

**TOWARD A NEW FRAMEWORK FOR COMPANION ANIMAL
HEALTHCARE SERVICES AT THE COMMUNITY LEVEL**

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VCSN 653: Capstone Project

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Date: April 18, 2022

DEDICATION

Dedicated to the beloved cats, surrendered by other people, who have joined my family and shared my home over the years, and each of whom has enriched my life.

ACKNOWLEDGMENTS

First and foremost, I would like to thank my advisor, Dr. Jenni Punt, for her unwavering guidance and support since the inception of the Animal Welfare and Behavior Program. Without Dr. Punt's enthusiasm and encouragement, I would not have undertaken graduate studies in an unfamiliar field forty years after attending law school.

I also express my sincere gratitude to the faculty members of the Program who have so generously shared their expertise and dedication to animal welfare with me and my classmates. In particular, both Dr. Thomas Parsons and Dr. Meghann Pierdon oversaw our progression through two years of foundational and elective coursework in preparation for the Capstone concentration. I would also like to thank Dr. Carlo Siracusa and Dr. James Serpell for their excellent courses. Thanks, too, to Chipu Siantumbu and May Truong for administrative and instructional support, respectively, since the launch of this new Program.

My thanks to Penn Vet Librarian Margaret Lindem for her kindness and patient assistance with scientific literature research methods and references management. I also appreciate the expert technical guidance provided to me by Craig Brody.

I am grateful to James DePaul and Josiah Ortiz for sharing with me their observations on pet surrender and experiences in shelter management, and to Cara Morgan for offering insights into veterinary nursing career challenges.

Heartfelt thanks to my classmates, and especially to the members of our inaugural cohort from Fall 2019 who have applauded each other for three academic years, through written assignments and PowerPoints, readings and welfare assessments, and finally to our Capstone projects. As students in an online program, spread out across the United States, most of us have not yet gathered together in person, but we feel closely connected. You are all poised to make a positive impact on the welfare of animals.

In particular, I express deep gratitude for my long distance classmates and accomplished new friends who have offered mutual support and constant encouragement throughout our shared later career academic journey: Dr. Noel Dybdal, Suzanne Kapral, and Dr. Tracey Sasher. I have also been inspired by classmate Dr. Catie Torcivia at New Bolton Center. Special thanks to my energetic local classmates and neighbors, Morgan Hresko and Jonah Binstock, who are always ready to meet for discussions about our classes and research.

Finally, I am grateful to my husband for his patience with dinners delayed by my coursework, and to my son and son-in-law for cheering me on to stay busy and reach this finish line.

ABSTRACT

TOWARD A NEW FRAMEWORK FOR COMPANION ANIMAL HEALTHCARE SERVICES AT THE COMMUNITY LEVEL

Kathryn Deans-Schaub

An estimated 2 million or more companion animals every year are surrendered to shelters in the United States by their “pet parents” for a variety of reasons. The literature on companion animal surrender indicates that such relinquishments occur for owner-related and/or animal-related reasons. Research suggests that human housing issues are closely related to pet relinquishment, that animal behavioral issues are a frequent reason for surrender, and that pet healthcare needs and expenses are often associated with animal surrender. Many of the reasons for surrendering a pet, and especially those related to human housing, animal behavior, and pet healthcare expenses, are potentially connected with financial constraints. If assistance and support were available to “pet parents”, through the public and/or the private sector, it is likely that the incidence of pet surrender could be reduced. Existing programs at both the animal shelter level and the broader community level do offer assistance and, especially with respect to pet healthcare needs, certain veterinary services are brought into some underserved communities. This paper explores barriers to receiving companion animal healthcare services and options to structuring in-community veterinary care services, proposing that animal health services be actually embedded within the community instead of brought into the community. The proposed community-embedded animal health model is based upon a “pyramid” structure for animal health services, moving upward from neighborhood pet healthcare “hubs” through local clinics and community hospitals. Similarly, a “pyramid” structure for staffing, designed to address care accessibility barriers including communication challenges and diversity within the allied veterinary professions, would be built upon a foundational level of a cadre of local community animal health workers. Also contemplated is enhanced utilization of veterinary technicians/nurses, as well as creation of a new midlevel veterinary professional role, under the direction and supervision of a licensed veterinarian. I predict that the incidence of pet surrender due to financial-related challenges would decrease as a result of community-embedded multi-level support for pet healthcare.

Introduction

The day that a companion animal goes to his or her “forever home” marks the beginning of a new human-animal relationship and development of a human-animal bond.

Unfortunately, the pet’s tenure in the new home may not last forever. Keeping people and pets together, when appropriate, should be a priority (*ASPCA Position Statement*, n.d.). Absent instances of abuse, cruelty or neglect, it is generally accepted that it is preferable to avoid surrendering a companion animal, consigning him or her to an uncertain future. Nevertheless, an estimated 6.3 million companion animals enter shelters in the United States every year, approximately one-third of whom have been relinquished by their human caretakers for a myriad of reasons (*ASPCA Pet Statistics*, n.d.).

Supporting a pet can be expensive, but “pet parents” are usually solely responsible for providing the goods and services needed by their companion animals. The financial cost of providing for a pet may cause someone to abandon or surrender a pet, even if cost is not expressly stated as the primary reason for such action, and such action would usually result in negative animal welfare. Core and enhanced pet-related expenses may include, but are not limited to, the following items: the initial costs of adoption fees; food and pet supplies; veterinary care, ranging from routine wellness examinations and immunization, through spay/neuter procedures, to comprehensive and specialized animal healthcare, and premiums for pet health insurance; obedience and behavioral training; grooming; and dogwalkers or doggie daycare.

Despite their affection for their pets, not everyone is able to afford even the most basic expenses for animal care. Lower income is associated with lower expenditures for pet-related goods and services, as well as for veterinary care (Wolf et al., 2008). Research has shown that financial considerations are not the most frequently given reason for surrendering a pet to a shelter, but the reasons cited by pet owners are often complex. Indeed, the reason given to a shelter upon surrender may not be the key or the only reason for relinquishment (DiGiacomo et al., 1998).

Review of Research, Initiatives and Solutions Relating to Surrender

Reasons for Companion Animal Surrender

The literature on companion animal surrender includes reviews of multiple articles reporting and analyzing a variety of underlying reasons for relinquishment. Numerous published papers and studies have analyzed the data to identify the most frequently given categories of surrender and to delve into the underlying causes. (*See, e.g.,* Coe et al., 2014). Whether discussing the examination of a plethora of articles, a multi-shelter study, or a single-shelter report, all commentaries have concluded that there is a division between owner-related and animal-related reasons for relinquishment. (*See, e.g.,* Lambert et al., 2019; *see also,* Lambert et al., 2015). Owner-related factors have been defined to include circumstances ranging from allergies to housing and moving; under

animal-related factors, the most frequently cited is behavior, especially for dogs. (Lambert et al., 2019). With respect to both owner-related and animal-related factors, I suggest that financial constraints directly or indirectly underlie many decisions to surrender a companion animal.

Numerous studies have concluded that more than half of animal surrenders were due to owner-related reasons, i.e., that they were triggered by human circumstances instead of by factors particular to the animal. For example, almost 60% of cats that were returned post-adoption to a shelter in Austin, Texas, were returned for owner-related reasons (Hawes et al., 2020). A study in Denmark found owner-related factors in three-quarters of surrenders for both dogs and cats, within which the primary reasons were an owner's health or housing issues (Jensen et al., 2020). It has also been found that lower income households are more likely to relinquish pets due to cost and housing issues than to behavioral issues (Weiss et al., 2015).

As to animal-related reasons for surrender, closely associated with an increased risk of relinquishment are a pet's behavioral challenges, including households not participating in dog obedience classes, and cats with inappropriate elimination practices (Patronek et al., 1996a, 1996b). It has also been observed that behavioral issues may be linked to an owner's readiness to expend time, money and further effort on a pet (DiGiacomo et al., 1998). After analyzing extensive statistical information relating to the return of recently adopted animals to the Charleston, South Carolina Animal Society, the researchers found that behavioral issues were the key reason for return of both dogs and cats (Powell et al., 2021).

