



# Business Models Used to Improve Access to Veterinary Care



**THE OHIO STATE UNIVERSITY**  
COLLEGE OF VETERINARY MEDICINE



# **BUSINESS MODELS USED TO IMPROVE ACCESS TO VETERINARY CARE**

By:

Rebecca Garabed

Macon Overcast

Virginia Behmer

Ellen Bryant

Kianelys Heredia

Amelia Jones

With Assistance from:

Jeanette O'Quin

Michelle Wisecup

The ASPCA Access to Care Team

## AUTHOR BIOGRAPHIES

**Rebecca Garabed, VMD, MPVM, PhD**, is a Professor in the Department of Veterinary Preventive Medicine in the College of Veterinary Medicine and Courtesy Faculty in the Division of Epidemiology in the College of Public Health at The Ohio State University. She directs the Disease Ecology and Computer Modeling Laboratory (DECML) and is the head of the Global Engagement Program at the College of Veterinary Medicine. Rebecca received her veterinary medical degree at the University of Pennsylvania and then pursued a masters' degree and PhD in epidemiology at the University of California, Davis. She was briefly an associate veterinarian at a small animal private practice and has participated in volunteer outreach clinics. She teaches courses in epidemiology and population medicine to veterinary students.

**Macon Overcast, DVM**, is a 2021 DVM graduate of The Ohio State University College of Veterinary Medicine and expects to complete his Master of Public Health degree in 2022. Macon practices clinical medicine at Banfield Pet Hospital, with special interest in community practice and client-care. For his graduate studies, he investigates antimicrobial resistance in cattle farming communities using tools in epidemiology to advance One Health. While his initial interest in veterinary medicine dealt with food security and global health, Macon worked with several other veterinary students to establish an outreach program for high school and college aged students underrepresented in the veterinary profession. This work, combined with a burgeoning interest in veterinary community practice, fostered his interest in Access to Veterinary Care, which he hopes to continue wherever his career takes him.

**Virginia Behmer** is a first-year veterinary student at the Ohio State University College of Veterinary Medicine with an interest in Public Health, Shelter Medicine, and Exotics. She earned a Bachelor of Art in Biology, Medical Anthropology, and Psychology at Case Western Reserve University. Currently, she is a Board Member of the International Association of Veterinary Social Work. Her interest in access to veterinary care grew from a passion for social justice and human-animal interaction research. It also grew clinically through multiple years' experience as an emergency/critical care veterinary assistant and as a volunteer veterinary technician/manager at a reptile rescue in Greater Cleveland. Upon completing her DVM, she hopes to complete her Master of Public Health degree and continue a career in interdisciplinary research and community-based veterinary care.

**Ellen Bryant** is a first-year veterinary student at The Ohio State University College of Veterinary Medicine with a specific interest in shelter and non-profit animal medicine. Prior to veterinary school Ellen spent several years working in animal welfare, with the majority of her career spent in humane investigations in Cleveland, OH. During this time, she collaborated with numerous local organizations to improve both human and animal welfare and was able to appreciate the role of accessible care in promoting pet retention and empowering animal owners. Upon completing her DVM, she hopes to continue expanding on the current models for accessible veterinary care and identify other ways to support animal owners in need of additional resources.

**Kianelys Heredia** is a first-year veterinary student at the Ohio State University College of Veterinary Medicine. She was born and raised in Puerto Rico and moved to Florida to study Microbiology and Cell Science at the University of Florida. She was able to get involved in the community by volunteering at a local shelter and a veterinary clinic that provides free primary veterinary care to people in vulnerable communities. Her interest in access to veterinary care and shelter medicine began due to the increasing number of homeless animals and the lack of accessible veterinary care in Puerto Rico. After graduating, she hopes to pursue a career in Shelter Medicine.

**Amelia Jones** is a third-year veterinary student at the Ohio State University College of Veterinary Medicine with an interest in shelter medicine, conservation, and affordable care. Amelia graduated from Wellington High School in Wellington, Ohio in 2010 having completed 47 college credits during that time. In May 2014 she earned both an Associate of Arts from Lorain County Community College and a Bachelor of Science in Education, emphasis in Sport Coaching and Strength Conditioning, from the University of Akron. Amelia also earned an Associate of Science from Lorain County Community College in May 2019. During undergrad as well as post-bachelors, Amelia participated in and conducted research. Having lived in mostly low socioeconomic urban and rural areas and coming from a low socioeconomic status household, this topic hit close to home.

## ACKNOWLEDGEMENTS

Thank you to the people listed below who graciously provided their time, experience, and thoughts to inform this report. Affiliations are listed for clarity and are not intended to indicate support of the individuals or organizations for the views expressed in this report. Interview and recruitment procedures were reviewed by The Ohio State University Office of Responsible Research Practices and determined to be exempt from Institutional Review Board review (Study Number: 2021E0877).

Aimee St Arnaud, Community Pet Care Clinic  
Allison Lash, Cleveland Animal Protection League  
Amanda Landis-Hanna, Heal House Call Veterinarians  
Amy Mills, Emancipet  
Ann Hill, Pets in Need  
April Ward, Heal Housecall Veterinarian  
Apryl Steele and Jodi Buckman, Dumb Friends League  
Apryle Horbal, Vet Now  
Ashley Malaney, Lyndhurst Animal Clinic  
Becca Britton, Neighborhood Pets Resource Center  
Beth Sperry, Back Roads Spay Neuter  
Bob Murtaugh, Thrive Pet Healthcare (formerly Pathway Vet Alliance)  
Brian Forsgren, Gateway Animal Hospital (retired)  
Dave Pauli, Humane Society of the United States  
Elizabeth Berliner, Maddie's Shelter Medicine Program at Cornell  
Emily Walz, City of Boston  
Gary Block, Ocean State Veterinary Specialists  
Jack Advent, Ohio Veterinary Medical Association  
Jon Geller, Street Dog Coalition  
Kate Atema, PetSmart Charities  
Lorraine Mosher, Big Fat Caribbean Rescue  
Michael Blackwell, AlignCare  
Mike Dyer, Proctorville Animal Clinic  
Pam Linden, AlignCare  
Robin Post and Jean Goh, Animal Fix Clinic  
Roger Fingland and Karin Zuckerman, Frank Stanton Veterinary Spectrum of Care Clinic  
Windi Wojdak, Rural Area Veterinary Services  
The DVMoms - Life In The Trenches Facebook Group  
Participants, Engaging the Future: Access to Veterinary Care Roundtable

The Ohio State University occupies the ancestral and contemporary territory of the Shawnee, Potawatomi, Delaware, Miami, Peoria, Seneca, Wyandotte, Ojibwe and Cherokee peoples. Specifically, the university resides on land ceded in the 1795 Treaty of Greeneville and the forced removal of tribes through the Indian Removal Act of 1830. We want to honor the resiliency of these tribal nations and recognize the historical contexts that have and continue to affect the Indigenous peoples of this land.

**Table of Contents**

**SUMMARY ..... 8**

**INTRODUCTION..... 10**

**REFERENCES..... 13**

**SPECTRUM OF CARE ..... 14**

**Total spectrum of care clinic: ..... 16**

**Telemedicine and tele-triage: ..... 16**

**Blocked tiered appointments: ..... 17**

**Summary..... 18**

**SPECIALIZED BASIC CARE ..... 19**

**Spay/neuter only: ..... 20**

**Vaccine and wellness only: ..... 21**

**Dentistry only: ..... 21**

**Hospice:..... 21**

**Summary..... 22**

**EASY TO ACCESS LOCATIONS ..... 23**

**Satellite clinics:..... 24**

**Pop-up clinics: ..... 25**

**Mobile clinics:..... 25**

**Extra hours or No appointments:..... 26**

**Drop-off or day appointments: ..... 26**

**Inclusion: ..... 26**

**Summary..... 28**

**SUBSIDIZED CARE ..... 29**

**Self-Subsidy:..... 30**

**Donations: ..... 31**

**Fee-for-Service Contracts: ..... 32**

**Grants: ..... 32**

**Partnerships: ..... 33**

**Summary..... 34**

**BARRIERS TO ACCESSING VETERINARY CARE..... 35**

**Client Barriers: ..... 35**

**Veterinarian Barriers: ..... 37**

**PERIPHERAL ISSUES..... 39**

**Insurance, payment, and package plans: ..... 39**

<b>Corporate practices:</b> .....	<b>39</b>
<b>New technology:</b> .....	<b>39</b>
<b>Licensing and liability:</b> .....	<b>40</b>
<b>Veterinary physician assistants:</b> .....	<b>40</b>
<b>Partnerships:</b> .....	<b>40</b>
<b>Curbside and drop-off care:</b> .....	<b>41</b>
<b>COVID-19:</b> .....	<b>41</b>
<b>Ethics of who gets what care:</b> .....	<b>41</b>
<b>Students and access to veterinary care</b> .....	<b>42</b>
<b>GLOSSARY OF TERMS</b> .....	<b>43</b>
<b>VETERINARY PRACTICES MENTIONED</b> .....	<b>49</b>

## SUMMARY

Access to veterinary care (AVC) is an issue for animal welfare, public health, and social justice. Lack of AVC is a result of a host of barriers from the client perspective as well as the veterinarian perspective. One major barrier of AVC is cost to clients, which is mirrored from the veterinarian perspective as concern for financial sustainability of their practice and their personal finances. To address this concern, we spoke to people who run, work in, and have experience with different sustainable practices that extend care to underserved populations. We asked them what works well in their practices and what veterinarians should know or avoid if they want to increase AVC in their practices without damaging the financial sustainability of their practice or their personal finances.

We have summarized information from these interviews by breaking out strategies into four comprehensive categories based on how the practice operates from a business perspective: Spectrum of Care, Specialized Basic Care, Easy to Access Location, and Subsidized Care. Spectrum of care focuses on providing options to clients at a range of prices, all of which are equivalent in their net income to the practice and likelihood of positive outcomes. Specialized basic care reduces costs to clients while maintaining revenue through efficiency and volume of limited services. Easy to access locations do not focus on cutting costs but provide improved AVC by addressing other barriers like accessibility, geography, transportation, culture, and language at prices that cover costs to the practice and standard profit margins. Subsidized care uses internal and external sources of revenue other than from clients to make up the difference between the costs to the practice plus profit margin and the amount that clients can afford to pay. Each model is discussed in detail with example implementations and the overall model is summarized in the table below.

Business Models	Number of Transactions	Cost per Transaction	Net Income per Transaction	Overhead Costs	Source of Income	Veterinarian and Staff Time
Traditional	baseline	baseline	baseline	baseline	clients	baseline
Spectrum	+	variable	baseline	baseline	clients	+
Specialized Basic	+++	-	-	-	clients	-
Easy to Access	variable	baseline or +	baseline	variable	clients	+
Subsidized	baseline	-	baseline	baseline	clients + other	+

While these models are helpful for framing discussion around improving AVC, they were seldom used alone in the practices we discussed with interviewees. Often a deficiency of one model was fixed by adding aspects of another model, or multiple client barriers were addressed through hybrid methods. Therefore, consider all of these models and tools and match them to the needs of the clients you want to serve and your goal when it comes to improving AVC. The table on the next page is provided to help you in thinking about the different methods we present in more depth throughout the rest of this report.

Following our discussion of AVC models for veterinary businesses, we have provided a discussion of barriers to accessing care, issues peripheral to AVC, and a glossary of AVC terms as we are using them here. These may be useful references in reading this report as well as fully considering how to implement AVC models and tools in a given setting.



I Want To ...	Look at ...	Augment with ...	Tends to work in ..	Remember to ...	Watch out for ...
<b>Help people who have few resources</b>	Subsidized	Easy to Access	urban settings	work with community partners	taking on too much
				start small	compassion fatigue
		Specialized Basic		celebrate your service	work-life balance
				know the needs	
				track services donated and pets served	
<b>Fill veterinary deserts</b>	Easy to Access	Spectrum	rural or mixed income areas	match services offered to community needs	overhead
				build trusting relationships	licensing
				start local	
<b>Match services to client goals and means</b>	Spectrum	Subsidized	areas with mixed incomes	spend time on communication	discounting
				offer choices you are comfortable with	ethical exhaustion
				focus on diagnostics that will change what you do	personal biases
				be non-judgmental	
				document communication	
<b>Do one thing well and equally for everyone</b>	Specialized Basic	Subsidized	urban or suburban locations	be efficient	technician turnover
				give responsibility to expert technicians	scope creep
				limit services offered	push back from other vets
		Easy to Access		look for locations with high volume of pets	
				work in cooperation with other vets	

## INTRODUCTION

One of the persistent challenges facing the veterinary profession in the United States is ensuring that animals have **Access to Veterinary Care (AVC)**. The goal of this report is to provide for-profit private practice veterinarians and for-profit veterinary practice leadership examples of existing business models that successfully incorporate this priority into practice. In this report, ensuring Access to Veterinary Care means ensuring that pets (1) receive clinical and preventive care and (2) preserve a good standard of welfare independent of the current and historic situation of their owners or bonded families.

