uncommon for shelters to continue providing spay/neuter services to the public even when they have not yet met the demand for spay/neuter within their own population of animals. Reprioritizing shelter pets over the public is necessary in times of limited resources. If public services are provided, then consider targeting those services to geographic or programmatic areas that will directly impact the shelter, like intake. Vaccination programs can focus on areas where animals entering the shelter are known to have contagious disease (which can directly impact the health of the shelter population) or spay/neuter programs can target neighborhoods or zip codes of high intake, particularly of juvenile pets.

Read more about addressing the need for spay/neuter and the paradox of adopting unaltered animals in this interview.

For provision of sick or injured animal care, the need to relinquish an animal to the shelter can be a point of entry into a safety net program. Consider an intake diversion program that can provide medical care rather than broader provision of services via community clinics. Access to veterinary care for the community is a challenge and a problem that deserves attention, but when shelter medical resources are limited, it makes sense to focus on the immediate needs of the shelter population first before expanding into extensive public services.

Routine screening of all healthy cats for FeLV/FIV is another practice that many shelters have stopped. The newest revision of the American Association of Feline Practitioners (AAFP) retrovirus management guidelines describe the trend in the last decade of shelters shifting the burden of testing to the adopter, should that adopter decide through consultation with their

veterinarian that testing is recommended. When the prevalence of a given disease is low in a population (as is the prevalence for both FeLV and FIV in typical shelter and community feline populations), a positive test in a healthy cat is more likely to be a false positive than a truly infected cat. Confirmatory testing to investigate the result is complicated and expensive – and often outside the reach of many shelters. Test results and what they might mean are better addressed by private practice veterinarians in conversation with the adopter, where the various additional options for testing can be discussed in detail. Shelters can reallocate the financial and staff resources for other lifesaving programs.

Many shelters express concern over the number of angry adopters and returned cats that they will face if they were to stop testing. In reality, many high-intake shelters have forgone the practice of routine testing of healthy cats over the past decade, and this worry over the surge in angry adopter calls and returned cats has not borne out.

Diagnostic testing is another area of shelter veterinary practice to critically examine. If a diagnostic test is not going to change the course of management for an individual patient, is there value in running that test? In the context of shelter medicine, there is also the population to consider. Even if the test result may not change the course of care for the individual, there may be larger population impacts. Shelter medical programs should critically evaluate their practices and seek to eliminate unnecessary time and resources spent on testing if those results will not change the plan for the patient or the population.

A frequently encountered example is running fecal exams on shelter animals with diarrhea. Given that fecal exams can fail to find evidence of parasitism in some cases, might it make more sense to initially focus on the common causes (parasites, diet change and stress) and reserve time- and labor-intensive testing for cases that don't rapidly respond with time and empirical treatment? Empirical therapy in this situation may even do a better job preventing the spread of illness in the shelter (and, in some cases, zoonotic spread to humans) when it is instituted rapidly, rather than waiting hours or days for the results of the diagnostic test. This is not to say that fecal tests should never be run in a shelter setting – far from it – but it provides a great example of a routine practice that should be evaluated for its benefit in a particular setting.

Adhering to the adage in veterinary medicine, "Don't run a diagnostic test if it's not going to change what you do," may serve to free up significant staff time and financial resources in shelter settings, particularly when it's applied to eliminate broad applications of diagnostic testing as a protocol. The flip side is that if testing is warranted in most cases of a particular clinical sign or disease, adding this diagnostic test to the shelter's medical protocol may save time in the long run as it eliminates the time necessary to order the test and allows staff to rapidly take the next step and keep the case progressing.

Preventing disease

While a complete discussion of disease prevention in a shelter setting is outside the scope of this playbook, it is worth noting that prevention of disease is far less resource-intensive than treating, including in relation to the extremely limited resource of veterinary professional bandwidth. It is a far better use of a shelter veterinarian's time to develop protocols and train staff to proactively prevent infectious disease than to respond to outbreaks or treat individual animals.

See the resources section for additional information on disease prevention and management and related topics (sanitation, population management, sample protocols for specific diseases).

What can I do today to increase veterinary capacity?