While most of the articles cited above are relatively recent, consistent findings have been discussed in a number of seminal papers more than twenty years ago. Studying 71 reasons for relinquishment over 12 shelters in different regions of the United States, and then condensing those 71 reasons into 12 broad classes, researchers found that the top three class categories in descending order for dogs were human housing issues, behavior (non-aggressive), and human lifestyle, while for cats the top three categories were human lifestyle, human housing issues, and behavior (Salman et al., 1998). Ten of the 71 reasons for relinquishment in that multi-shelter study were labelled in the class of human "health and personal issues" ("HPIs") by the researchers, who found that they were the leading overall reason for surrender of cats and the third most common class of reasons for dogs, after behavioral and housing issues (Scarlett et al., 1999). Given that behavioral and housing issues, along with inadequate preparation or expectations for pet ownership, were commonly cited along with HPIs, the authors observed that perhaps "a constellation of concerns at the time of a stressful life event or problem precipitates relinquishment." (Scarlett et al., 1999, p. 56).

Similarly, while moving, landlord restrictions and space are frequent personal issues affecting surrendering pet owners, financial concerns are often cited with respect to the animal's healthcare expenses (DiGiacomo et al., 1998). These observations are consistent with studies of risk factors for relinquishment for both cats and dogs. Lack of

veterinary care was found to be associated with an increased risk of relinquishment, as was annual income under \$40,000 (Patronek et al., 1996a, 1996b).

Consistent with the above-cited historical analyses and reports, an interview with the former director of a small managed admission shelter in central Philadelphia yielded very similar anecdotal information. The interviewee worked in the shelter from 1990 until 2015, beginning as a kennel attendant and eventually retiring as executive director. Based upon his personal experience and recollection, he stated that he would rank owners' most common reasons for animal surrender as follows: (1) "moving"; (2) "landlord"; (3) "too many animals"; (4) "allergies" and "new baby" tied for fourth place; (5) "can't afford"; and (6) "can't care for it" (a catch-all term) (DePaul communication, 9/28/21). The current shelter manager at the same location subsequently provided the top three reasons given by surrendering pet owners for the first three quarters of 2021, during the Covid-19 global pandemic: (1) landlord/housing issues; (2) owner's health; and (3) financial issues. For animals adopted and then returned to this shelter shortly post-adoption during the same time period, the primary reasons given were: (1) behavior of animal (including interaction with pre-existing resident pets); and (2) unrealistic expectations of the adopter (Ortiz communication, 10/29/21).

In light of the foregoing studies and findings, a closer look at three key reasons for relinquishment is warranted. Given the frequency of references to owner-related housing and animal-related behavior as factors in relinquishing pets, as well as the important recurring theme relating to the expense of veterinary care, each of these surrender reasons will be addressed separately. I suggest that each of these reasons is associated with financial challenges and will discuss financially relevant approaches that may contribute to reducing the incidence of pet relinquishment.

1. Human housing issues are closely related to companion animal relinquishment.

Research into pet relinquishment has consistently identified housing issues as a frequently given owner-related reason for parting with an animal. "Housing issues, including rental and moving issues, were the most commonly investigated caretaker-related reasons among the primary-research articles." (Coe et al., 2014, p. 268). It appears that housing issues are likely to arise from both situational and financial limitations, and these limitations often arise in tandem. "Lack of affordable, accessible pet friendly housing has been shown to be a driver for relinquishment." (Weiss et al., 2015, p. 445).

Especially in urban settings, housing considerations are often given as reasons for surrender. A recent study of large dog relinquishment in New York City and Washington, D.C. revealed that housing issues were cited more often in New York, consistent with a high-density rental market, but that recent changes in personal situations were mentioned in both cities, most related to housing (Weiss et al., 2014). Similarly, in surveys of cat surrender conducted at RSPCA shelters in three Australian cities, housing

was given as a reason to not keep the cat in 47% of responses (Zito et al., 2016). Renting or living in an apartment or a mobile home has been associated with an increased risk of relinquishment (Patronek et al., 1996a, 1996b). For renters, who are most likely to be subject to landlords' rules, housing issues have been the primary reason given for "re-homing" of pets (Weiss et al., 2015).

Moving has been identified as a frequent trigger for surrender of a pet across time periods and across geographic regions. In the 12-shelter study more than twenty years ago covering different parts of the United States, moving was the most common reason given for relinquishing dogs and the third most common reason given for relinquishing cats (New et al., 1999). An additional reason given in connection with moving is often the incompatibility of a pet with new restrictions imposed by landlords or housing regulations. Moreover, many moves are involuntary.

Since moves may occur due to situations over which the pet owners have no control, the underlying reasons for the move and for the housing restrictions are also important factors (New et al., 1999). For example, the mortgage foreclosure crisis in the United States in 2007-2009 resulted in marked increases in the surrender of pets to shelters when families lost their homes due to foreclosure (Nowicki, 2011). Financial constraints further narrow options, so that there may be no choice but to part with a pet. Indeed, a recent nationwide telephone survey exploring former and current pet owners' reasons for "re-homing" their companion animals found that "[t]hose with income below...[\$50,000] were significantly more likely to re-home due to cost and housing issues as opposed to pet related issues..." (Weiss et al., 2015, p. 445).

Among those persons who gave moving as the primary reason for pet surrender in the 12-shelter multi-regional study from the late 1990's, the highly mobile age group of young adults was found to be over-represented (New et al., 1999). More recently, in a Canadian study to compare the perspectives of landlords and of young adult tenants who owned dogs in Calgary, the young adults believed that they were required to pay higher rents for less desirable rental properties and locations due to having dogs. Security deposits and nonrefundable pet fees were identified as an additional financial burden for the young adult renters (Graham et al., 2018).

2. Animal behavioral issues are a frequent reason for pet surrender.

The multiple papers arising out of the 12-shelter multi-region study include one with a focus upon behavioral reasons for relinquishment. While various behavioral concerns were identified for both dogs and cats, it was found that overall behavior problems were cited the most frequently for relinquishment of dogs and were the second most frequently given reason for surrender of cats. Pet owners were able to give between one and five reasons for relinquishment. "At least one behavioral reason was recorded for 40% of the dogs and 28% of the cats relinquished. Behavioral reasons accounted for 27% of the single-reason canine relinquishments and 19% of the single-reason feline relinquishments." (Salman et al., 2000, p. 95).

Animal behavior as a leading trigger for pet surrender has continued to be evident over the two decades since the above-cited multi-shelter study. After analyzing 77 articles, investigators determined that, among animal-related reasons for surrender, behavior is the most frequently given, especially for dogs (Lambert et al., 2019). Similarly, a statistical analysis of stated reasons for multi-year post-adoption returns to a shelter found that behavioral issues were the key reason for return for both dogs and cats (Powell et al., 2021).

While numerous researchers have commented upon the importance of behavioral support, including dog obedience classes and guidance on behavioral issues, the cost of such services may be a deterrent to lower income pet caretakers. Even for higher income pet owners who may have purchased pet health insurance, behavioral issues are usually excluded from coverage. (See, e.g., Nationwide/National Casualty Company Major Medical Plan Policy, 2021; see also, VPI Pet Wellness Rider Benefit Schedule, 2021).

It is also apparent that behavioral issues may arise due to the interactions between animals in a multi-pet household, and that these dynamics may lead to surrender of one of the pets. The 12-shelter multi-region study found that where “households included dogs, the relative proportion of behavioral relinquishments was lowest when no other companion animals – dogs or cats – lived in the household and highest when at least one other dog or cat was present.” (Salman et al., 2000, p. 97). Moreover, when the resident animal population changed, it was observed that “[t]he addition of a dog or cat to the household in the year preceding the study was also significantly associated with relinquishment category for both dogs and cats.” (Salman et al., 2000, p. 98).

Although the interactions between or among pets in a household are clearly important, the dispositive interaction is that between the pet and his or her human caretaker. Not surprisingly, it has been noted that “[a]nimal behavior problems often have detrimental effects on the relationships between pets and their owners and, consequently, function as important determinants in relinquishment decisions [citations omitted].” (Salman et al., 2000, p. 103). Moreover, where behavioral modification or remediation would not be affordable, a pet owner is more likely to simply surrender the animal.