Injuries and conditions left untreated due to client and practice financial or other barriers present an animal welfare concern and concern for the wellbeing of pet owners, veterinarians, and other practice staff. Lack of AVC also raises public health concern, as some preventable animal diseases are zoonotic. The impact of AVC from a business or public health standpoint is seldom studied, although regarded as important by veterinarians regardless of age or graduation date<sup>4</sup>. Most reports on AVC and other topics related to community-based practice are editorial in nature<sup>5</sup>. This report aims to further elucidate AVC as an approach to business and provide a framework for future study of the business of AVC. While the AVC concept is simple and a natural expansion of the Veterinarian's Oath, implementation of AVC can be complex. Veterinary practices have promoted AVC, both consciously and unconsciously, through time, but there is little structured guidance as to how existing practices can strategically and sustainably broaden AVC.

Perhaps a reason for the lack of clear strategy around AVC is that, historically, the financial responsibility of AVC has often fallen on the individual practitioner or practice. Veterinarians have a longstanding tradition of serving their local communities. AVC likely contributes a large part to this respected status. Veterinarians are ideally able to help when a pet is in need. However, the education surrounding AVC varies institution by institution, and in some cases is limited. One publication suggests the increasing pathway into specialty training has made it difficult to accommodate the needs of society<sup>6</sup>.

In the current archetypal small animal veterinary practice model and many of the corporate-owned practice models that are increasing in prevalence, a practice provides high-quality care to pets in its immediate area with two to five veterinarians and approximately double that number of technicians. Basic diagnostic testing (fecal flotations, blood glucose, lateral flow serology, and radiology), in-patient treatment, and surgery are done in-house, while more complex diagnostic, surgical, and medical cases are referred to a specialty practice or laboratory. Generally, this sort of practice is open during weekday business hours and may have additional hours on weekends and a few evenings. Emergencies outside of business hours are referred to a nearby specialty clinic with 24/7 emergency care. The exact pricing structure, appointment lengths, staffing, number of clients needed to cover costs, and peripheral services offered (grooming, boarding, rehabilitation, ...) varies widely. Overall, the general model relies on having enough clients with the means to support the practice and pricing of services to cover overhead and staff. As such, the standard new practice must be built in a location with a large population that has the means to pay for the veterinary services offered. Established practices with this model also remain viable only by existing in a location with enough clients who can pay for services at a rate commensurate with the cost of operating the practice.

Outside the realm of veterinary medicine, businesses have made profits by lowering costs and maintaining presence in underserved locations. While some models achieve access for consumers at the expense of work environment and product quality, the example veterinary practices presented in this report are making use of similar consumer needs to improve animal welfare and public health without sacrificing animal care or staff wellbeing.

Perception of practice quality standards are changing. Additionally, the concern for financial viability is increasing with student debt concerns rising in the veterinary profession. The veterinary profession has also recognized stress, burn-out, and suicide as critical problems within the professional community. Improving AVC by devaluing our work (via not charging) or putting in more hours at the expense of personal and social time, is increasingly recognized as unhealthy. Our aim with this report is to influence perception about AVC and suggest that pitting finances against AVC is both an awkward and unnecessary dilemma. Prioritizing AVC in practice can be profitable and improve wellbeing.

In this report we will explain business models and tools practices can use to improve AVC by breaking them out into four general categories: Spectrum of Care, Specialized Basic Care, Easy to Access Locations, and Subsidized Care. These categories are based on the types of barriers to care they address and the primary business strategy they use to remain viable. All models have strengths and weaknesses that need to be considered and addressed in planning, so we will present those General Pluses and Minuses alongside the models. Ultimately, in the words of one expert we interviewed for this report, “You need to know who you're aiming to serve”. By identifying key barriers to care in the community and picking tools to address those challenges strategically and incrementally within the means of the practice, we assert that practices can be successful in expanding AVC.

## Barriers to Accessing Veterinary Care



Veterinarians appreciate the persisting need for care, with 72% agreeing that the current practice model is not adequately serving all owned pets. Opportunities exist for veterinary businesses to incorporate AVC into their practice, but first let us orient ourselves with some information by taking a step backwards and looking at barriers to accessing veterinary care. Barriers to accessing veterinary care are described in (AVCC 2018 and LaVallee et al, 2017) and emphasize client-side barriers that prevent them from visiting veterinarians. However, barriers to accessing veterinary care are not all due to the client. Veterinarians also have barriers that prevent them from offering care. Mismatches also exist between veterinarians and

clients that prevent AVC on both sides. For our purposes, we have placed barriers on the client side and veterinarian side based on which individual feels the barrier most acutely and defined each in detail in a separate section on Barriers to Accessing Veterinary Care.

The magnitude of client barriers is often unseen by veterinary practitioners, as the pets who pass through clinic doors are often with the owners who have the means to overcome them. If a practice can maintain itself serving only clients with means, the opportunity cost associated with the unserved clients is invisible. Similarly, if a budding practice owner is looking for a place to open a practice under the current standard model, a market survey looking for areas with large populations with economic means would push them away from many areas with barriers. While many veterinarians are aware of these barriers and are increasingly being taught about them in their professional training, pathways for addressing these barriers in veterinary practice are not clear or clearly accessible for all veterinarians. In instances where owners with limited resources walk through the doors, simply offering lower cost services without doing so purposefully could destabilize a practice's or practitioner's finances. With increasing student debt often cited as a concern of veterinarians and low wages cited as a reason for low retention of technical and support staff, practices cannot ignore their financial health.

Throughout this report, we will refer to the barriers to care above using their icons. The color of each barrier icon (red, yellow, green and gray) corresponds with the relative usefulness of a specific AVC model in mitigating that barrier. Red indicates that the model is detrimental to that barrier. Yellow indicates that caution needs to be taken around the barrier to prevent a detrimental effect. Green indicates that the business model addresses the barrier. Gray indicates that the barrier does not apply, has not been assessed, or is neutral in this business model. We hope this labeling will help with understanding of the fit of each model to the veterinarian's situation and client population.

## Business Models and AVC

Ultimately, a veterinary practice has income for purchased goods and services and expenditures that are fixed costs (building, utilities, equipment, etc.) and variable costs (materials, etc.). As part of a business model, prioritizing AVC has the advantage of bringing more clients and patients to the practice; thus, more transactions that result in income. Veterinarian's concerns with prioritizing AVC in business models arise from the potential of having a lower average transaction fee and possibly increasing staff time and costs. For example, extending into additional locations that cannot provide enough transactions will not be sustainable unless the practice changes the average transaction fee or reduces costs to maintain the additional location. Providing more labor-intensive services to decrease client costs for diagnostics and specialty referral and expending efforts on activities that improve accessibility but do not directly generate income, such as taking time in cross-cultural client education and communication, can increase variable costs and must be offset by increasing transaction fees, gains in volume, or improved staff retention.

Veterinarians and veterinary practices interested in AVC can fall into the trap of trying to accommodate every client by lowering costs and volunteering their time without a plan. For some practices this has worked by chance or good instincts. But for many, this jeopardizes practice sustainability, work-life balance, and wellbeing. Other practices have not tried to improve AVC, become rigid in only offering advanced and expensive care, or billed their staff for writing off charges for fear of losing financial viability. While nearly every veterinary practice has some sort of emergency fund for patients, they are seldom satisfying to everyone in the practice. Incorporating an AVC philosophy as part of a business model is certainly not for every practice, but aspects of AVC can be implemented in most practices without the harms that some practices fear and with the benefit of making veterinary practice satisfying.

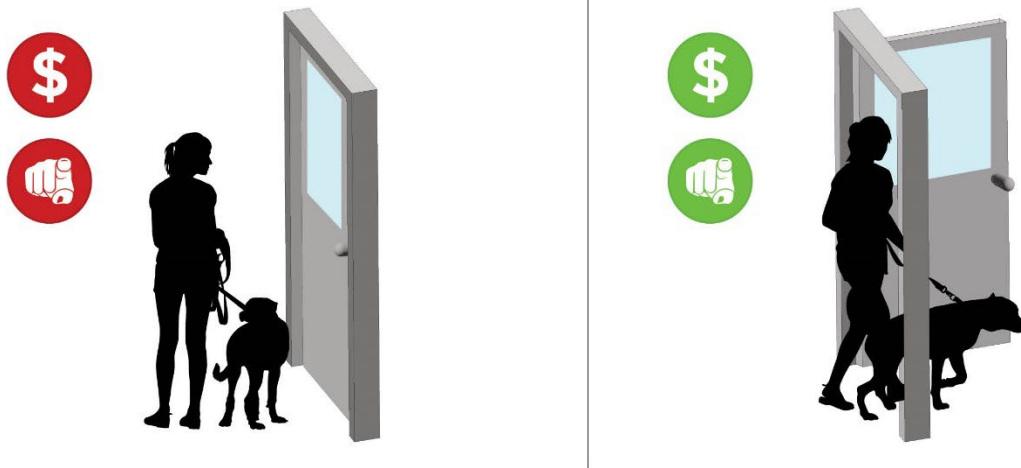
By consciously manipulating the balance of number of transactions, income per transaction, fixed costs, variable costs, and unseen costs, veterinary practices have been successful in increasing AVC without hurting their business and sometimes improving their business.

Simply put, the opportunity and need to increase access is ample. The following report provides blueprints of business models and supplements to existing practices that can improve access to veterinary care. By describing the benefits, caveats, and resources for each model, we hope to make it easier for practices and veterinarians to implement some or all of these strategies that have been successful in some settings. We hope it allows you as a veterinary professional to evolve your care for people and animals into economic business decisions that will benefit your practice and all the pets in your community.

## REFERENCES

1. Dicks M, Bain B, Knippenberg R, Dutton B, Ouedraogo F, Hansen C. 2017 Annual Market for Veterinary Services Report. American Veterinary Medical Association. 2017
2. Cecil, Adam; How much would you spend to save your pets life?; Policy Genius (online) Sept, 12, 2014
3. McGinnis, Annika and McElhaney, Euthanizing pets increase as veterinary costs rise; Alicia ; USA Today June 7,2014
4. University of Tennessee Knoxville. Access to Veterinary Care: Barriers, Current Practices, and Public Policy. December 2018.
5. LaVallee, E., Mueller, M. K., & McCobb, E. (2017). A systematic review of the literature addressing veterinary care for underserved communities. *Journal of applied animal welfare science*, 20(4), 381-394.
6. May S, Silva-Fletcher A. Scaffolded Active Learning: Nine Pedagogical Principles for Building a Modern Veterinary Curriculum. *Journal of Veterinary Medical Education*. 2015.
7. Fingland, R. B., Stone, L. R., Read, E. K., & Moore, R. M. (2021). Preparing veterinary students for excellence in general practice: building confidence and competence by focusing on spectrum of care. *Journal of the American Veterinary Medical Association*, 259(5), 463-470.
8. Brown, C. R., Garrett, L. D., Gilles, W. K., Houlihan, K. E., McCobb, E., Pailler, S., ... & Wietsma, H. T. (2021). Spectrum of care: more than treatment options. *Journal of the American Veterinary Medical Association*, 259(7), 712-717.
9. Stull, J. W., Shelby, J. A., Bonnett, B. N., Block, G., Budsberg, S. C., Dean, R. S., ... & Wittum, T. E. (2018). Barriers and next steps to providing a spectrum of effective health care to companion animals. *Journal of the American Veterinary Medical Association*, 253(11), 1386-1389.
10. Haston, R. B., & Pailler, S. (2021). Simulation of the effect of low-cost companion animal clinics on the market for veterinary services. *American Journal of Veterinary Research*, 82(12), 996-1002.
11. Cadée F, Nieuwenhuijze M, Lagro-Janssen A, De Vries R. The state of the art of twinning, a concept analysis of twinning in healthcare. 2016. *Global Health*: 12: 66.

## SPECTRUM OF CARE



The philosophy of spectrum of care (see glossary for definition) is to offer clients, and their pets, care that is commensurate with (1) their economic ability to afford veterinary service and (2) their goals for giving their pet a good life. This philosophy recognizes the need for extending care, empathy, and professional experience to clients regardless of their situation in life. In this way, a spectrum of care model addresses the client barriers of cost and fear of judgement.