Here are three steps you can take today to work toward increasing your shelter's veterinary program capacity and extend veterinary bandwidth.

1. **Assess your shelter's use of veterinarians, technicians, assistants and support staff**. Is everyone practicing at the top of their license? If not, what tasks or jobs can be delegated to ensure that they are? Are there new (potentially lower-paid and requiring less formal education or credentials) positions that can be created to better support the professional staff? What about creating volunteer roles?

   Need help with an assessment? Fill out this form to apply for a consultation from our shelter medicine outreach team. Through an on-site visit or remote consultation, we can help identify opportunities for improved efficiency in your shelter medicine and spay/neuter programs.

2. **Create and implement sanitation, biosecurity and disease prevention procedures**. Feel like you're always putting out infectious disease fires? Review the resources on sanitation and disease prevention. Dedicate time up-front to creating effective sanitation and biosecurity Standard Operating Procedures that prevent and reduce disease, rather than simply responding when disease occurs. See the resources for additional information and examples.

3. **Start asking for help**. Be transparent with your community, your foster base and your transfer partners about what you're struggling with when it comes to medical cases or challenging medical populations. You don't know what they'll be willing to take on until you ask. Post a medical case on your social media to fundraise or to find a foster home, adopter or transfer partner willing to take on some or all of the care. Be sure to share the outcome and celebrate your successes with your staff and your supporters, too!

Additional Resources and Documents

Consultations and training opportunities

- Shelter medicine consultations and assessments by Best Friends' shelter medicine outreach team
- HQHVSN training workshop from Best Friends designed to increase surgical capacity for veterinarians and technicians
- ASPCA Spay/Neuter Alliance offers veterinarian and team training in HQHVSN
- "Ask an Expert" from San Diego Humane Society - shelter medicine veterinarian residents at SDHS can remotely assist with disease management, protocol adaptation, or other specific issues.
- Sartorelli Consulting offers on-site and virtual team training and assessments for HQHVSN programs.

- Open Door Veterinary Collective offers consultations for access to veterinary care clinics and shelter programs and assistance with program implementation.

Examples of medical protocols

- Sample intake protocol
- Sample ringworm treatment protocol
- Sample ringworm algorithm
- Sample kitten medical protocol and dose charts (in pounds and kilograms) for use by foster staff and medical support staff for common conditions in kittens
- Sample feline URI protocol
- University of Florida Shelter Medicine Program – sample disease protocols and resources

Sanitation, biosecurity and population management

- "Disease Control – The Role of Sanitation Training" playbook
- Sample biosecurity policy and protocol
- "Daily Rounds: Planning a Pathway" playbook
- Daily rounds SOP template

- Best Friends length of stay manual
- UC Davis Koret Shelter Medicine Program's "Shelter intake and pathway planning" resource
- UC Davis Koret Shelter Medicine Program's "Shelter operations/capacity for care (C4C)" resource

Spay and Neuter

- ASV medical care guidelines for spay/neuter programs
- Best Friends' HQHVSN workshop (training program for veterinarians and technicians in HQHVSN surgical techniques and clinic flow)
- ASPCA Pro Spay/Neuter Alliance training
    - ASPCA Pro Online spay/neuter library

Telemedicine

- ASV position statement on telemedicine
- Veterinary Virtual Care Association
- Maddie's Fund webinar "Caring from across town: practical telehealth for shelters and clinics"

Data, Metrics and Shelter Software

- Best Friends *Humane Animal Control* manual chapter "Shelter animal data collection"
- Best Friends Mapping Made Easy resource
- "Every Nose Counts: Using Metrics in Animal Shelters" textbook
- AAWA and Shelter Animals Count "Strength in numbers" series:
    - Quality Time: Standards for Entering and Using Data

    - Decisions, Decisions: Using Data to Evaluate Programs and Identify Opportunities
    - What's the Story with Your Data?

Retroviral (FeLV and FIV) Testing

- University of Wisconsin Shelter Medicine Program: Why are some shelters no longer testing all cats for FeLV and FIV?
- University of Florida online book chapter: Should shelters test for FeLV and FIV?