3. Pet healthcare needs and expenses are often associated with animal surrender.

The medical needs of a pet, and the expenses associated with veterinary care, are an important reason given for animal surrender. For example, a recent study analyzing overall intakes as well as post-adoption returns to a shelter in Austin, Texas, found that the animal’s medical needs were given as a relinquishment reason for 15.5% of dogs and 27% of cats (Hawes et al., 2020). Further, it is not unusual for pet owners to bring ill or elderly pets to shelters for euthanasia, instead of taking the pet to a veterinarian (Scarlett et al., 2002).

An owner’s failure to provide a pet with veterinary care may result in animal health issues that lead to surrender. It is possible that a pet’s healthcare needs were not met due

to an owner's inattention or neglect. For dogs, it has been observed that "[l]ack of veterinary care was associated with a markedly increased risk of relinquishment." (Patronek, 1996b, p. 575). Similarly, it was found that cats that had never visited a veterinarian had an increased risk of relinquishment (Patronek et al., 1996a). Receiving regular veterinary care and having a relationship with veterinary professionals would offer opportunities to receive advice on animal health and behavior and to benefit from identification and treatment of potential problems (Scarlett et al., 2002).

Barriers to receiving veterinary care include cost and accessibility, as well as issues of communication and culture, along with lack of pet caretaker education. A recent review of the literature addressing veterinary care for underserved communities identified the conflict between charging for professional services and the burden of paying for those services, as well as the absence of veterinary offices in underserved areas and the challenge for pet owners to take their pets on public transportation to receive care. "Veterinarian-client communication and relationships are the foundation for understanding the basis of people's decisions about caring for their animals." (LaVallee et al., 2017, p. 390).

Even a conscientious pet caretaker may be unable to afford veterinary expenses. Analyses of consumer expenditures for pet-related goods and services, including veterinary care, have shown correlations with income, as well as with various demographic factors. Indeed, not only income considerations but also the lack of diversity in the veterinary profession may impact pet owners' use of veterinary services (Wolf et al., 2008).

Broad Public Sector and Private Sector Support of Initiatives to Decrease Incidence of Pet Relinquishment

Many of the reasons for surrendering an animal that have been identified, and especially the three issues addressed above which are related to human housing, animal behavior, and pet healthcare expenses, have a potential connection with financial constraints. Thus, if support were available that could offset some of the costs associated with pet ownership and the management of companion animal needs, it is likely that the incidence of pet relinquishment could be successfully reduced. Engagement in providing such support by both the public and the private sector, as well as at a broader community level reaching beyond individual animal shelters, may offer options for impactful benefits to companion animals, their guardians, their neighborhoods, and also to the allied veterinary professions.

As discussed above, the lives of people and their companion animals are closely linked. Circumstances beyond their respective control often lead to results negatively affecting the welfare of both people and their pets, including surrender of pets to animal shelters. Both the public and the private sector have roles to play in helping to keep people and pets together.

Public Sector Motivation

Public policy considerations, informed by both public health goals and community development objectives, suggest that carefully conceived initiatives could result in welfare improvements for both humans and companion animals. Motivations for facilitating such improvements can be readily identified at the public sector level. Appropriate assistance, directly or indirectly, and/or the provision of key support services may offer an opportunity to partially subsidize the costs incurred by pet parents, thereby reducing the rate of abandonment or surrender.

Studies have shown a positive association between pet ownership and human physical and mental health (Levine et al., 2013; Friedmann et al., 2020; Kogan et al., 2021). From the perspective of public policy and motivation for public sector action, the OneHealth perspective offers a focus on the benefits to humans and their pets when mutually health-promoting activities are shared. There are indisputably health benefits of dog walking for humans and also for dogs, but there is also a need for an environment that facilitates the activity (Christian et al., 2016). Various strategies, both at the community and the national level, could promote dog walking as a matter of public health policy. In the urban context, some planners have adopted a OneHealth focus, linking local governmental authority to set policies on pets with human health promotion objectives (Rock et al., 2015).

Indeed, in the sphere of public health concerns relating specifically to the geriatric subpopulation, studies have seen both better cognitive status and physical functioning among older adults who had pets (Friedmann et al., 2020). Having a dog, in particular, has resulted in an increase in physical activity among the elderly (Rijken & van Beek, 2011). However, despite the apparent advantages of pet ownership for older adults, there may be challenges for this group, as for other populations, in affording the expenses of pet care. Indeed, a recent study found that, although its participants were generally affluent, a few did indicate that they had failed to meet some of their own needs due to their pets' needs (Friedmann et al., 2020).

Public Sector Action

On the public sector side, limited financial-related incentives, as well as pet-friendly housing regulations and accessible dog parks and walking trails, could offer additional opportunities to support responsible pet ownership as a means of achieving public policy goals. Since most laws relating to pets are imposed at the state, county and municipal levels, local government regulations addressing pet housing restrictions could present options to balance the interests and needs of landlords/homeowners' associations and those of residents whose households include pets. Admittedly, competing political and interest group agendas would present challenges.

At the federal or state level, tax deductions or credits for certain expenses associated with, e.g., recognized Emotional Support Animals could be allowed in furtherance of public mental health goals. Under current federal tax law, deductions on individual tax

returns are allowed only for service animals such as guide dogs or others trained to assist a person with physical disabilities (IRS Pub. 502). Indeed, unusual federal legislation was proposed in 2009, during the financial crisis, that would have allowed deductions for “qualified pet expenses”, including veterinary care (McCotter, 2009). However, the “HAPPY” (“Humanity and Pets Partnered Through the Years”) legislative bill was unrealistic and never progressed beyond referral to committee.

In addition to the political challenges of passing any pet-friendly legislation, tax deductibility would have a regressive effect in that it would not benefit most pet owners unless they itemized deductions, and this is not usually done by taxpayers at lower income levels. Tax credits have the potential to be more impactful but would be impossible to regulate (Social Security numbers could not be issued to pets). One possible avenue could be providing pet guardians with vouchers to use at points of purchase restricted to pet care, e.g., for veterinary services, not for transferable goods.

Private Sector Motivation

In addition to public sector policy goals as a motivator, there is also clear evidence of private sector motivation to improve animal welfare. While motivated by the quest for corporate profits, today’s businesses recognize that their customers’ buying decisions are increasingly influenced by perceptions of corporate responsibility. The private sector has already provided examples of business strategies designed to enhance companies’ reputations in the eyes of consumers by taking action to improve animal welfare. Corporations inspired to demonstrate their commitment to social and environmental sustainability, including animal welfare issues, are not limited to those in the burgeoning pet industry.

Private Sector Action

Many businesses do assist efforts to care for pets. For example, Subaru, an automobile manufacturer, sponsors and publicizes its “Make A Dog’s Day” annual event to encourage adoption of special needs animals. Other Subaru commercials identify the company as the top corporate donor to the ASPCA. Bissell, a manufacturer of vacuum cleaners and other cleaning devices, created the Bissell Pet Foundation, including sponsorship of an annual “Empty the Shelters” nationwide event and grantmaking through its “Partners for Pets” program. Within the pet products sector, Hill’s, a large pet food manufacturer, has engaged in numerous campaigns to assist animal shelters by providing food and to promote “Second Chance” adoption initiatives. Moreover, as will be discussed herein with respect to pet healthcare, pet products retailers and corporate veterinary services providers support low cost community veterinary clinics.

Private sector insurers and employers could utilize their existing wellness incentive frameworks to encourage healthy behaviors in their insureds and employees that would encourage pet parenting. For example, wellness incentive programs, similar to tracking health-positive activities such as gym attendance and walking, could be extended to include activities with companion animals. Indeed, already within the insurance industry,

Nationwide, whose portfolio includes a pet insurance company, has partnered for publicity with Cigna Medicare Advantage plans about health benefits of dogwalking exercise (Nationwide, 2021). In addition, human health insurance premium discounts could be offered as another incentive to engage in health positive behaviors.