Within veterinary practice, the spectrum of care philosophy can be implemented by offering a variety of options for clients that all meet standards of care and are priced to meet or exceed cost of delivery, but that have different costs to the client. Care can be formally divided into tiered increments or treated continuously along a spectrum (see box). Spectrum of care uses a patient-centered approach: veterinarians evaluate animals, discuss means and goals with clients, develop mindful diagnostic and treatment options, discuss options with clients, and proceed with delivering care either at one time or incrementally through multiple visits. Offered plans maximize patient outcomes and assess the necessity of diagnostics and feasibility of treatments with their cost. Spectrum of care depends on a veterinarian's experience and critical thinking ability to manage a case within the bounds of economics and standards of care. The goal of this approach is to serve animals and decrease the adverse consequences – no care, guilt, moral distress, surrender, euthanasia – associated with financial constraints.

**Spectrum versus Tier:** Some practices implementing spectrum of care practice emphasize creating tiers of service or pricing to help in managing options and simplifying billing. In this report we will use "spectrum of care" to be consistent with literature from our institution, and because it represents care more continuously in terms of cost and complexity, rather than categories or tiers. There is a danger in creating categories of care because it asks veterinarians to label clients as one thing or another. While categorizing clients may help the veterinarian to quickly assess the situation and mentally process diagnostic and treatment options, it can also keep veterinarians from taking time to communicate and understand the individual situation in front of them in a non-judgmental way that is paramount to this AVC model. Categories or tiers are still appropriate and needed for academic discussion, education, and data analysis, and may facilitate billing and accounting. We prefer the concept of "spectrum" when it comes to implementing care.

A spectrum of care implementation may have financial effects on the veterinary clinics, but in the pure model, effects are neutral to net income. Veterinarians practicing spectrum of care have the option to decrease costs for clients by reducing variable costs like sending out bloodwork, so there may be a lower revenue per transaction. However, as a business model, each transaction still covers the fixed and variable costs associated with the care that is given, so there should not be an impact on profit or net income. Expenses to the practice that are passed on to clients, like services billed from laboratories or use of expensive medications may change but will not impact profits unless the practice marks up these costs. Efficient use of time, technology, and veterinary staff can maintain overall practice income while further reducing costs to clients by reducing overhead. Spectrum of care is intended to use best experiential judgement toward case management to decrease costs. In examples we interviewed, increased transaction volume is an important aspect of making this model successful at reducing costs significantly for clients.

“Communication skills and a focus on the relationship between the veterinarian and the client is foundational to spectrum of care.” (Mike Dyer) It is imperative for veterinarians to maintain adequate records and fully document discussions concerning economic issues and client choices about care. Meeting the standards of record keeping and professional case management is important any time a choice is offered, which is central to the spectrum of care concept. While our interviewees report that legal action and informal complaints are less common in veterinary practices that serve underserved populations, reasons that underserved clients don't complain are complex. Given the lack of formal study of legal action for different types of veterinary practices and client populations, we suggest good documentation in any practice, but spectrum of care practices, specifically, because they inherently offer choices. The likelihood of legal action in any practice model is substantially reduced with good communication and relationship building between veterinarian and client.

Adopting a spectrum of care outlook to practice for all staff, veterinarians, and practice owners also helps to relieve feelings of hopelessness and “burnout” that are common in the profession. Value should be placed on strengthening the veterinarian-animal-client bond. Fulfilling professional and ethical standards should also be given value when evaluating patient care and the rewards of practice.

Because many veterinarians are already practicing spectrum of care medicine, this model to increase AVC may be the most intuitive. For some practices it is just a matter of naming their work as spectrum of care and being more confident and purposeful in using this as a real model. For others, adding some particular structure and goals to the model may be helpful in tracking and determining what changes can be tolerated.

### **Addressing Veterinarian Barriers to Providing Care: Spectrum of Care**



Among the purported benefits of spectrum of care, this approach allows veterinarians to consider the financial capacity of pet owners while operating at a level of practice standards they feel comfortable with. For the intentionality and conscientiousness required, spectrum of care is suggested to be a good model for addressing veterinarian barriers of implicit bias and perception of practice standards. However, some veterinarians express concern that litigation might result from a client’s dissatisfaction with the standard of care provided, highlighting the importance of establishing a relationship of collaboration. The potential for improved veterinarian and client bond and loyalty is also promising as an unseen benefit of the business model. Mike Dyer of Proctorville Animal Clinic in southern Ohio aptly comments, “If you prioritize client care and true heartfelt compassion, business will come.”

## Models and tools

### **Total spectrum of care clinic:**

The idea behind the spectrum of care model is that the whole practice works to match the cost of care to the individual client, with the client's care goals, and to the amount they want to spend. In practice, this means that lower-cost options offered to clients use diagnosis based more on history, physical exam, and simple in-house tests. Additionally, treatments are based more on the goal of minimizing or resolving symptoms empirically, rather than identifying the exact pathology or causative agent. For example, complex fractures may be treated with amputation rather than with plates or pins. To differentiate this model from others, there is no conscious balancing of high-cost and low-cost care in the total spectrum of care model. The practice must track income over time to see the exact mix they are getting and adapt equipment and inventory to match services provided. The practice may need to increase efficiency to further reduce costs for clients they are aiming to serve. For businesses and veterinarians, total spectrum of care is possibly the most difficult of all models to get right. The veterinarian or technical staff must establish good communication and trust with the client so that they can understand the client's goals and constraints. They must also document conversations to be clear about options offered and choices made. In both diagnosis and treatment, the veterinarian must consider a range of options, their relative value, and their relative cost, then communicate their thought process and options to the client. Because all options may be offered to some clients, the practice must maintain a full complement of equipment, medications, and materials, which may not be cost-effective unless all services are used frequently enough to pay for their maintenance. Because of the need to use all equipment and medications, total spectrum of care clinics are only viable in areas with mixed populations that wish to use all of the spectrum of options available. In areas without such a mix, a spectrum of care clinic may need to limit what it offers and refer clients to other practitioners for services and equipment they cannot afford to keep up. **Community Pet Care Clinic** and **Open Door Veterinary Care** use subsidies (see Subsidized Care section) within their spectrum of care approach to achieve a sustainable for-profit model for clients who cannot afford even low-cost care. Though still new, the **Frank Stanton Veterinary Spectrum of Care Clinic at The Ohio State University** has been set-up to exemplify this model.

### **Telemedicine and tele-triage:**

Telemedicine and tele-triage tend to be more a tool that practices can use in collaboration with spectrum of care to become more efficient, rather than a stand-alone business model. As tools for practice, they extend the reach of the veterinary practice so that clients can get advice and manage cases from their own home, saving the time and cost of going to a veterinary practice while still allowing for the practice of veterinary medicine within an acceptable spectrum of care. Largely, tele-triage services are doing what veterinary receptionists have done for years in helping clients decide whether their animal needs to see a veterinarian. Some tele-triage services may cost the owner nothing and charge the practice in different tiers, considering volume of clients or charging a small fee to clients directly. At last look \$20 was a ballpark price per call with the possibility of applying the amount to an examination fee with a participating veterinarian if in-person care was needed. These services are often available 24/7/365 and are staffed by networks of technicians and veterinarians. Services that employ licensed veterinarians can move from just helping with "should I go in" and "where can I go" to asking for history and physical exam details over the phone and providing at-home management advice (telemedicine). For associate veterinarians, working for a telemedicine service or providing telemedicine appointments from home on a limited schedule can be attractive, especially when juggling caregiving responsibilities and health problems.



There are three ways to implement telemedicine and tele-triage appointments to extend the reach of practices while also generating revenue. The first (1) is for the practice to create its own system with text messaging, phone, and video conference tools and develop a method of charging for time used in these exchanges. The second (2) method is to use a service that simply handles the telecommunications and billing functions only, relying on the practice to supply staff for the appointments. The third (3) method is to use a comprehensive service that staffs the phone, video, or text messaging along with providing tracking and billing functions.

Telemedicine encounters licensing issues in some states and requires a valid veterinary-client-patient relationship in most cases. While this model can reduce overhead costs and help clients to manage problems at home, it is not appropriate for many problems where physical contact with the animal is necessary for diagnosis and/ or treatment. No one should be talking a client through surgery on the phone, but simple recheck appointments may be quite effective. Telemedicine and tele-triage can efficiently select only those pets that must be brought into the clinic, give clients confidence that they should go to the clinic, and prepare clients for what they can expect from a visit.

For practices implementing telemedicine and tele-triage, finding a way to charge for these services without going through an existing company can be difficult. External companies streamline the process and take a portion of revenue. While there is great potential for these services to extend AVC geographically, economically, and culturally, this aspect has not been realized yet (see peripheral issues). For example, **AlignCare** offered telemedicine to their clients on a limited basis during 2020 and none of their clients used it. Conversely, the **Street Dog Coalition** has started providing free ad hoc telemedicine and tele-triage using Google Voice and have had some success. **VetNow** is an example of a telemedicine platform that offers its own spectrum of care from preventive care through specialist care partnering with independent veterinary practices.

### **Blocked tiered appointments:**

Blocked tiered appointment models block off specific days, times of day, or clinicians on a particular day for different tiers of care. This method allows the practice to track the services it is providing in a better way and make sure that only a percentage of the practice is devoted to each tier in the spectrum of care. It may also help clinicians in limiting what they offer based on the tier of service assigned to each appointment. The issue with this model comes in deciding which clients get which appointments, so a substantial part of the communication about goals and costs is done by non-veterinarians or by clients themselves. When clients make these decisions, they can consider price and perception of differences in outcomes, but they don't have the medical knowledge to understand more complex decisions. For this reason, putting the decision of tier *a priori* on the client is more appropriate for preventive care than for sick pet care. Partnering with a shelter or other organization serving needy populations allows for scheduling and screening to go through those groups and simplifies the process. It also helps in tracking these appointments for subsidy programs (see subsidized care model). **Lyndhurst Animal Clinic in Northeast Ohio** is exploring this model in combination with subsidized care.

## Summary

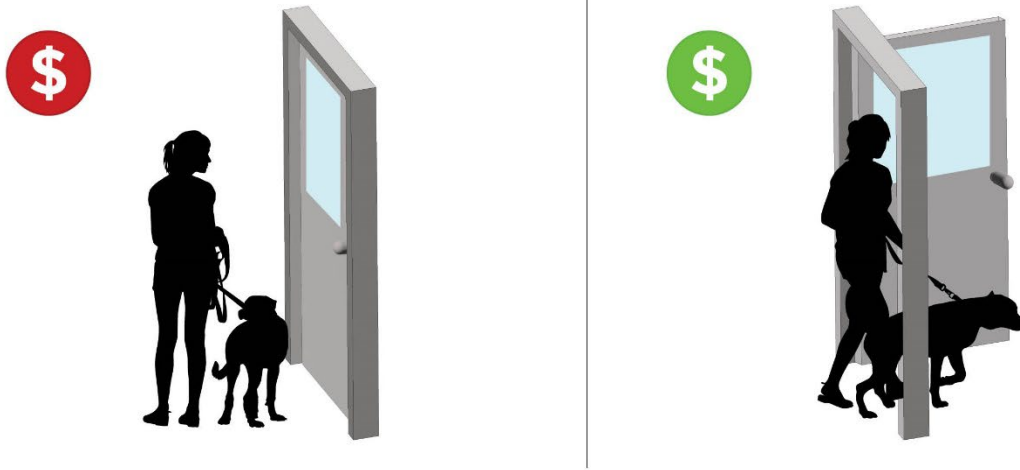
### **General Pluses:**

- There is flexibility to incorporate a spectrum of care aspect into any existing practice model.
- Done well, spectrum of care builds a strong bond between client and veterinarian that increases loyalty and decreases stress in emotional situations.
- When the practice embraces this model, veterinarians can feel supported in doing their best for each client and patient.
- An advantage of the spectrum of care model is that it lets the client choose what care best meets their goals and limitations.
- In its pure form, this model has no impact on the net income of a practice.

### **General Minuses:**

- Determining care “levels” can be tricky and inconsistent if the spectrum of care is not based on individual client conversations.
- Veterinarians and clients are concerned about standards slipping for low-tiered levels.
- Without increasing efficiency and decreasing overhead, care may remain unaffordable for some clients.
- Licensing restrictions vary for what can be done using technicians and remote methods.
- Though veterinary medical schools are trying to address the problem, new graduates often feel most uncomfortable in this model as they are required to process and synthesize many inputs and options. Often veterinarians working in this model are expected to do procedures that they have not done or even seen before. While some veterinarians enjoy the creativity and challenge, this can be a huge stress for some.

## SPECIALIZED BASIC CARE



Specialized basic care is a practice that offers a single or very limited set of services in a highly efficient way to reduce costs for all clients equally. By limiting their services, specialized practices can provide a high volume of service and increase the quality of the service they provide while keeping low overhead. We have found examples of spay/neuter only, vaccine and wellness only, dentistry only, hospice only, and some single-species practices.