An animal's veterinary care expenses are a potential financial challenge for any pet parent. Although approximately 70% of households in the United States have a pet, close to three-quarters of pet owners do not have pet health insurance (Insurance Industry Institute, n.d.). Even if a pet is insured, premiums for pet health insurance may be high and generally relate to a pet's age, and coverage may be limited and/or subject to a specified diagnosis allowance. Absent personal financial resources and/or comprehensive pet medical insurance, pet owners often need assistance to keep their companion animals healthy.

On the pet insurance side, given the high incidence of pet surrender due to behavioral issues, pet health insurers could contribute to reducing relinquishment rates by allowing policy coverage for pet behavioral therapies and treatments. At present, pet health insurance policies generally exclude or limit coverage for behavioral issues. *See, e.g.*, Nationwide/National Casualty Company Major Medical Plan Policy (2021) at Paragraph 6.T., excluding any payment for “[d]iagnosis, treatment, training, or therapy for behavioral problems.” *See also*, VPI Pet Wellness Rider Benefit Schedule (2021) allowance of \$30.00 per annual policy term for “behavioral exam and/or treatment”, but excluding obedience training.

Existing Solutions at the Animal Shelter Level: Pre-Adoption and Post-Adoption Support to Prevent Surrenders

As the contact point of first instance for many people who adopt and/or surrender pets, animal shelters are on the front line, confronted daily with arrivals and departures of animals. Shelter staff share the bright days and the sad days in the journeys of companion animals and their future and/or former human families.

Many individual shelters have shown compassion and creativity through their offerings of both pre- and post-adoption support to reduce the rates of animal relinquishments and returns. Additional support services could also be appropriate for offering at the shelter level. Since most shelters have staff identified as adoption coordinator counselors, designation of “surrender specialist” counselors would facilitate consistency of support to address surrender-triggering issues (DePaul communication, 9/28/21). Services could also be made available with respect to pets who were not adopted from the shelter.

Areas that have been suggested for intervention to help people keep their pets include: free or low cost veterinary care; free or low cost training or behavioral assistance; access to pet-friendly housing; free or low cost spay/neuter services; free or low cost pet food; free or low cost temporary pet care or boarding; and assistance with paying pet deposits for housing (Weiss et al., 2015).

In connection with these multiple recommended intervention needs, shelters across the country have demonstrated various approaches to developing programs and support services. While provision of spay/neuter services is generally widespread, the following are examples of existing additional solutions in response to three key reasons for pet surrender.

1. Housing-related challenges.

Although shelters may include housing-related information on their websites or in other materials, more direct assistance with advice regarding landlords and housing restrictions could be facilitated by a shelter “housing mediator” (DePaul communication, 9/28/21). Central Philadelphia’s small Morris Animal Refuge recognizes the impact of housing restrictions and obstacles posed by moving. “[W]e can sometimes assist with navigating rental policies on having animals or finding pet-friendly housing.” (Morris Animal Refuge, n.d.)

New Jersey’s multi-campus St. Hubert’s Animal Welfare Center has a “Safe Haven Program” which enables pet owners in crisis (e.g., domestic violence or short-term homelessness) to entrust their companion animals to St. Hubert’s on a temporary basis so that the people do not remain in a dangerous setting due to concern about their pets (St. Hubert’s Animal Welfare Center, n.d.).

Similarly, in the Midwest, Humane Indiana’s shelter and related services include an emergency crisis foster program, offering temporary foster homes to pets whose owners are in difficult short-term situations, “trying desperately NOT to lose or surrender their pets.” (Humane Indiana, n.d.).

In Los Angeles, and in the face of affordable housing shortage challenges, a multi-faceted pilot intervention effort for low income pet parents has been created by Downtown Dog Rescue (DDR) (Weiss et al., 2014). This organization addresses community needs through comprehensive and targeted offerings, including Shelter Intervention Program (SIP), Pet Resource Center on Skid Row (PRC), Pet Support Space in South LA (PSS), and clinics. SIP was “founded on the idea that pet overpopulation and euthanasia in shelters is not a pet problem; it’s a poverty problem. With the homelessness and affordable housing crisis in Los Angeles growing, many residents believe pet relinquishment is their only option. Others may not be able to afford the reclaim fee, and some simply do not know help is available. SIP works to provide resources that allow people and pets to stay together, thereby, reducing shelter intake numbers.” (Downtown Dog Rescue, n.d.).

2. Animal behavioral issues.

Continuing support to pet parents can assist them in addressing animal behavioral issues which are an important target area for intervening pre-surrender (Weiss et al. 2014). “[A]n intervention strategy for educating owners and training dogs in a shelter environment may contribute to the reduction of relinquishment.” (Salman et al., 2000, p. 104). Options can include both in-shelter and community outreach programs for training.

With respect to behavioral concerns, Austin Pets Alive! (APA) in Texas offers both pre-adoption and post-adoption support (Hawes et al., 2020). To address animal behavioral issues, APA has a dog behavior program and also provides separate behavioral contact email addresses for dogs and for cats. “We offer lifetime behavior support for all of our adopted animals and would love to work with you to keep your pet in your home!” (Austin Pets Alive!, n.d.).

St. Hubert’s Animal Welfare Center in New Jersey, with several locations, offers a wide range of programs, including a behavioral training school (with private at-home sessions for felines). Although there is a fee for training sessions, scholarships are available for those unable to afford the classes (St. Hubert’s Animal Welfare Center, n.d.).

3. Pet healthcare needs.

In addition to spay/neuter programs, many pet parents need free or low cost animal health care. Access to affordable veterinary care has been identified as helping people keep their pets (Weiss et al., 2015). Through shelter-associated clinics and partners, discounted veterinary services, especially for vaccinations and wellness visits, would offer a key benefit to facilitate keeping an animal.

For example, Humane Indiana’s Estelle Marcus Clinic, established through the private generosity of Estelle Marcus, provides low cost health and wellness services to underserved communities in Northwest Indiana, including spay/neuter procedures, vaccinations, microchipping and preventative care. This is not a full-service clinic, and pet owners must qualify for financial assistance (Humane Indiana, n.d.).

At Downtown Dog Rescue (DDR) in Los Angeles, the services provided to pet parents by its Shelter Intervention Program (SIP) include financial assistance with dog licensing and fines, as well as veterinary care and pet food. According to DDR’s website page for SIP, in the first quarter of 2020, 74% of the service inquiries related to pet medical care (Downtown Dog Rescue, n.d.).

Existing Solutions and Support for Animal Healthcare at the Community Level

Successful programs do exist to bring veterinary care into communities via outreach clinics, often in partnership with a local school of veterinary medicine. For example, the University of Pennsylvania’s shelter medicine program and its veterinary students bring animal healthcare services into urban neighborhoods in Philadelphia through a medical/surgical mobile trailer, as well as offering spay/neuter and wellness care in conjunction with the “Partners for Life” program of the Humane Society of the United States (HSUS) (Penn Vet, n.d.).

In addition, at the community initiatives level, these programs may partner with local public health departments to offer periodic neighborhood pet health events such as vaccination weekends and other “Pop Up” occasions for OneHealth information

dissemination, quick health screenings, pet-related giveaways, and community-building, perhaps in tandem with human wellness community events. For example, on the East Coast, at Penn Vet, community partnerships include educational outreach in programs for local middle and high school students, as well as participation in interdisciplinary initiatives bringing together advanced allied health and social services students to provide services to underserved communities in Philadelphia (Penn Vet, n.d.). On the West Coast, at the University of California Davis, following the OneHealth theme, veterinary students and their counterparts in the medical school join forces to provide veterinary and medical services to the underserved agricultural community of Knights Landing, California (UC Davis Veterinary Medicine, 2020).

Also in California, a variety of community private and public programs exist to meet emergency veterinary needs, including during natural disasters and other crisis situations. The Red Rover organization's volunteers offer a range of services, including emergency pet sheltering for victims of domestic violence, training and educational programs, as well as financial assistance for individual urgent pet healthcare expenses (Red Rover, n.d.). Many California counties have established volunteer Community Animal Response Teams (CART) to facilitate planning and response to safeguard animals in the event of a disaster (See, e.g., Napa CART, n.d.). At the professional veterinary level, the California Veterinary Medical Reserve Corps (CAVMRC) of the California Veterinary Medical Association is a unit of the national Medical Reserve Corps. The mission of CAVMRC "is to preserve animal well-being and protect the public health and welfare by providing emergency veterinary medical care and expertise during the response phase of declared states of emergency." (California Veterinary Medical Association, n.d.).