Veterinarians working in these practices report that they appreciate having the ability to focus on one thing and get very good at doing it well and efficiently. Because these practices generally do not provide urgent care or emergency care, they have more regular schedules and hours that allow for improved work-life balance.

Specialized practice business models rely on being very efficient at their few services and keeping overhead low by not maintaining a lot of equipment and space that would be used for services they do not provide. Thus, they can provide their few services to many pets at a lower cost for everyone. The focus of specialized basic care clinics is on the client barrier of cost. They rely on a high volume, so these practices tend to be more successful in urban and suburban areas where there are many pets, and clients can find full-service practices for other care that their pets need.


**Rural Specialized Care?** Specialized practices can be successful in rural areas as pop-up clinics (see easy to access locations) if they can coordinate with local populations to make a volume of pets available at a designated location when practitioners are available. Specialized basic care practices pair well with mobile and pop-up models, so if we think of these as practices rather than clinics, they can also address the barrier of location instead of or in addition to the barrier of cost. **Back Roads Spay Neuter in Maine** is an example of a specialized for-profit practice that serves rural populations.

Care needs to be taken by veterinarians working in these models to prevent scope creep. Scope creep in this context is a gradual increase in services and options provided to clients. While the occasional special case can be okay, models built around efficiency and volume with limited equipment and inventory cannot tolerate too many variations. If veterinarians find that clients regularly request and need more services, they might consider consciously adding the new service in an efficient way. **Emancipet** has

developed standardized modules of care that practices can add to their services when they identify sufficient demand from their clients.

Because of the need for efficiency and volume, experienced technicians can be critical to specialized basic care practices. Technicians can be responsible for many parts of care that do not require a veterinary license. Windi Wojdak reports that **Rural Area Veterinary Services** technicians have become experts in their parts of these high-volume specialized procedures to the extent that they improve outcomes over data published from traditional practice settings. Because of some reliance on highly experienced technicians in specialized practices, turnover is particularly problematic. Fair compensation and good work culture are, thus, particularly important.

**Addressing Veterinarian Barriers to Providing Care: Specialized Basic Care**



Regarding barriers to providing veterinary care from the practice standpoint, specialized basic care differs in marginal ways from the traditional model. However, specialized basic care suggests higher capacity for improving volume of patient interactions, and depending on the specific approach, reducing overhead costs. From our interviews, veterinarians who use this model highlighted the sustainability of their business practice. Additionally, the ability to focus on perfecting a limited range of services delivered in a consistent way aids veterinarians in having good perceptions of meeting care standards. While interviewees working in specialized basic care settings reported that it improved their wellbeing and satisfaction over other practice models they had experienced, the high-volume setting has the risk of becoming stressful if the volume is not limited to what can be managed comfortably by the care team. For veterinarians who supplement their income through contract work at spay/neuter or vaccine practices and would be interested in this work full time, consider the words of Jean Goh from Animal Fix Clinic in Richmond, California: “If you can do this on vacation time, you can do it in your practice.”

## Models and tools

### **Spay/neuter only:**

Spay/neuter only practices spend all their time and resources performing spays and castrations. Advice may be given for post-operative care, but medical advice on other health issues is not typically given. Occasionally, spay-neuter practices function as mobile units with a “home base” at a full-service hospital, but others exist solely as mobile clinics, pop-ups or brick-and-mortar locations. Because spay/neuter procedures tend to be in young and healthy pets, full bloodwork and multiple visits are often unneeded, reducing costs and making the service more friendly for clients with transportation and time of day barriers. There is some question as to whether one visit without bloodwork is acceptable. However, in practice, spay/neuter exclusive practitioners often feel comfortable with a spectrum of care approach and accept the risk of an anesthetic procedure without bloodwork in an animal that would benefit from surgery. Surgery in older animals requires more pre-surgery assessment, and all clinics provide a thorough physical exam before surgery regardless of patient age. Regarding this question, Jean Goh of **Animal Fix Clinic** who performs nearly exclusive low-cost spay/neuters comments, “People need to be more comfortable with the idea that [spectrum of care] is not substandard care.” This choice will be left to the individual practitioner and client.

### **Vaccine and wellness only:**

Vaccine and wellness only practices offer a standard physical exam, but veterinarian-client-patient relationships (VCPR) beyond that service may vary. Follow-up wellness care after the vaccination visit is less common in these models. Many of these practices advertise their fees for a few standard packages to allow financial flexibility to clients. Very minimal equipment and materials are needed for this model, so it works well as a pop-up clinic and has very low overhead costs. Concerns have been expressed about this model over vaccine reactions for giving numerous vaccines at once and little observation or availability post-injection to address reactions. However, these concerns can be mitigated. A brief post-vaccine observation period and clear contact information for emerging problems with consent of the practice providing follow-up care are necessary. Some minimal materials to treat anaphylaxis or partnership with a nearby emergency clinic address this concern. This is the most efficient way of delivering basic preventive care to a high number of pets but must include references to nearby full-service hospitals for conditions that are diagnosed through exam or screening tests. Partnerships for referral in this context can benefit specialized vaccine clinics by providing follow-up for their patients and new business for full-service clinics. **Emancipet** is an example of a specialized practice that emphasizes equitable care for all through efficiently delivered, high-quality, low-cost care.

### **Dentistry only:**

Dentistry only models specialize in efficient and/or high-volume dental procedures that typically accommodate for both routine and complex cases. Pre-procedure exam, radiographs, and bloodwork may be done through a referring veterinarian to allow for a brief day-of procedure physical, so that multiple visits or dental staging are not needed. Unlike spay/neuter clinics, dental procedures are often done on older animals and animals with co-morbidities, making potential anesthesia complications an increased priority. Proactive planning to address potential anesthesia complications must be made a priority. Additionally, it is common for the extent of procedures needed to change after the veterinarian can fully examine the animal under anesthesia, so providing upfront cost estimates and packages is harder. Still, basic preventive dental cleanings can be somewhat standardized and offered at low cost and practices may choose to limit themselves to only preventive care or reserve limited appointments for more complex services. Sometimes, it is possible for a veterinarian with a technician to travel and provide this as a specialty service at other clinics or via a mobile unit, which reduces the need to maintain a brick-and-mortar facility, extends the area over which service can be provided, and increases the volume of transactions. **Veterinary Dentistry and Oral Surgery of Ohio** is an example of a dentistry only practice; however, we were unable to coordinate an interview with them due to their caseload.

### **Hospice:**

End of life and palliative care are offered in the hospice only model. These practices are designed to ease the process of humanely euthanizing a pet. Typically, such models take the form of mobile clinics that provide home euthanasia, but they may also provide some palliative care prior to euthanasia. Comfort care is a unique area of veterinary medicine that is increasing in occurrence, and these practitioners can obtain expertise in dealing with end-of life care and client support that can enhance welfare for these pets. Such care can be a heavy emotional burden for a veterinarian, but also rewarding to provide a high level of inter-personal client care. Veterinarians who choose this model tend to be solo practitioners who are passionate and feel fulfilled by this type of practice. Partnerships with social workers and grief counselors or additional training in these areas is recommended. This model is not practical in all areas due to limited demand. **Lap of Love** is a nationwide network of veterinarians providing these services.

## Summary

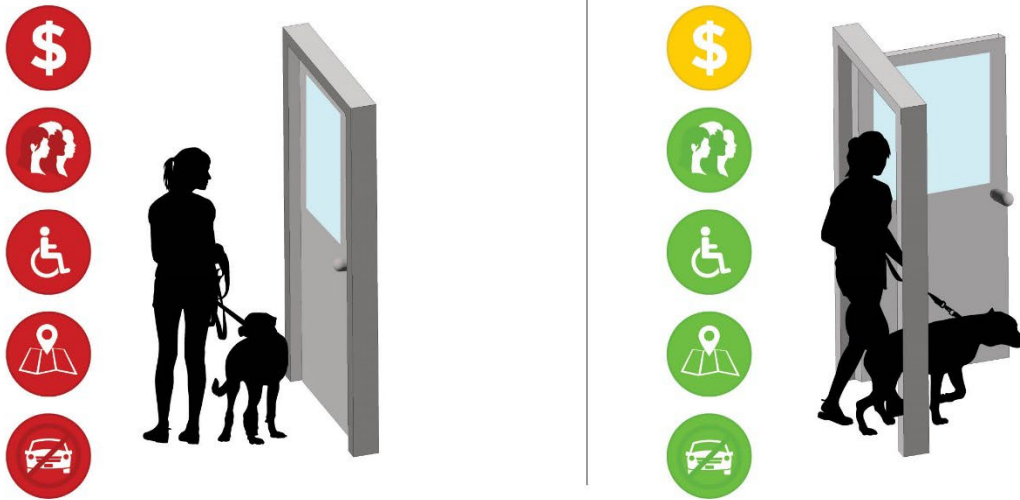
### **General Pluses:**

- Staff can focus and hone their skills, becoming efficient and confident.
- Technicians can specialize and take on more responsibility.
- Potentially better hours with less stress if volume is reasonably capped.
- Fits well with other models.
- Potentially no sacrifice in quality or even improved quality.
- Veterinarians can add a small component of specialized basic care to any practice through vaccine days, dental days, and spay/neuter days.
- Appointments and procedures will tend to be faster and lower cost for clients.

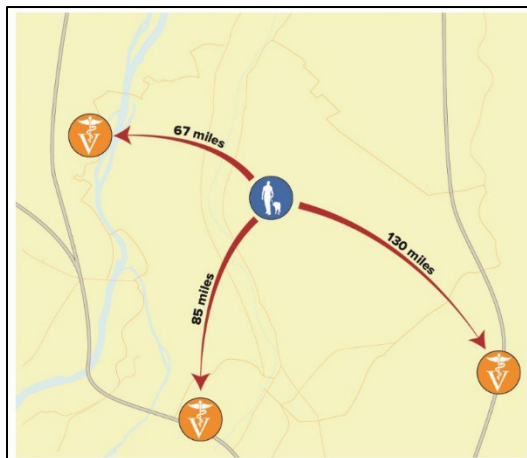
### **General Minuses:**

- Specialized practices only meet a specific need, so practices need to strictly limit their scope and refer for other things.
- Cost may still be high if efficiency is not achieved.
- Concerns that these practices steal clients from full-service practices by undercutting costs and letting standards of care slip in the interest of efficiency.
- Specialized practices are viable only in limited locations with high demand unless paired with another model.
- Tendency for clients to bring up other problems. While this can be viewed as an opportunity to help clients get additional care at another practice, veterinarians need to be clear about what they will and will not do for this model or switch to a spectrum of care model.
- Depending on licensing for practice locations in the state, some minimal equipment may need to be maintained even if it is not used for the services offered. The profession might investigate these requirements and find ways to ease them.
- High-volume specialized work can become monotonous work in the long run.

## EASY TO ACCESS LOCATIONS



The concept of creating easy to access locations addresses client barriers in transportation of their pets to a clinic location and other individual and cultural barriers that make accessing care difficult or uncomfortable for pet-owners. The business model presented here aims to increase the number of clients and use of services per client for the practice by making it physically and mentally easier to obtain services. The caveat is that the mechanism that makes the practice more accessible cannot cost more than the additional income from new clients or additional services from existing clients.



### Veterinary Desert

A veterinary desert is an area that is severely underserved by veterinarians. These areas can be urban, suburban, or rural and take on different characteristics in those different settings. In all cases, though, crossing the distance to find a veterinarian who can provide appropriate care for a pet is difficult. Clients without the time, transportation, and ability are not able to access care for their pets in veterinary deserts.

One key difference of this model from the others is that these clients do not necessarily lack the resources to pay for services. Thus, these practices may be able to charge higher prices for some, if not all, patients. While it is true that transportation (no car or carrier), physical (can't catch or lift pet or practice is not accessible based on a disability), geographic (veterinary desert), temporal (not available during business hours), and cultural (non-English speaking, distrustful of clinical settings or clinicians) challenges can co-occur with economic barriers, they are not perfectly linked. Thus, successful easy-to-access models often cater to a mix of full-paying and partial-paying or subsidized clients to sustain any additional costs of accessibility. In some mobile and pop-up implementations that additionally limit what services they provide in the easy to access model, overhead costs are kept low, so that there is not an additional cost of accessibility and may even be a reduction in cost to clients. While telemedicine has the potential to be the ultimate model of easy to access locations (i.e., from anywhere), we felt the limitations on what services

can be provided through telemedicine make it a better fit with spectrum of care models, so it is discussed there.

Market research is essential in easy to access models. Because the practice is trying to serve a particular location or population, their needs for veterinary care are important. Bob Murtaugh of Thrive Pet Healthcare mentioned that, while their practice group has a team to look at markets and needs, any veterinarian can look at census data, calculate expected numbers of pets, and talk with people and organizations in the community to get a good sense of market and needs. When first exploring easy to access locations, it is good to do some investigation of where people currently get services and what barriers other than location might need to be addressed. In addition, it may be useful to start with temporary, limited services and build based on demand. **Neighborhood Pets Resource Center** tried one location unsuccessfully before finding a location that met the needs of their intended clients.

### Addressing Veterinarian Barriers to Providing Care: Easy to Access Locations



Easy to access locations are complex when considering how they address a practitioner's barriers to providing veterinary care. Regarding financial sustainability of the practice, the placement of business location is vital, just in the same way as a traditional practice; however, the goal of this model is to serve a geographically or culturally marginalized group, which suggests accessing an untapped potential clientele. The financial sustainability of this model relies on the capacity of the unserved population to pay, so consideration of both need and resources should be used when developing a strategy around easy to access. Combining other approaches, such as subsidized care or specialized basic care can complement this approach. Such a combination is seen by Beth Sperry at Back Roads Spay and Neuter, which uses Maine's subsidized spay/neuter waiver program in addition to direct client payment at pop-up clinics. Easy to access locations also include locations that specifically serve particular groups, including people experiencing homelessness or non-English speakers. While not an absolute requirement of this model, practices that adapt to make underserved clients more comfortable and serve a higher number of these clients improve implicit bias of veterinarians in the process or attract veterinarians without traditional biases about these clients.

## Models and tools

### **Satellite clinics:**

Satellite clinics are permanent brick-and-mortar clinics that are distant from but linked to a full-service main clinic. The link between the clinics may be that they share the same owner, finances, office staff and services, technical staff, clinicians, or some subset of these. Satellite clinics extend the reach of the main clinic to additional populations with less overhead than creating an entirely independent clinic in the new location. Generally, satellite clinics offer a subset of services and refer clients to the main clinic for more complex services or services that require expensive equipment. This way, the satellite clinic can be run with only minimal staff and veterinarian(s). In some models, the satellite clinic is only open a few days a week or only has a veterinarian on site a few days a week to further minimize operating costs. A new location does add to overhead costs, but satellite locations try to minimize these costs. Initially satellite locations may rent a small storefront location with minimal renovation until the viability of the location can be assessed, rather than building a custom facility that may need to be vacated and sold if it is



discovered that it is not viable. In models where the satellite location is economically depressed, easy to access locations pair well with subsidized care models. Satellite locations have also been used to support newly graduated veterinarians and let them discover if a new location can support them as an independent practice owner, as in the case of **Makefield Animal Hospital of Yardley, PA**. If a satellite clinic is comparably profitable to the main clinic, an associate veterinarian could purchase the clinic to develop full-scale services; thus, increasing the veterinary infrastructure in a new area. As permanent brick-and-mortar clinics, satellite clinics must meet all licensing standards for the state.

### **Pop-up clinics:**

The pop-up clinic model further reduces the overhead of adding a new location by creating a temporary clinic in an underserved location. Often these clinics are set up at a school, church, animal shelter, community center, or even in a tent. Pop-up clinics are most often done in partnership with a non-profit or public health organization to provide services for clients who cannot afford care. As such they generally provide vaccines and a few limited services for free or a nominal fee, and veterinarians and technical staff often volunteer their time. Because these are temporary clinics which may not have cages to hold pets, offering inpatient services or lengthy diagnostics may not be possible. Similarly, it may not be practical to offer services that require a lot of equipment like radiology or surgery (though pop-up spay/neuter clinics using inhalant anesthesia are relatively common and some locations that are visited regularly may store equipment between visits). Transporting equipment to the site can be difficult and result in damage to the equipment. In addition, the site may not be secure enough to leave equipment there if the clinic is scheduled for multiple days. While free or low-cost pop-up clinics might be run by veterinary practices without the aid of a non-profit or public health agency on the side as a way of giving back to the community, running this sort of pop-up in remote areas requires planning in logistics, advertising, legal requirements (licensing, liability, and permits), and time away from the clinic.

While it is possible for these clinics to charge full fees for services and become a true business model that extends services to a remote location, we have not found an example of that. As a business model, a pop-up clinic would be similar to a satellite location in that it adds less overhead cost than a permanent full-service clinic and extends services to a population that cannot normally reach a veterinarian. Pop-up clinics add even less overhead than satellite clinics. Pop-up clinics combined with subsidized care, spectrum of care, and specialized care include **Rural Area Veterinary Services, Sovereign Nations Veterinary, Street Dog Coalition**, and **Back Roads Spay Neuter**. We have not found any pure easy to access location model examples of pop-up clinics.

### **Mobile clinics:**

Mobile clinics help bring care closer to the owner so their pet can receive care. Vehicles may be vans or buses fitted to provide surgical care or cars with minimal equipment to perform medical care only. All mobile clinics we found offer basic care, such as wellness examinations and vaccinations; however, many provide more comprehensive services including sick animal care, and medical management of chronic conditions. Specialized mobile clinics provide spay/neuter, basic soft-tissue surgery, and dentals. Mobile clinics help owners unable to travel, without transportation or carriers, lacking someone to help load, or with fractious and stressed animals. However, without the interest of staff, mobile clinics might not be feasible for most clinics to simply add on.

April Ward of **Heal House Call Veterinarian** provides mobile care to both full-pay and subsidized clients and values the comprehensive view and better communication she gets from meeting clients and pets in their homes. She feels that seeing limitations in-person makes her better able to tailor treatments to the situations and abilities of her clients resulting in better care for pets. People who are elderly and mothers with young children particularly use and appreciate her services due to their decreased mobility.

### **Extra hours or No appointments:**

Extra hours may help clients access care around work hours. While helpful for emergent problems that happen at any time, extra hours also help for regular care when clients are unable to leave work during the day. Many practices offer extra evening hours on some days and limited weekend hours, without realizing they are providing a vital access to care service. No appointment and walk-in care enhance this service by making care easier to access for owners who don't work regular schedules or get their schedules weekly and have trouble making appointments. Walk-in care is also useful to clients with executive function challenges that make planning ahead difficult. Regular shifts should be maintained for veterinarians and other staff, even without regular appointments, with doors closing on time and clear client communication of how to find care elsewhere or come back for care another time. Practices using the walk-in model have developed different methods to address challenges for clients including a queuing system and text alerts to allow clients to go home when the wait is long (**Gateway Animal Clinic, Cleveland, OH**) and some reserved spots for clients with transportation and other barriers (**Dumb Friends League, Denver, CO**). These clinics also have some appointments for special cases of lengthy procedures when time is not a barrier for clients. While the walk-in model can be stressful for staff and veterinarians due to the uneven demand for services, some clients find it encourages them to seek care for less severe problems.

### **Drop-off or day appointments:**

Drop-off appointments allow owners to fit pet care into their schedule. Owners can drop their pets off at a specified time and pick them up later that day. Drop-off appointments promote accessibility through accommodating busy or inconsistent client schedules and allowing veterinarians to see more patients in one day by minimizing down-time. This format is used for wellness visits, surgery, dentals, and sick visits that are not emergencies. With drop-off appointments, clients don't get to be there with the pet, so detailed discussion about diagnostic and treatment options with full use of verbal and non-verbal communication is limited. Lack of communication may lead to compliance issues, missed questions from the owner, inaccurate or incomplete history being collected, misunderstandings about options available and choices made, and increases in client complaints. Veterinarians can overcome these drawbacks by consciously spending time on communication with drop-off appointments and using drop-off appointments with clients for whom there is already a good veterinary-client-patient relationship (VCPR). Both clients and veterinarians tend to either love or hate these appointments.

### **Inclusion:**

Inclusion as a mission for a veterinary practice can take different forms depending on the community the practice serves. The model of inclusive practice brings in more clients, builds loyalty, and increases frequency of visits for care by being welcoming to clients who do not typically feel comfortable or welcomed in veterinary clinical settings. Like other easy to access models, inclusion brings more clients to the practice. Inclusivity includes: the individuals working at a practice, aesthetics, language used, representation of diversity, physical accessibility, willingness of all persons to learn and change, and presenting respect for all clients, pets, and co-workers. When clients feel comfortable coming to and talking with their veterinarian, pets receive medical care sooner and potentially find issues early on when they are easier to fix or prevent. Inclusion also helps people feel seen and heard, which may increase compliance and trust. Inclusion in a diverse population cannot be done without input from those affected, so partnership with and recruitment of individuals to learn from, who know the clients a practice is intending to serve, is ideal. Inclusive practice may have costs associated with changing the building, processes, and staff, and with spending more time in communication. Inclusivity requires a conscious

effort and commitment and should not be done for appearances or only by some individuals in a practice, or it will not work as a business model. **Emancipet** has made inclusion part of its mission by recruiting diverse employees, always providing multilingual staff, and training to all employees in bias and inclusion. Other practices we spoke with provided multilingual staff and practiced in settings more comfortable and familiar to their clients like their homes, outdoors, or in community centers. Additionally, **AlignCare** and **Neighborhood Pets Resource Center** provide liaisons for clients to help them through getting appointments and accompany clients to appointments to help improve communication between clients and veterinarians. A rather novel method of inclusive veterinary practice is in accepting barter of goods and services for veterinary care. Dave Pauli reported that this was used successfully in remote Alaskan settings by Eric Jayne. Caution needs to be taken with this method in appropriately valuing and documenting exchanges with a knowledgeable accountant.

## Summary

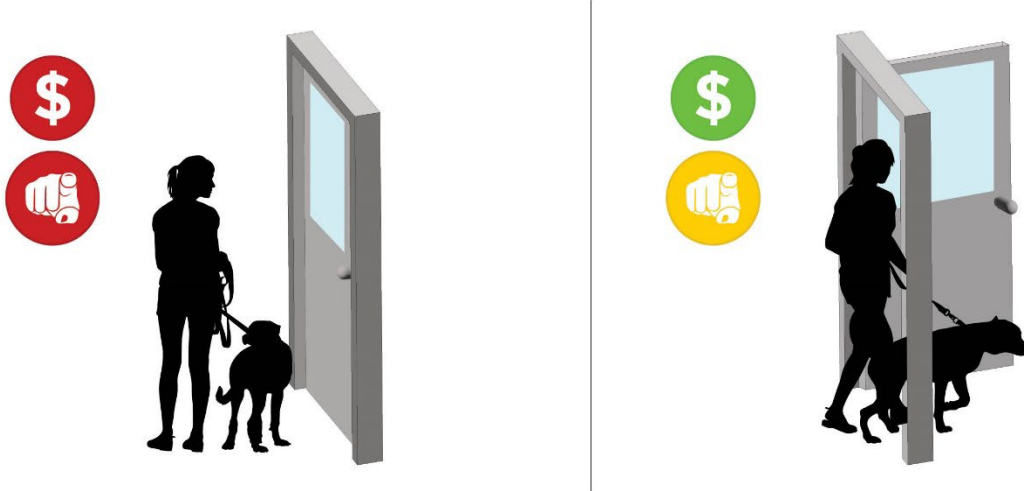
### **General Pluses:**

- Mobile, pop-up, and satellite clinics have a lower overhead than traditional clinics, so they extend the reach of veterinarians with minimal extra expense.
- Inclusion, no-appointment, drop-off appointment, and extended hours models create more transactions without changing the location of the practice.
- Easy to access locations allow clients to access veterinary care with more flexibility than traditional models and address barriers like geography and language not addressed by other AVC models.
- Easy to access locations can be combined with specialized basic care and subsidized care to serve large volumes of pets.
- This model has the potential to be implemented with relative ease as a supplement to the traditional model. For example, a traditional clinic could modify their hours to be open late once per week.
- Easy to access models do not rely on reducing costs for clients so they have a neutral impact on average transaction costs.

### **General Minuses:**

- Depending on the sub-model of easy to access locations, VCPR can be less intimate than the traditional model and afford less continuity of care if clinics are transient.
- Overhead will increase in many easy to access location models.
- Knowing the needs and barriers of the clients the practice intends to serve is necessary to prevent wasting resources on things that are not needed or wanted.

## SUBSIDIZED CARE



Subsidized care in veterinary practice aims to improve access to care for pet-owners who are resource limited by offsetting costs with funding from another source. As such, subsidized care is a funding model. However, businesses using funds from multiple sources use them more often and more successfully if their business operations are modified to streamline use of subsidies and identify sources of subsidies, making it a business model as well. Subsidized care strategies can be applied to different practice models: shelters, spay/neuter clinics, non-profit hospitals, satellite clinics, and general practices. Approaches to subsidized care can be organized into the following general categories: internal subsidies, in which the practice has measures in place to subsidize itself; donor subsidies originating from grants or private donations; and partner subsidies, which includes partnership between practices and government and/or non-profit organizations.