Discussion: Toward A New Framework for Pet Healthcare Services at the Community Level

Potential Solutions and Support at the Community Level

While public sector financial benefits such as tax credits are unlikely to be feasible due to political constraints, local government support is a possible option, such as measures relating to housing restrictions affecting pets and urban space planning to include dog parks and walking trails. Initiatives related to health insurance, whether for people or for pets, are potentially beneficial to those who are insured but would exclude many segments of the population. Realistically, however, private sector and other non-governmental incentives and subsidies at the local level are a more likely source of potential financial assistance and related support to facilitate responsible pet ownership with a wider impact.

Instead of support for pet parents being dependent upon the resources and services offered by the shelter where they may have adopted their pet, broader community initiatives going beyond the level of individual shelters could promote pet-friendly neighborhoods and community engagement. Such initiatives would also benefit pets and their guardians who had not adopted them from an animal shelter. This approach would

make a “macro-impact” in the sense that it would not be limited to one particular shelter, but also a “micro-impact” by maintaining a focus on a particular community or neighborhood. Recommended direct community interventions of importance to combat pet relinquishment risks would include veterinary visits and behavioral training, both of which are also likely to be associated with human-pet bonding or attachment (Patronek et al., 1996b).

Several related areas for community initiatives will be discussed briefly before turning to an exploration of community-based companion animal healthcare alternatives.

1. Housing-related assistance.

Since human housing issues are a frequent reason for pet surrender, housing-related intervention may be feasible at the local level to advise pet parents on negotiations with landlords and address pet housing restrictions. Funding to assist with pet deposits required by housing leases would be cost-effective relative to the cost of maintaining an animal in a shelter. During the mortgage foreclosure crisis when homeowners with pets were forced to vacate their homes, nonprofits helped pet owners facing foreclosure (Nowicki, 2011). Further, the availability of safe emergency housing for pets during domestic and similar crises would also relieve their owners. Examples of ongoing successful efforts relating to housing issues have been mentioned in the foregoing sections of this paper.

2. Animal behavioral training.

Another key trigger for pet relinquishment is animal behavior. Some examples of existing successful programs relating to behavioral issues have been discussed in the preceding sections of this paper. While dog obedience classes and other behavioral training are available to those who can afford them, many pet parents are unable to pay for such services. Behavioral training could be offered at neighborhood community centers on a regular and predictable schedule, e.g., every Saturday morning for one month, repeated seasonally, free to participants or at nominal charge. For cats, cost-free information and discussion groups for behavioral issues, e.g., litterbox problems, could be held on a similar schedule.

3. Direct assistance for pet food and supplies.

Many shelters do offer food to adopters with financial problems. However, similar to community food banks for human residents, and perhaps in conjunction with them, providing free or largely subsidized pet food and necessary supplies would assist pet parents unable to meet these expenses. Indeed, pet food bank programs grew during the financial crisis in the 2008-2009 period (Nowicki, 2011).

Another option for financial assistance would be providing financially needy pet owners with vouchers to be used for pet-related goods and services at discounted prices. In order to promote community economic development, such vouchers could be designated for use at local pet retailers for cross-support of neighborhood businesses. With OneHealth

goals for human-animal physical activity in mind, a pet “gift-bag” could include a renewable pass to a nearby dog park.

4. Special services for senior citizens.

Studies have reflected senior citizens’ attachment to their pets and enjoyment of companionship (Netting & Wilson, 1987). Since mobility challenges may compound financial limitations, support and practical assistance for senior citizens (who may also have senior pets) is important. Community initiatives could match elderly pet owners with responsible neighbors to assist with such activities as dogwalking, transportation to veterinarian visits, and delivery of pet supplies to seniors’ homes where needed. Organization of such services could be a possible means to create employment and training opportunities for neighborhood youth interested in animal care. Moreover, given the health benefits to the elderly of pet companionship and dogwalking exercise, adoption or fostering of “geriatric” animals (“Seniors Caring for Seniors”) could be promoted along with the offer of practical and financial assistance.

5. Veterinary care.

Since inability to meet animal healthcare needs is another reason behind pet surrender, providing veterinary care is a critical service. “Community-based veterinary medicine initiatives may be a way to address the lack of access to veterinary care among underserved communities.” (LaVallee et al., 2017, p. 1). Successful programs do exist to bring that care into communities via outreach clinics, often in partnership with a local school of veterinary medicine. For example, the University of Pennsylvania’s shelter medicine program and its veterinary students bring animal healthcare services into urban neighborhoods in Philadelphia through a medical/surgical mobile trailer, as well as offering spay/neuter and wellness care in conjunction with the “Partners for Life” program of the Humane Society of the United States (HSUS) (Penn Vet, n.d.).

In addition, at the community initiatives level, these programs may partner with local public health departments to offer periodic neighborhood pet health events such as vaccination weekends and other “Pop Up” occasions for OneHealth information dissemination, quick health screenings, pet-related giveaways, and community-building, perhaps in tandem with human wellness community events. For example, on the East Coast, at Penn Vet, community partnerships include educational outreach in programs for local middle and high school students, as well as participation in interdisciplinary initiatives bringing together advanced allied health and social services students to provide services to underserved communities in Philadelphia (Penn Vet, n.d.). On the West Coast, at the University of California Davis, following the OneHealth theme, veterinary students and their counterparts in the medical school join forces to provide veterinary and medical services to the underserved agricultural community of Knights Landing, California (UC Davis Veterinary Medicine, 2020).

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Moving Forward With A New Framework for Pet Healthcare Services at the Local Level

The varied examples mentioned above relating to responses to communities' needs for veterinary care demonstrate the critical importance of making pet healthcare both available and accessible. Engagement in community initiatives by the veterinary and allied animal healthcare professions, not limited to DVM's/VMD's, is imperative to provide a trusted animal welfare perspective and to enhance residents' ability to meet animals' healthcare needs and to avoid surrendering their pets. Veterinarians may be called upon for counseling on relinquishment decisions (Coe et al., 2014), as well as in collaborating to identify relinquishment solutions (Lambert et al., 2019).

In addition to medical care ranging from animal wellness examinations, vaccinations and spay/neuter procedures, to diagnosis and treatment of diseases and injuries, veterinarians and their teams have a key role to play in educating clients and promoting development of strong human-animal bonds. Focus areas for education include animal behavior and training, animal husbandry advice, and spay/neuter information. Staff members are also important in providing client service (Scarlett et al., 2002).

When veterinary care is not accessible, "[i]n many instances, some of these pets are relinquished to the animal sheltering system, thus breaking up the family and adding to the burden of the animal sheltering system." (Wilzius et al., 2018, p. 1). Further, as veterinary care costs have steadily risen, "[a]nimal welfare organizations began seeing more pets with deferred care or no care being relinquished with treatable medical conditions." (Wilzius et al., 2018, p. 80).

Barriers to Receiving Companion Animal Healthcare Services

A systematic review of literature addressing issues of access to veterinary care in underserved communities discusses the concept of "community-based veterinary medicine". The reviewed literature identified five key barriers to care: cost, accessibility, veterinarian-client communication/relationships, cultural/language barriers, and lack of

client education (LaVallee et al., 2017). Each of these barriers must be overcome in order to ensure access to companion animal healthcare.

Free or low cost animal healthcare can help people keep their pets. A recent study analyzed two North Carolina community veterinary medicine programs, one mobile clinic and one affordable pet care clinic. At both, in light of the communities being served, a Spanish-speaking staff member was present. The authors noted barrier issues of accessibility and transportation to veterinary care, as well as the importance of communication and cultural competence (Kogan et al., 2021). In many instances, pet owners may be reliant on public transportation that does not permit pets (LaVallee et al., 2017).