There are two main advantages to a subsidized model for AVC. One, the practice is still getting full price (or near full price) for services. Two, the cost is not borne by the client. Ideally, this model allows veterinarians and clients to choose the best options for care and use other sources of money to make up the difference between what the client can pay and what the care costs. Obtaining the money from other sources, documenting spending of that money, balancing the amount of money available for subsidy with the deficits in income for care delivered, and determining who gets subsidized care are the biggest challenges with this model. In most cases we interviewed, external subsidies did not make up the full difference between the usual cost of care for clients and the amount the client was able to pay, and practices absorbed some of the cost by self-subsidizing with or without tracking the self-subsidy as a donation. To be a sustainable business model, subsidized care needs to be aware of the self-subsidy involved and determine how much can be comfortably accommodated.

Subsidized care models require a decision of who gets how much subsidy. Most practices we interviewed require means testing, with a small portion operating on an honor system or zip code. A means test is a criterion defined by the practice with adequate documentation provided by the pet-owner (SNAP card, reduced cost school lunch program, and declined CareCredit are all examples we found) that is used to determine whether a client can use subsidized care. Interviewees all agreed that veterinarians should not try to do means testing themselves within the context of a visit for care because it can be stressful and build distrust between the veterinarian and client. Means tests can be handled by office staff in the practice or a non-profit partner that refers qualified clients to the practice for subsidized care. In various other fields (social work, education, human health) there is extensive literature about the pluses and minuses of means testing and requiring different types of documentation for access to different services.

## Addressing Veterinarian Barriers to Providing Care: Subsidized Care



By removing concerns about cost, implicit bias may be reduced. However, implicit bias may still impact treatment of subsidized care clients versus traditional clients if veterinarians know which kind of client is standing in front of them. Care and compassion should be extended equally between clients regardless of payment method. The veterinarian barriers subsidized care addresses most compared to a traditional model are financial sustainability of the practice and veterinarian stress and burnout. As subsidies allow clients to use external resources to pay for care, this increases clientele of the practice that otherwise would go unserved without reducing practice revenue. Complementing this, giving veterinarians more of a chance to say yes to clients and pets in need preserves compassion and prevents burnout and moral distress.

## Models and tools

### **Self-Subsidy:**

Veterinary practices have different ways of pulling profit from other sources within the practice to support low-cost care for clients unable to cover the practice's full expenses. Corporate practices have a unique ability to do this because of their scale so that they can shift profits in one area to cover deficits in another. While independent veterinary practices cannot do this to the extent that corporate practices can, they can subsidize themselves intentionally on a smaller scale.

Need-based pricing scales determine service costs to clients based on the financial means of each client. For example, a general practice might determine that a client whose total household income is less than \$20,000 per year qualifies for 70% subsidized cost and a client with household income less than \$35,000 per year qualifies for 50% subsidized cost. Some clinics successfully perform need-based pricing using the honor system, but these are often also high-volume spay/neuter or preventive care clinics. Means testing is used in practices that offer a wider range of services to clients with different incomes. It is not intended for need-based pricing to affect the prices for all clientele, only for those who cannot afford veterinary care. Using need-based pricing alone as a business model, the financial burden of some reduced transaction costs is offset by full-priced transaction costs for most clients. A structured approach to need-based pricing targets pet-owners who are willing and able to show proof of their qualification and able to pay some amount for services. In this model, the impetus is on pet-owners to show proof of qualification, which decreases the time and energy demand on practice staff to determine who is eligible.

Historically, some veterinarians have operated by reducing costs on a case-by-case basis, accepting the payment that a client could afford for services provided to a pet based on personal knowledge of the client's financial means or based on individual judgements in conversations with clients. The latter method, based on individual judgements and (often) client and clinician emotional state, can be very stressful to some veterinarians and introduce bias in decisions of who gets subsidies. Incorporating deliberate need-based pricing into business models improves tracking so that discounts are consistent and are not above what can be absorbed by profits from full-pay clients. An organization that aims to mentor clinics regarding self-subsidies and other modes of subsidized care is **Open Door Veterinary Collective**, which uses principles learned from its two for-profit clinics, **Open Door Veterinary Care** and **Community Pet Care Clinic**.

**Criteria and procedures for using funds and adjusting prices should be written out by the practice for the purpose so that implicit bias is limited and funds are used consistently. Part of this protocol might include a defined purpose statement regarding how the services provided correspond with the practice's values.**

Another self-subsidy model relies on strategically marketing low-cost care. A practice may choose to offer basic services like wellness exams and vaccines at a break-even rate or at a loss for the entire practice to establish a relationship with clients who will later use more appropriately priced services. This is particularly helpful for puppy and kitten services where several booster vaccines are needed, and a long-term relationship can be built. While this model provides basic care to those looking only for low-cost basic care, it also markets the practice to those who might be willing to pay for additional services but see cost as a barrier to beginning a veterinary-client-patient relationship. However, balancing the loss on some services with the gain in additional clients is difficult and should be considered only with careful tracking. Thrive Pet Healthcare will be piloting a program with low-cost care subsidized internally. They will track amounts expended and business gained with preliminary data, supporting the possibility that the program will break even. An additional form of self-subsidy comes from practices that also offer products for sale and peripheral services like grooming and boarding. Getting clients in the door with low-priced veterinary services may be augmented by purchases of other items or services with standard pricing. Conversely, other services may bring in clients who would not otherwise plan to access veterinary care. Veterinary practices using self-subsidy models that offer services below cost to the practice should clearly communicate their intentions to other veterinarians in the same market and consider using some form of need-based pricing to reduce concerns about unfair competition.

### **Donations:**

Donor funds are simply donations given on behalf of an individual or organization for the purpose of providing care to individuals that fulfill the intended purpose of the donation. Sometimes donations can be ear-marked for specific purposes, such as emergencies for pets with owners who can't afford care or supporting diabetic patients. Most often, donations can be used at the practice's discretion, although separate tracking of such funds is essential. Many practices accept client donations through a formal or informal "Good Samaritan Fund". Other practices sell merchandise as a fund raiser or have a policy of asking clients to round up their bills to support other clients. Some clients also simply pay the bill for another client in need when they observe the need with no action from the veterinary practice.

Models based on donations work best in communities with mixed incomes or for satellite clinics in low-income areas that are paired with practices in high-income areas, as this allows for philanthropy from a wealthy populous to support the pet care of those experiencing financial hardship. Having an established donor fund allows practices to increase AVC via fundraising. Incorporating community engagement and fundraising for the purpose of providing care to resource-limited owners can benefit the practice's brand as well as provide care to more pets. Donations and their use at private practices might require a client to fulfil qualification requirements. Shelters and non-profit organizations often rely heavily on donations for the cost of providing basic veterinary care, but in the private practice context, donation funds are often used for expensive but lifesaving treatments of pets that come from a finance-limited household. In theory, private practices could use donor funds for either situation, and deficits in income from reduced-cost care could be supplemented through donations. In practice few veterinary clinics have enough donor funds to use them for every client who needs them.

Donation funds must be formally recorded and tracked separately from business funds to ensure the integrity of their use and prevent legal problems. It is recommended to create a 501(c)(3) organization to manage donations and related taxes separately from clinic profits. In setting up protocols to use donor funds, practices should establish clear, easy-to-follow criteria and make sure that all donors and practice staff understand the rules. Intermittent group discussions about the funds and how to use them, and possible adjustments to the rules if existing protocols are not working well will help to improve use of these funds. For most clinics, the amount that they can raise internally is limited and staff do not have the time to focus on building donations through fundraising, so a 501(c)(3) organization may not be needed.

An option beyond raising donor funds within a practice is partnering with an existing non-profit that already raises funds for veterinary care. Many existing non-profits have staff devoted to fundraising and grant writing and can assist veterinary practices by providing donor funds to supplement deficits between the cost of care to the practice and the amount that clients can afford. Some funds are relatively easy to access. In Maine, for example, the state collects donations and passes them on as vouchers for spay and neuter services from any veterinarian in the state. In Rhode Island, a portion of veterinary license fees go into a fund for each veterinarian in the state that can be accessed up to the annual maximum for subsidizing care. In some areas (Cleveland, OH, and Bay Area, CA, in our interviews), there is a complete ecosystem of non-profits providing subsidies for veterinary care with different criteria and funding amounts, such that just keeping track of and requesting the available resources can pull a significant amount of staff time. We hope that efforts to facilitate the process of using existing external donor funds by **AlignCare** and others will make these funds more available to busy independent veterinary practices. Even without making use of all available resources, individual partnerships between non-profits and for-profit veterinary practices can be mutually beneficial.

### **Fee-for-Service Contracts:**

Fee-for-service contracts are for services that improve public health and augment local government services. These contracts exchange taxpayer or donor dollars for specific services provided by a practice. On a local scale, this method of subsidized care is typically used by practices that aid in management of feral companion animals or animals seized by law enforcement. Most often veterinarians provide these services on a volunteer basis or at a greatly reduced cost. However, there is potential for broadening the scope of this funding source to companion animal private practices and other veterinary non-profits for providing low-cost spays and neuters and other essential veterinary services to underserved pets. Loan reimbursement and grant programs exist through USDA for food animal veterinarians providing general services in underserved areas. The Type II designation for the Veterinary Medicine Loan Repayment Program (VMLRP) through the USDA requires rural service in a designated shortage area that is at least 30% (12 hours per week) food animal medicine, so veterinarians using VMLRP in Type II shortage areas can also serve pets with part of their time and benefit from this subsidy. No similar national programs are available for companion animal exclusive private practitioners, but the Type III (at least 49% public service) shortage definition allows a local or state government or non-profit to recruit a veterinarian for companion animal preventive services that contribute to public health. An additional public health focused national program provides student loan repayment to veterinarians serving public good through non-profit practice. However, government decisions for funding are outside of individual practice control, so they cannot be relied upon completely.

### **Grants:**

Grants are monetary awards given to practices who apply, demonstrate qualifications for the award are met, and are chosen amongst an applicant cohort to receive funds. AVC-related grants offer a unique approach to care subsidies because they are given by a third party based on merit. Unlike donor funds, much of the effort of fundraising is done by an external entity, but competitive application procedures may be difficult for veterinary practices. Often, grants are given to practices that already incorporate



AVC strategies like spectrum of care or specialized basic care into their philosophy. Specifically, funding organizations such as Kenneth Scott Charitable Trust, Maddie's Fund, PetSmart Charities, and American Society for the Prevention of Cruelty to Animals, target existing non-profit organizations. So, if practices already are registered 501(c)(3) organizations with a focus on AVC, there would be benefit in pursuing this model of subsidized care. However, any practice that meets the specific application criteria may apply for grants, which may include non-profits, private practices, or shelter organizations. Recently, the American Veterinary Medical Foundation has established the National Veterinary Charitable Care Grants aimed at augmenting care at private practices. Additionally, a bill passed through the Ohio Legislature in 2021 to provide grants for veterinarians who volunteer in government or non-profit organizations.

### **Partnerships:**

Joint and sustained partnership of clinics may improve health outcomes for targeted populations. While in the case of satellite clinics there is a main clinic and satellite clinics that have the same owner, partnerships are between clinics that run independently and simply partner for a particular purpose. A high-resource clinic can aid in the efforts of a low-resource clinic through *pro bono* work, grants, equipment sharing, or expense sharing. In another model used by **Animal Fix Clinic**, a full-service clinic sends clients without means to a low-cost, non-profit clinic for vaccines, sterilization, and simple sick care, and the non-profit clinic sends clients with means and complex cases with subsidy to the full-service clinic. This is not simply a volunteer relationship between a veterinarian and a shelter, but an intentional business practice that promotes sustainable care at all partner clinics.

Historically, the process of twinning was a specialized partnership used as a tool for international reconciliation during post-war time, with national health organizations partnering with other national organizations to work towards the same goal, such as improving diabetes care or ensuring water sanitation.<sup>11</sup> In the veterinary context, this concept is still a frontier, but twinning is a promising concept. One example is joint efforts between **The Ohio State University** and **Gigi's Shelter** to study parvovirus therapy and improve parvovirus outcomes in dogs through new facility programming. In this case, the high-resource university clinic provides expertise and personnel, and the shelter clinic provides training opportunities for students and research opportunities for faculty. While not exactly replicable in private practice, other possibilities for twinning could include partnership with private practices.