Qualtrics survey questions directed to these North Carolina pet owners elicited additional information relating to the effect of the provided healthcare on pet retention. The questions included asking “how important the received veterinary care was in helping them keep their pet using a 3-point scale (very important, moderately important, and not important.” (Kogan et al., 2021, p. 2). For both clinic programs, “the majority of owners reported that the care they received was very important...” (p. 3) (both clinics’ respondents had “very important” at greater than 85%). More than half of pet owners visiting the mobile clinic (and less than half for the other clinic) indicated their pet had never received veterinary care (at 3). “Assisting these families that struggle with financial constraints that prevent them from accessing veterinary care could help them keep their pets at home.” (p. 4). “[O]ver 85% reported trusting the veterinary team and feeling the community service was important in helping them keep their pet.” (Kogan et al., 2021, p. 6).

Since communication and cultural differences are among the key areas identified as barriers to accessing healthcare for pets, especially in non-dominant language speaking communities, outreach and staffing must utilize available bilingual skills and cross-cultural competency. It is imperative that services be “provided in a culturally and linguistically relevant manner.” (Poss & Everett, 2006, p. 72).

For example, a bilingually-staffed mobile spay/neuter clinic van has been used to bring services into several predominantly Spanish-speaking low income communities near the U.S./Mexico border. This mobile clinic included a veterinarian, a Spanish-speaking veterinary technician, and a Spanish-speaking animal control officer, as well as volunteers of whom one was bilingual. Spanish media was used extensively to publicize the incoming service in advance, and registration forms and educational materials were bilingual. Community participation exceeded expectations. “For the majority of animals sterilized on the clinic, this was their first encounter with veterinary care. Many guardians told the volunteers that they could not afford to take their animals to a veterinarian.” (Poss & Everett, 2006, p. 76-77).

Lack of diversity in veterinarian demographics is also a factor with respect to underserved communities (LaVallee et al., 2017). Diversity is needed in the veterinary profession to promote use of veterinary services for companion animals across various demographic lines (Wolf et al., 2008).

Moreover, much of the research on care access issues identified via the systematic literature review method was conducted outside the USA, suggesting international models of access to care should be explored (LaVallee et al., 2017). Recurring common themes surrounding barriers to access arise worldwide. For example, the distance and travel required to reach veterinary services can be an access problem for pet owners in any country (Minnaar & Krecek, 2001) (surveying dog owners in two resource-limited South African communities). Other important considerations for planning care throughout the world include the language(s) spoken within the community (McCrinkle et al., 1997) (investigation of animal welfare needs in low-income multi-lingual urban community in Soweto, South Africa).

The 2018 report of the Access to Veterinary Care Coalition observed: “Before solving an access to veterinary care situation, an actual epidemiological appreciation for the community’s needs must be understood.” (Wiltzius et al., 2018, p. 88).] The specific steps for proactive intervention appropriate for a particular community would require analysis of the animal welfare situation within the community in question. The veterinary team would need to be familiar with the local animal nutrition and disease prevalence along with the low income status of the human residents (McCrinkle, 1998).

Structuring In-Community Veterinary Care Services

With the goal of providing affordable pet healthcare within local communities, a not-for-profit organization for delivery of veterinary services could be created. In addition to its nonprofit corporate structure, this organization would apply for recognition as a tax-exempt entity eligible to solicit and receive deductible charitable contributions. Veterinary practices could join this organization, following a nonprofit business model. Under the umbrella of such an organization, low cost or sliding scale veterinary care would be offered through a neighborhood-based network of veterinary professional teams. Moreover, in some settings, human social services and pet healthcare services could be made available at the same site.

An example of a not-for-profit veterinary services organization is Emancipets, established in 1999 in Texas where it now has clinics in multiple locations. The organization, whose stated mission is to make veterinary care affordable and accessible to everyone, is recognized as tax-exempt by the IRS and its 501(c)(3) status enables it to receive tax-deductible contributions. Emancipets’ website states that its clinics do not treat sick or injured animals, but that they provide routine wellness care, vaccinations, spay/neuter, microchipping, etc. The first non-Texas clinic opened in 2017 in Northeast Philadelphia where it provides low cost wellness services; spay-neuter services were temporarily paused for new appointments as of February 2022. Private sector corporate support for the Philadelphia branch opening was received from PetSmart Charities. Due to the organization’s nonprofit status, staff members with student loans (such as many veterinarians) may be eligible for the national Public Service Loan Forgiveness program (Emancipets, n.d.).

Another not-for-profit organization providing veterinary services in the Tampa Bay, Florida, area is Vets4Pets. Preventive and basic care provided through the Vets4Pets clinic is limited to financially eligible pet owners referred to the clinic by charities, approved animal rescue groups or member veterinary hospitals (Hillsborough Animal Health Foundation, n.d.). This clinic is owned and operated by the Hillsborough Animal Health Foundation, which was founded in 1986 by a group of area veterinarians to promote pet health and responsible pet ownership. The Foundation is supported by more than 40 veterinary hospitals in Hillsborough County, Florida (Hillsborough Animal Health Foundation, n.d.).

A different approach is offered by a partnership between an animal shelter and a for-profit corporate veterinary services provider. With support from VCA Animal Hospitals, the Atlanta Humane Society is opening a new community veterinary clinic in late spring 2022. Named “Remedy: Your Community Vet”, the clinic will serve financially needy pet owners in underserved areas. According to the press release, “VCA’s support includes critical funds to help underwrite necessary preventive care such as wellness visits and heartworm prevention, as well as services that are most likely to cause owners to surrender pets to shelters, including sick pet care, heartworm treatment, and surgery.” VCA will also provide professional support from its veterinary teams. VCA’s president stated that “[a]ny young person deserves to see and know the joy that comes from taking care of animals. With this local care for families and pets in need comes the opportunity to build the next generation of aspiring veterinarians and technicians.” The announcement also promised that this “veterinary solution focuses on providing affordable care and using technology to create an ultra-efficient, sustainable, and high-volume model. The model is scalable and replicable, providing the opportunity to address the veterinary needs of other underserved communities in the future.” (Atlanta Humane Society, 2022).

In Sacramento, California, veterinarians, veterinary and undergraduate students at the University of California Davis serve in the city’s Mercer Clinic for the Pets of the Homeless, a non-profit organization providing free medical care for companion animals of homeless individuals (UC Davis Veterinary Medicine, 2020). The services offered range from preventative care and spay/neuter procedures to limited dental cleanings and other diagnostic and surgical procedures, sometimes referred with budgetary support to local full-time veterinary practices. This clinic, open one day each month and housed in its own permanent structure, receives significant financial support from corporate and industry donors, as well as from individuals and non-governmental organizations (Mercer Clinic, n.d.).

An alternative not-for-profit structural model might be found within an existing community foundation. For example, in Northeastern Pennsylvania, The Scranton Area Community Foundation established an animal welfare project initiative in 2019. “The NEPA Animal Welfare Collaborative is a collective of animal shelters, rescues, advocates, and sanctuaries in the region that are interested in coming together to advance

various causes in animal welfare and to increase the collective resources available to these agencies. Activities of the collaborative include education, professional development, fundraising and other practices that move the goals of the collaborative forward.” (Scranton Area Community Foundation, n.d.). The Collaborative’s strategic priorities include to “[e]stablish Veterinary Coalition and/or supportive veterinary services for rescues, shelters and sanctuaries.” (NEPA Animal Welfare Collaborative, n.d.). Although the NEPA Animal Welfare Collaborative’s contemplated activities within the veterinary services space do not appear to encompass a plan to offer care for companion animals of private individuals, a community foundation would offer a funding vehicle for support from private donors.

These various options for companion animal healthcare, however, do not originate within the underserved community or neighborhood in which a particular pet resides. What if animal healthcare services were actually embedded within the community instead of brought into the community?

Proposal for A Community-Embedded Animal Health Model

The various examples of veterinary community medicine models described above differ from the concept of a locally embedded network of veterinary healthcare providers offering comprehensive services beyond wellness care and spay-neuter procedures. The model proposed herein contemplates a services “pyramid” structure, moving upward from neighborhood pet healthcare “hubs” for wellness and preventive care, to local clinics for treatment of minor illness and injury, through community hospitals for more comprehensive care, and finally to an affiliated specialized veterinary facility for the most demanding cases.

Mindful of the suggestion that international models of access to care should be explored (LaVallee et al., 2017), this proposed model draws inspiration from a structure proposed for veterinary community medicine in South Africa. That concept reflected an organizational design moving downward from a central regional referral hospital to several district hospitals, each of which would support several “peripheral clinics” forming the base of the “pyramid” (“comprehensive veterinary health centres”) (Hohn & Williams, 1997, p. 33).

Similarly, in order to maximize the efficiency and cost-effectiveness of animal healthcare services delivery, a staffing “pyramid” structure would be designed. Anchoring the base of this pyramid would be a cadre of local community animal health workers. These workers would be familiar and trusted neighbors serving as a bridge to veterinary service professionals (Hohn & Williams, 1997, p. 33-34). “The implementation of services following the principles outlined here would have numerous advantages, including: cost-efficiency in the delivery of veterinary services to the community; high exposure to and credibility with the community owing to active community involvement; and improvement in the level of basic animal care. Primary health care has made a great difference to the lives of many people in the third world; a similar approach could also have considerable benefits in the veterinary field.” (p. 34).

Moving up the skills pyramid, junior veterinary technicians and more senior veterinary nurses would be utilized. Next and ideally, evolution within the allied veterinary professions would permit the creation of midlevel practitioner roles analogous to physician’s assistants or nurse practitioners in human medicine (Kogan & Stewart, 2009). Due to national policies and states’ regulatory requirements, all medical care would need to be provided under the direction and supervision of a licensed veterinarian whose place would occupy the top level of the pyramid structure.

Since communication and cultural differences are among the key areas identified as barriers to accessing healthcare for pets, especially in non-dominant language speaking communities, locally-based outreach and staffing must utilize available bilingual skills and cross-cultural competency. It is imperative that services be “provided in a culturally and linguistically relevant manner.” (Poss & Everett, 2006, p. 72).

Community-Embedded Staffing Model



1. Community Animal Health Workers

As stated in the 2018 report of the Access to Veterinary Care Coalition, it is essential to build trust within the community being served by a program, so programs “need to ‘meet’ the owners where they are and to foster relationships that eventually lead to trust. One way to build trust is to identify liaisons within the community to help **build bridges between community members and the veterinary community.**” (Wiltzius et al., 2018, p. 39) (emphasis supplied).

Key to the “pyramid” model proposed here is the development of a cadre of community members, along the lines of community or village health workers deployed in local public health outreach globally, to build relationships with potentially hesitant pet parents within their local community. “Village health workers are auxiliary workers drawn from the community who act as assistants to veterinarians and nurses who run the peripheral clinics...forming an important bridge between the veterinary service and the community.” (Hohn & Williams, 1997, p. 33).

Training for the new community animal health workers could be provided in partnership with local vocational-technical schools and/or community colleges. The community animal health workers would not be trained or utilized to provide hands-on veterinary medical care to animals. This cadre would be responsible for grassroots educational information dissemination within the community, as well as promoting animal health and facilitating access to veterinary care, as community health workers do for human health in many low and middle income countries (Kane et al., 2016).

Indeed, many veterinary professionals responding to surveys conducted by the Access to Veterinary Care Coalition raised the theme of education as a strategy related to access: “Education for pet owners...should begin in elementary school and should include information about the responsibilities of being a pet owner and how to properly care for a pet. Educating the public from a young age about properly caring for a pet would allow people to make more informed decisions concerning pet ownership. Moreover, by offering education in schools, it would allow children of non-English-speaking parents to share information with their parents about proper pet care.” (Wiltzius et al., 2018, p. 33).

Addressing the barriers to veterinary care in underserved communities, the community animal health workers would be able to provide cultural and language competency, thereby facilitating communication between pet parents and the healthcare profession. In many neighborhoods, communication needs in languages other than English, including the ability to receive one-on-one support and community educational materials and outreach, would require that pet healthcare workers offer bilingual support (Poss & Everett, 2006).

The community workers would also be available to assist with home visits and with transportation to veterinary clinics, which often pose difficulties for senior citizens and other persons who may face mobility or transportation challenges. Moreover, having known neighbors overseeing many pet-related activities would foster a feeling of

accountability and positive peer pressure among pet parents who would not want to be viewed by their peers as irresponsible.

Engaging interested community members as a cadre of animal health workers would also offer an opportunity for future career options in the field of animal healthcare and animal welfare. An important goal of such engagement would be to increase demographic diversity within the allied veterinary professions (Chadderdon et al., 2014). Increasing bilingualism within the field would also help to overcome barriers to receiving care. The existing lack of diversity among veterinary care providers affects utilization of veterinary services (LaVallee et al., 2017).

2. From Veterinary Technicians to Veterinary Nurses

The American Veterinary Medical Association (AVMA) has encouraged enhanced utilization of the skills and training of veterinary technicians (Salois & Golab, 2021). “Employing more **veterinary technicians** would afford veterinarians the ability to focus more on the medical needs of the pet. This shift in job responsibilities would allow veterinarians to provide a higher volume of work that results in economic efficiencies.” (Wiltzius et al., 2018, p. 41) (emphasis supplied).

Veterinary technicians across the United States have a high job and occupational turnover rate which is “widely seen as a significant workforce challenge for the profession.” (Wogan, 2021, p. 1). Depending upon their training, education and the regulatory credentialing requirements in the state where they work, their titles and responsibilities vary. Predominantly female, veterinary technicians receive low pay and may also carry student debt from their colleges or training programs (Wooten, 2015). Although known in some workplaces as “veterinary nurses”, as they are in the United Kingdom (Kinnison et al., 2014), veterinary technicians in the United States generally face a lack of recognition and career advancement opportunities.

Anecdotally, the veterinary nursing supervisor in a Philadelphia corporate-owned feline practice observed that pet “owners do not associate certain things with a technician.” With eight years experience and certification, she noted that the attrition of seasoned veterinary technicians includes movement to other employment within fields related to animal health, as well as transitions into non-animal health areas such as human nursing education or radiology technician training (Morgan communication, 2/4/22).

The potential to upgrade from technician status to a position such as a “veterinary nurse practitioner”, offering increased responsibility, respect and compensation, could significantly increase retention rates within this occupation (Wogan, 2021). Indeed, at present, given the continuing Covid pandemic and the resulting multitude of other employment options, there is a critical shortage of veterinary technicians in many areas. Unfilled open positions in veterinary practices and hospitals are having a major negative impact upon facilities’ capacities to meet demand for veterinary services and to deliver care ranging from wellness examinations to emergency room and intensive care units.

Roles could evolve within veterinary care teams (Kinnison et al., 2014). For example, veterinary technicians could be utilized in certain settings and programs in a cost-effective manner that would enhance utilization of animal healthcare services among less-represented demographic groups and that could also contribute to the goal of increased diversity in the overall veterinary profession (Chadderdon et al., 2014). However, given current scope of practice requirements in each state which specify the tasks or procedures which a veterinary technician or nurse is authorized to perform, obstacles to optimal utilization do exist. For example, while a certified veterinary technician in Pennsylvania is permitted to administer a rabies vaccination to a cat, a veterinarian must be physically onsite (Morgan communication, 2/4/22).

Thus, on the proposed “pyramid” model for a local community-based animal healthcare model, veterinary technicians or “veterinary nurses” would play a key client-facing role. Having received training and acquired experience in the field, and demonstrating competency through certification, they would be equipped to provide hands-on care for companion animals in the community clinics, as well as supervision of the cadre of community animal health workers at the local animal health “hubs”. Given their credibility through credentials, they would also be able to provide education and advice on a range of pet-related topics. In the areas of preventive care and behavioral training, in particular, capable veterinary technicians would meet important needs of pet parents.

Here, too, communication and accessibility would be served by staff diversity and language and cultural competencies. The importance of multilingual capabilities was recognized by the Access to Veterinary Care Coalition in its 2018 report: “Furthermore, a successful program needs to be able to **offer services in the pet owner’s native language**. Being able to communicate effectively is essential for sharing complex information about pet health issues. Having a veterinarian or veterinary technician who is fluent in at least Spanish is optimal. However, it is important to ‘know’ the community because ‘there are more languages out there than just Spanish.’ At a minimum, all written information needs to be offered in Spanish.” (Wiltzius et al., 2018, p. 40) (emphasis supplied).