Partnership of private practices with community resource centers to establish vaccination programs in underserved areas; partnership between municipalities and private practices to improve basic care of owned pets in underserved areas; partnership between multiple clinics to broaden geographic reach of clinical practice; use of Good Samaritan Funds from a high-resource clinic to support care at a low-resource clinic; and partnerships between non-profit and for-profit practices to maximize delivery of care to all pets in their community all are used to expand AVC.

## Summary

### **General Pluses:**

- Subsidized models can be flexible. Depending on the amount of subsidy, practices may be able to adjust how many cases they can serve and what services are to be subsidized. Even a small donation can improve care for one pet.
- Level of care and type of practice does not necessarily need to be changed or adjusted, and existing clinical staff are able to continue to provide care as they normally would. Some subsidies require discounted services or attention to cost, but some do not.
- Practices can offer service to their previously established clientele in addition to new clients qualifying for subsidized care.
- Subsidized care has the potential to be leveraged into more unsubsidized transactions for the practice.
- Subsidized care reduces difficult conversations and moral distress around not being able to provide care due to cost alone.

### **General Minuses:**

- Practices that have succeeded in using subsidies often have administrators with special knowledge of subsidies available or time committed to raising funds.
- Models requiring proof of need or proof of low-income status may be seen as a deterrent by clients and have an aspect of shame or embarrassment for both client and practitioner.
- Additional documentation and steps are needed to secure finances either through non-profit status, grant applications, or government funding. Some sources are easier than others.
- Sources of funding may be inconsistent or unstable and subject to change, or only available for a limited time based on whims of donors or government budgets.
- Programs and funding sources that require proof of need from clients invariably exclude those who do not use government benefits, banking, and documented sources of income.

## BARRIERS TO ACCESSING VETERINARY CARE

### Client Barriers:



**Cost of Care** - Cost is by far the most cited reason why clients do not use veterinary services. In addition to inadequate disposable income, the perception of the cost-benefit of service can limit care as well. This barrier may be exacerbated by rising veterinary costs. According to the 2017 American Veterinary Medical Association (AVMA) Report on the Market for Veterinary Services, cost of care is increasing faster than the rate of inflation, with an annual increase averaging between two and six percent since 2010<sup>1</sup>. Many factors influence the cost of providing veterinary service, but the AVMA Market Report suggests increased market prices correlate with declines in pet visits, so they are a barrier to access. The University of Tennessee's Access to Veterinary Care Coalition (AVCC) reports that upwards of ninety percent of pet owners whose pets do not receive care name cost as a barrier. A recent PetSmart Charities report estimates that only about 15% of pets receive the most advanced and expensive care, but that these pets represent about 37% of spending on US veterinary care. To contrast the most advanced and expensive care, requests for "economic euthanasia" (where euthanasia is chosen over care due to financial limitations) are rising at a rate of 10 to 12 % per year<sup>2</sup>. One veterinarian in Virginia estimated that 2/3 of euthanasia requests are based on economic concerns<sup>3</sup>.



**Culture** - Cultural context and backgrounds of clients can limit veterinary care of pets. The human-animal bond has been described in very diverse cultures and settings, but this bond looks different in distinct cultural contexts. Some cultures, though valuing and bonding with companion animals, do not see veterinary care as a part of caring for pets. Culture here is not limited to foreign cultures but includes sub-cultures within the broader American culture. This sort of cultural barrier prevents clients from visiting veterinary clinics. Additionally, cultural differences might lead to discomfort in the exam room if these differences are not handled in a sensitive manner.



**Lack of Accessibility** - Some veterinary clinics that do not have appropriate resources might pose difficulty for people who are differently abled. Such resources might include requirements of the Americans with Disabilities Act and local ordinances like wheelchair ramps and braille signage. Additional accommodations that may not be as apparent include inclusive communication strategies that improve access for people who experience disability, walk-in hours for people with executive function challenges, and sensory-friendly waiting areas.



**Geography** - Physical distance can be a barrier to clients visiting veterinarians. As discussed in the Easy to Access Location section of this report, veterinary deserts exist in many parts of the United States. It takes more time and resources to travel far distances versus having a community resource, and sometimes crossing this distance is not feasible for clients.



**Fear of Judgement** - Feeling shame or guilt that they are not providing appropriate care for their pet or will be perceived as not being good pet owners can lead to client isolation and avoiding veterinary care. Such feelings can be compounded by other barriers, such as cost or cultural barriers, and can grow from negative experiences in veterinary contexts or from the client's own thoughts and feelings.



**Language** - Language can act as a barrier between clients and veterinarians. While language might not explicitly prevent a client from accessing a veterinarian, it can impede the ability to establish a good veterinary-client-patient relationship (VCPR), and limit communication of important details regarding veterinary care. Anticipation of language problems may be enough to prevent or delay clients in accessing care.



**Time of Day** - Some clients have other commitments that overlap with standard veterinary workday hours, limiting their access to veterinary care. A common reason for such a time barrier is clients who work jobs with long or unpredictable hours, for whom making an appointment in advance can be problematic. Veterinarians are no strangers to long work weeks, and such requirements in other occupations can interfere with a client's ability to access clinics at standard or planned times.



**Transportation** - Clients without means of transport, whether that is personal or public transportation, have increased difficulty accessing veterinary care. Animals that are not service animals and cannot be contained in a carrier are barred from most public transportation. Transportation services beyond public transportation might be non-existent, expensive, or not reliable. Additionally, transporting a pet to a veterinary clinic requires the client to catch and contain the animal. Not every client has the means of catching and containing their pet due to the client's physical abilities, the pet's behavior, and the lack of equipment needed.



**Sources of Information** - Information available widely by way of public education, social networks, blogs, pseudo-science literature, grey literature, and popular media varies in quantity, quality, and usefulness when it comes to veterinary care. Client backgrounds may also vary regarding exposure to trustworthy information about what veterinarians offer, why it is important, and when services should be sought.

## Veterinarian Barriers:



**Fear of Litigation** - The threat of legal action, whether real or perceived, can instill fear in veterinarians and influence veterinary practice decisions that impact access to care. This issue is particularly salient when the veterinarian is uncomfortable making a treatment decision without the aid of expensive diagnostics. The fear of being wrong and causing harm or being perceived to have caused harm may be a barrier to lowering the cost of veterinary care.



**Financial Sustainability of Practice** -It is important for a veterinary practice to remain financially viable in order to pay staff salary and ensure providing pet care may continue. When cost is a barrier to a client, it might not be financially sound for a practice to provide reduced cost care. The perception of choosing between profitability and providing access to veterinary care continues to exist in many veterinary circles. While solutions such as subsidies and alternate payment options exist, the distribution of these tools varies.



**Perception of Care Standards** – While Veterinary Practice Acts define standards of veterinary care flexibly to allow for interpretation, veterinarian perception of practice standards can be strict. The perception of a standard of care may come from a veterinarian’s academic training, from experience with mentors, or from guidelines published by veterinary organizations. If a veterinarian perceives that they cannot deviate from a strict and expensive standard of care without harming their professional identity, they may not be able to provide good care to clients with financial limitations or different care goals. Some veterinarians and clientele might believe that certain AVC models do not align with their standards. While veterinarians should only deliver care that aligns with their internal ethical standards, the perception of external standards and penalties may be an artificial and removable barrier.



**Implicit Bias** - Implicit bias can lead veterinary professionals to make assumptions that limit their ability to recognize the reality of client and pet situations. Such forms of bias might cause a veterinarian to over or underestimate the impact of the client barriers listed above, fail to accurately assess a pet, and not offer a full range of options or accommodations.



**Personal Finances** - As student debt is cited as a major financial concern for veterinarians, there becomes a growing conflict of interest between prioritizing high-income care *versus* accessible care. The perception of profitability of certain approaches to veterinary care-- such as specialization and high-cost care-- might relieve veterinarians of their debt or be perceived as a better means of relieving debt than focusing on AVC by providing low-cost care or care in an underserved area.



**Work-Life Balance and Stress** - While many veterinarians invested in improving AVC are rejuvenated by the impact of their work, other veterinarians might feel too stressed, burnt-out, or unsupported to attempt AVC in their practice. Models of care that emphasize high volume or 24-hour service are, by their nature, stressful and can decrease work-life balance if not done carefully.

## PERIPHERAL ISSUES

### **Insurance, payment, and package plans:**

While insurance and payment plans might not explicitly increase AVC for underserved clients, they make it easier for clients planning to pursue care to manage the cost of that care or use more care. Standard pet insurance plans tend to serve clients who already are accessing care and help them manage unexpected high-cost care. Though these plans are marketed to less well served clients, data do not yet support insurance being used by these populations. CareCredit and other payment plans help with spreading out the bills for care over a longer time but charge interest on balances carried and may use punitive debt collection processes for bills that go unpaid. For some clients with regular income but not high income, payment plans are used and help veterinary practices to offer services without subsidizing them. Though payment plans are used by clients with cost barriers, their overall impact on the wellbeing of those households is less clear. Some practices offer package service plans with advertised costs to help clients who worry about the expense of care to plan for the costs, spread costs out over the year, and easily choose from limited basic care options like vaccines and screening tests. Additionally, package plans are useful from a business perspective for their ability to be marketed. The role of insurance, payment, and package plans in increasing AVC is unknown, but they do seem to increase use for sick and injured pet care if the plans cover a limited number of additional visits or telehealth services. As such, this tool can be used in Spectrum of Care, Easy to Access Location, and Subsidized Care models. They are less useful for AVC in the Specialized Basic Care model where one service is all that is offered, and it is often offered at a low price for all.

### **Corporate practices:**

Corporate veterinary practice or consolidation of veterinary practice ownership and management is on the rise in veterinary medicine. To some extent, corporations can simplify and reduce the cost of managing the practice by creating one model and replicating it. With veterinarians in corporate practice acting as employees, rather than independent owners, they can focus on the medical aspects of the business. It appears that we are seeing a certain amount of market segmentation taking place where some corporations are targeting expensive and advanced care markets and others are targeting low-cost and high-volume care. Corporate practices working on the model of low-cost and high-volume model, potentially, could extend access to low-resource clients and their pets, but there are concerns about service quality, work environment, and taking clients away from independent practices. These issues are not unique to veterinary practice but are becoming increasingly relevant in the discussion of AVC.

### **New technology:**

Technology in general is always advancing and veterinary technology is advancing along with it. Some new technology may have the ability to enhance AVC, but many new technologies are still finding their place in veterinary practice. Once established and if supported in the effort, the influence of technology on AVC may be profound. For example, telemedicine and tele-triage could provide limited veterinary care at extremely low costs, address veterinary deserts and transportation issues, and make more diverse clients more comfortable outside of the clinical setting. A few multi-lingual telehealth veterinarians might provide services independent of location and clients might opt to use text messaging, audio, or video as best fits their abilities. However, most of these services are being marketed and used by relatively wealthy and educated clients who use them for their convenience. In addition to telemedicine, other technologies in the pipeline include: voice and text recognition “robots” that can provide limited triage and follow-up (AskVet), wearable diagnostic tools (Fitbark), and direct-marketed diagnostic tools (Wisdom Panel). As with any new technologies in addition to assessing how these increase AVC, the profession will need to evaluate how these technologies influence quality of care and where they are best used.

## **Licensing and liability:**

Questions regarding licensing and liability tend to arise for veterinarians who are interested in improving AVC. While all the models presented here can be practiced within the licensing requirements and standards of veterinary care in all states, there are limitations. Especially when exploring mobile and pop-up clinics, technician appointments, and telehealth, veterinarians should check the veterinary practice act and regulations surrounding the practice of veterinary medicine in their state. Individual state practice acts have been collected by Michigan State University [here](#). In all cases, good client communication and documentation of interactions, diagnostics, and treatments is important for preventing issues related to liability, particularly in the spectrum of care model where different options are offered. In general, veterinary practice acts are vague in what constitutes the standard of care and rely on panels of veterinarians to define whether a particular instance is considered appropriate care. Additional evidence regarding outcomes of different diagnostic and treatment choices will support consensus in the profession, but rigorous scientific evaluation of every possible choice is not feasible and scientific study may not provide support for low-cost options.

## **Veterinary professional associates:**

Many of the people we interviewed and sources we checked mentioned that veterinary technicians are underused and that experienced veterinary technicians can be given more responsibility to extend the reach of a single veterinarian in providing care to more pets at lower costs. Additionally, interviewees mentioned that retention of experienced technicians can be a problem and that technicians are generally underpaid. In these discussions, some individuals very much supported the creation of licensed veterinary professional associates who could provide some basic care with minimal supervision by a licensed veterinarian, like physician assistants (PAs) in human medicine. Others were in favor of more responsibility and pay for technicians without changes to veterinary practice acts.