3. Midlevel Veterinary Professional Associates

Efficient and cost-effective provision of services in any industry requires that the most effective and highly trained staff be reserved for the most challenging responsibilities. “Routine work should not be carried out by an individual if somebody less qualified can do it as competently, *i.e.*, delegation down the skills pyramid....” (Hohn & Williams, 1997, p. 33). Recognizing that licensed expert veterinary doctors must be at the top of a pyramid staffing model, with community animal health workers occupying the lowest section and veterinary technicians/nurses situated at the next level, a tier between the technicians/nurses and the top-ranked veterinarian could be filled by a highly trained midlevel veterinary professional.

A midlevel healthcare provider could be partially analogous to the “paraveterinarians” utilized in other parts of the world, who have received some level of training in animal health and deliver services either as private healthcare workers or as public employees (Marshall & Sischo, 2010) (livestock owners in Nepal used easily accessible paraveterinary services). “Paravets play auxiliary role by assisting veterinarians in healthcare facilities, they also work independently by providing treatment and essential healthcare services.” (Kumar & Meena, 2021, p. 1) (livestock health delivery in India).

The need to effectively use paraprofessionals for animal health has long been recognized in the developing world. With respect to “paravets”, it has been observed that, especially in areas with a shortage of veterinarians, the use of “this middle level cadre veterinary staff could greatly increase the efficiency of animal health care,” reducing the cost and facilitating care for those who otherwise could not afford it (van Veen & de Haan, 1995, p. 237).

However, the midlevel veterinary professional role discussed here would, unlike the “paravets” described above, operate under a veterinarian’s supervision. Clear precedent exists in human medicine where the physician’s assistant role is now accepted and formally recognized. Discussions of applying this concept to veterinary medical practice were initiated in 2009 by Kogan and Stewart at Colorado State University who proposed the creation of a “Veterinary Professional Associate” (“VPA”) role (Kogan & Stewart, 2009). Emphasizing that physician’s assistants work under the direct supervision of a physician, the authors observed that VPA’s could bring economic efficiencies and fill capacity needs, particularly in shortage areas in veterinary medicine. They suggested, for example, that “the mission of VPAs could include an emphasis on serving underrepresented areas and populations” (p. 224).

Although resistance from some veterinarians and professional associations has been triggered by concerns that a midlevel veterinary professional provider would compete with fully credentialed veterinarians, the licensing and scope of practice requirements would pose significant obstacles to VPA’s circumventing requirements to be supervised by a veterinary doctor. Indeed, occupational forecasts have varied in identifying either projected shortages or projected surpluses of veterinarians. For example, while as of 2009 a shortage of veterinarians was projected, in 2013 an excess was predicted (Yagi & Fults, 2016). At present, there are insufficient veterinarians and allied staff to meet the demand for animal care in certain regions and in certain sectors, but there are also multiple veterinary workforce issues currently exacerbated as a result of the Covid pandemic (Salois & Golab, 2021).

Even if workforce capacity shortages subside in the post-Covid pandemic era, in addition to regional and sectoral maldistribution of veterinary capacity, having a midlevel professional associate on hand would enable more delegation of routine care and offer promising opportunities to make housecalls and other outreach initiatives. Even in private practice, adding a midlevel veterinary professional (“MLVP”) to the staff could “increase practice revenue by improving the efficiency of veterinarians by freeing them

from tasks that can be performed by MLVPs.” For example, they could perform wellness exams while the veterinarian concentrated on more complex cases (Yagi & Fults, 2016, p. 9). The American Veterinary Medical Association is researching the need, if any, for additional roles (Salois & Golab, 2021).

Moreover, in light of the career advancement limitations and consequent attrition in the ranks of veterinary technicians/nurses, the potential for transition into a VPA role would offer an attractive option to remain in the animal healthcare field. For students and others interested in entering the field but not prepared to undertake the lengthy and expensive veterinary school educational route, becoming a VPA would be a shorter and less costly path. Further, the availability of a VPA career could address the lack of diversity in the allied veterinary professions. However, although several universities’ veterinary schools are studying the initiation of master’s degree programs to educate future VPA’s, potentially interested veterinary technicians and others have expressed concern about incurring tuition expenses toward a role that remains undefined and lacks credentialing and regulatory assurances (Wogan, 2021).

Proponents of the VPA role have recognized its potential utility in addressing issues of cost as well as access to animal healthcare. Dr. Wayne Jensen at Colorado State University has observed the advantage for lowering costs of routine care: “We have priced ourselves out of access for many pet owners,” he said. “Aren’t we obligated to find a way to serve those animals?” (Wogan, 2021, p. 6). With respect to underserved communities, a veterinarian blogger commented: “Think about this for underserved areas of the U.S. where veterinarians are unlikely to invest in veterinary hospitals. There is the affordable availability of immediate veterinary care for simple problems (the most common in veterinary practice), or a referral for conditions requiring much more extensive veterinary intervention.” (Tudor, 2015). Similarly on the issue of access, another practicing veterinarian wrote: “Just as physician assistants and nurse practitioners deliver healthcare to patients in remote areas, a veterinary professional associate (VPA) could be mobilized to help underserved pets not currently receiving veterinary care.” (Wooten, 2015).

Conclusion

In light of the literature reviewed, together with anecdotal observations, it is apparent that there are multiple factors that may cause someone to surrender a companion animal. Among these factors, leading reasons include human housing issues, animal behavior problems, and pet healthcare needs and expenses. All three of these reasons may be associated with pet parents’ financial challenges.

Given the benefits of pet ownership to human health, public policy considerations should dictate public sector initiatives to facilitate successful pet parenting. The private sector, too, should be motivated by consumer expectations and corporate sustainability goals to support initiatives to keep pets in their homes. Currently, however, it is individual animal shelters and non-governmental organizations, including veterinary medical schools, that

are taking the lead in offering creative and compassionate solutions to address the challenges of pet parenting, especially in areas related to financial assistance.

Meeting pet healthcare needs, in particular, requires a comprehensive strategy. For financially needy pet owners living in areas underserved by veterinary care providers, many barriers often stand in the way of obtaining healthcare for their pets. Among those barriers are cost, accessibility, and communications obstacles. Under the communications umbrella arise issues relating to trust, language and cultural differences, education and demographic diversity.

The proposal in this paper for a community-embedded animal health model would address these multiple communications issues. Key to the proposed model is the development of a cadre of community animal health workers. Serving as liaisons, these community members would create a bridge between veterinary care professionals and local pet parents, taking advantage of shared linguistic and cultural competencies, building relationships, and facilitating education about pet care. The utilization of these community animal health workers would also complement the drive for diversification of the allied veterinary professions.

Similarly, encouraging evolution of the roles of veterinary technicians and nurses would reduce attrition and afford enhanced career opportunities for these important members of the animal healthcare team. From an efficiency perspective, for both economics and case volume, the increased utilization of these paraprofessionals is important. In the same vein, development of a new professional role akin to the physician's assistant in human medicine would offer even more efficiencies in providing wellness and preventive care, and it would enable the highly trained veterinary medical doctors to delegate routine work and to concentrate on meeting the most complex animal healthcare needs.

Finally, designing this community-embedded animal health model in the form of a "pyramid" for both services and staffing would allow for embedding multiple animal health workers within underserved neighborhoods and local communities. Skills-based staffing and general pet wellness services would be broadly dispersed at the lower levels of the "pyramid", while practitioners and services requiring increasing expertise would be available at its higher levels. Neighborhood pet health "hubs" would send clients to local clinics as needed, while those clinics would refer appropriate cases upwards to community hospitals or to a specialized veterinary facility.

This proposal for a "pyramid" staffing design, with a cadre of community animal health workers at its base, would provide a foundation for service teams compatible with diverse neighborhoods and cultures. Within this environment of community-embedded multi-level support for pet healthcare, I predict that companion animal welfare would improve and that the incidence of pet surrender due to financial-related challenges would decrease.

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