## **Partnerships:**

Partnerships among veterinary practices and between veterinary practices and government or non-profit organizations are crucial to the subsidized care model and are beneficial to the other models as well. When veterinarians are reaching out to underserved populations, it helps to partner with an organization that already knows that population. Things like advertising, fundraising, means testing, finding convenient space, understanding challenges and opportunities, language interpreting, building trust, and many other aspects of AVC are much easier with experienced partners. Veterinarians do not have to improve AVC alone. [AlignCare](#) is a system for creating partnerships around AVC and assists veterinarians interested in developing subsidized care models. Their website includes free resources as well as opportunities to become part of their network. Outside of AlignCare, many veterinarians have developed partnerships on their own. At times, conflict is created, or opportunities go unused because of a lack of communication among veterinarians and animal welfare groups. For example, Cleveland Animal Protection League offered to refer their clients to participating local veterinarians and provide vouchers for some of the cost of services, but veterinarians didn't sign up for the program. In retrospect our interviewee thought that the problem was in not discussing the program with veterinarians in advance. Other interviewees suggest starting small with individual partnerships between veterinarians or between veterinarians and non-profit partners where both parties benefit from the relationship. Examples where this seems to work well are when a for-profit veterinary practice refers clients in need of low-cost basic care to a non-profit clinic and, in turn, takes referrals for more complex care with or without subsidy from the non-profit. Another common example of successful partnerships is one where a non-profit organizes clients, logistics, and transportation for low-cost or no-cost events with participating veterinarians who have for-profit practices.



### **Curbside and drop-off care:**

During human disease outbreaks, where some people have situations that make it dangerous to contact other people or spend time in public locations, curbside and drop-off care is improving their AVC. In addition, drop-off or day appointments have long been a convenience for working people who cannot take time off for appointments or when practices are booked and may need to work in non-urgent sick care between other appointments. Drop-off does reduce the ability of veterinarians and clients to have conversations about pet care and treatment plans, so it may diminish communication that is so essential to the spectrum of care model. In addition, the lack of personal interaction is off-putting to some clients who might reduce their use of care without the option to have in-person appointments. The long-term effects of increased use of this new (old) type of care on access to care for different populations has yet to be determined, but at least one of our interviewees mentioned it as an absolute positive in being able to care for more pets in a day.

### **COVID-19:**

SARS-CoV-2 has impacted professional and non-professional staffing and increased pet ownership. Many veterinary practices are currently unable to see the patients seeking appointments due to a sudden increase in demand from what they have seen in the past. With this apparent influx of patients, it is unreasonable to assume that transition to a practice model built on increasing the number of transactions like specialized basic care will be feasible. In the case of specialized basic care, the emphasis in current transitions should be on efficiency in use of staff and services offered to better accommodate the volume of clients and patients. There may be a certain amount of market differentiation in the next year(s) where practices that are able will increase their transaction fees for broad ranges of services and target those that can pay them, and other practices will rely on more efficient high-volume models. Once these changes settle out, it may be easier for practices to examine which model and what partnerships and recommendations best fit their situation. We hope that this report will provide resources to all practices so that they can find a way to enhance AVC in their existing situation. At this moment, however, efficiencies and strategies are more relevant than increasing volumes.

### **Ethics of who gets what care:**

In choosing to provide veterinary care at a decreased price, veterinarians need to consider what clinical services should be included and who should get what discount. In some cases, non-profits or corporations make these decisions and ask veterinarians to provide the care that they think is in the best interest of the client and pet. Without such a partnership, practices and veterinarians must consider these decisions. On the side of what care to provide, practices may find it hard to justify subsidizing energy, time, and resource intensive procedures that may have similar outcomes to less costly procedures. Examples would be choosing to repair a fracture versus amputate a limb or choosing to perform elective procedures like preventive dental cleanings. While outcomes for the more expensive care may be better, very few subsidized care programs provide orthopedic surgery or preventive dentistry. In addition to what care is provided, ethical issues come up around who gets services. Different interviewees had different opinions on criteria for providing services from geographically based, to income based (with different methods of checking), to open for all. Such a conflict also relates to implicit bias if certain subsidies are unconsciously granted to certain situations over others. Checkpoints to avoid undue subconscious influence such as standard operating procedures and systems for categorizing care are helpful in the business plan and should have clear buy-in among veterinarians and staff in a practice. If what care is given and who gets subsidies is not clear, the lack of clarity may create moral distress and ethical exhaustion in veterinarians and non-professional staff.

## **Students and access to veterinary care**

The high volume and types of medical conditions seen in AVC settings make them ideal for experiential learning. Because of this advantage, shelter and outreach programs are now commonly affiliated with or run by veterinary medical schools. Because students are getting training in these settings, and often paying for the opportunity, clients can pay less for services delivered by a trainee under supervision of an experienced veterinarian. Ethical issues arise around the quality of services offered by inexperienced trainees and possibility of taking advantage of clients who would not want services from a trainee but are forced to receive these services because of their financial limitations. Largely these ethical concerns are theoretical and not expressed by those receiving services, but mindfulness of the issue is important for program directors. Additionally, experienced veterinarians training students in these settings find that their productivity is decreased (50% decrease reported by Elizabeth Berliner) due to the need to be supervising students, rather than the students increasing productivity as might be assumed. New methods of training students in clinical settings are being explored and expanded (see Fingland et al. 2021, for instance) and will continue to be part of the AVC discussion. However, the student tuition subsidy and primary mission in education limit how they inform discussion around business models outside of academia. Thus, these programs are largely excluded from our report.

## GLOSSARY OF TERMS

**501(c)(3)** – 501(c)(3) refers to a section of the Internal Revenue Code that allows organizations to operate exempt from taxes and offer tax-deductible contributions to donors if they meet specific conditions. While there are other ways to set up charitable organizations, this is a relatively easy path that accommodates most types of organizations that a veterinary practice might want to set up.

**Access to Veterinary Care** - Access to Veterinary Care is an ethical concept that simply means that the scaffolding of the veterinary medical industry should allow for all pets to receive clinical and preventive care and preserve a minimal standard of welfare. “Lack of access to veterinary care is a complex societal problem with multiple causes, with socioeconomic status being an important factor.” (AVCC, 2018) Three important points need to be mentioned here. First, while low-cost care and free care are part of access to veterinary care, there are other barriers to care that cannot be ignored. Second, while this report and most reports on this subject focus on access to veterinary care for pet cats and dogs, access to veterinary care is an issue for all species, perhaps more so for unusual and exotic species. Third, while access to veterinary care in our definition focuses on a minimal standard of welfare, equitable delivery of care to all animals, though infeasible at this time, might be considered the goal of access to veterinary care and is building some traction as a facet of social justice.

**Advanced and Expensive Care** – Advanced and expensive care is the term we use to counterpoint low-cost care. While prior terms used for this concept are “gold-standard care” or “best practices”, advanced and expensive care is considered less judgmental and presents the idea of using more costly or more complex diagnostics and treatments, when other acceptable options may be available. While advanced and expensive care may improve some combination of diagnostic accuracy, early diagnosis, maintenance of full function, time to recovery, and longevity, the trade off in overall animal welfare (or human and animal welfare holistically) between advanced and expensive care and low-cost care is considered to be acceptable as the terms are defined here. While tertiary care clinics often practice advanced and expensive care, the term is not limited to tertiary care.

**Care Plan** – Care plans (also called wellness plans) can be offered by veterinary practices, veterinary service discounters, or pet insurance providers. These plans lump preventive services like vaccinations with regular examinations and screening tests as well as limited sick care visits into one plan that is billed as a monthly or annual fee. These plans may cover exam fees for sick visits, but do not include additional diagnostics or treatments as a result of sick or emergency care. Some plans also include flea-tick and other anti-parasite medication. Some plans also include telehealth services and subscriptions to client education and wellness materials. These plans break out expected costs into regular payments to help clients with budgeting. The only risk taken on by the practice or company offering the plan is in the changing costs of materials and overhead that might increase the price of services between when the plan is purchased and when the service is delivered.

**Corporate Veterinary Medicine** – Corporate veterinary medicine is a type of practice in which a veterinarian works as an employee for a company or corporation. [The Virginia-Maryland College of Veterinary Medicine’s Center for Public and Corporate Veterinary Medicine](#) emphasizes corporate veterinary medicine as applying to biomedical, pharmaceutical, and food production corporations. In the context presented here, we are referring to veterinarians working as clinician employees for corporations that provide companion animal veterinary clinical care. We do not make a distinction here of what constitutes a large corporation as opposed to a small group of practices managed by one individual or

company. Clearly Banfield and VCA are large players in this area, but there are many smaller companies, start-up companies, practice groups, and franchises that have some advantages and challenges similar to large corporations and some attributes more like individual private practices.

**Diversity** – “Psychological, physical, and social differences that occur among any and all individuals; including but not limited to race, ethnicity, nationality, religion, socioeconomic status, education, marital status, language, age, gender, sexual orientation, mental or physical ability, and learning styles. A diverse group, community, or organization is one in which a variety of social and cultural characteristics exist.” (The National Multicultural Institute)

**Emergency Care** – Emergency care is sick care that is acute and requiring immediate attention. Another term for emergency care is *secondary care*.

**Equity** – “The term ‘equity’ refers to fairness and justice and is distinguished from equality: Whereas equality means providing the same to all, equity means recognizing that we do not all start from the same place and must acknowledge and make adjustments to imbalances. The process is ongoing, requiring us to identify and overcome intentional and unintentional barriers arising from bias or systemic structures.” ([National Association of Colleges and Employers](#))

**Fixed Costs** – Fixed costs are overhead costs that remain constant in the short term and are predictable. These are expenses that the practice pays somewhat regularly independent of how many client interactions they have. Examples include, rent on buildings and equipment, salaries, depreciation of equipment, property taxes, and practice insurance.

**Good Samaritan Fund** – A good Samaritan fund or “good Sam fund” is a collection of money and/ or materials that a veterinary practice can create to allow clients to support other clients and pets in need. Clients who overpay bills, have unused medications, have unneeded pet supplies, or wish to make direct donations can donate their money or items to the Good Samaritan Fund. Those dollars and items can then be used to support other clients and pets at the same practice. The implementation and success of these funds varies widely.

**Hospice** – “Animal hospice is care for animals, focused on the patient’s and family’s needs; on living life as fully as possible until the time of death [with or without intervention]; and on attaining a degree of preparation for death. ... Hospice exists to provide support and care for patients in the last phases of an incurable disease, or at the natural end of life. Hospice definitely incorporates all of palliative care; and is defined as a philosophy, a specialized program of care, and in some instances, an actual place for the dying.”([International Association for Animal Hospice and Palliative Care](#))

**Inclusion** – “The act of creating environments in which any individual or group can be and feel welcomed, respected, supported, and valued to fully participate. An inclusive and welcoming climate embraces differences and offers respect in words and actions for all people.” ([AAVMC Diversity Equity and Inclusion Glossary](#))

**Incremental Care** –Incremental Care is “ a case management strategy that utilizes the intuitive judgment of the veterinarian to develop a tiered diagnostic and dynamic therapeutic options over time approach. Non-critical procedures are avoided to help control costs. It relies on the clinical judgment of the veterinarian, active follow-up of case progression, and, when appropriate, in-home care that can be provided by the client. In addition, there is a focus on prevention, and early diagnosis and intervention.” (Dr. Michael Blackwell) There is some overlap with this term and “spectrum of care” as we have defined it.

**Low-Cost Care** – Low-cost care is a type of veterinary care that seeks to minimize costs to clients through efficiencies in clinical practice: shorter appointments, fewer diagnostics, more empirical and staged treatment, more at home management, and more salvage surgeries (amputation, enucleation, ...), for example. Low-cost care may be offered by private for-profit veterinary clinics or non-profit organizations and shelters. Low-cost care would be one color in the spectrum of care. Low-cost here does not imply substandard care or care that diminishes animal welfare. The concept as used here is still within the spectrum of care options that maintain health and welfare and align with professionally accepted practices and client goals.

**Mobile Clinic**- A mobile clinic is a veterinary clinic that is run out of a vehicle. All supplies for clinical care must, therefore, be contained in a vehicle and transported from location to location. Patients may be brought into the vehicle for examination, diagnosis, and treatment or the veterinarian and/ or veterinary technician may take supplies from the vehicle into the animal's living space to examine, diagnose, and treat the animal *in situ*. There is some ambiguity between pop-up clinics and mobile clinics, but in our definition, mobile clinics do not require extensive set-up of materials and equipment at a site where clients travel with their pets for care. Mobile clinics go to the client and patient.

**Overhead Cost** – Overhead cost or overhead is the cost of a business for being in business. This includes maintenance and utilities for a building, telecommunications services, websites and software, office supplies, equipment maintenance and replacement, and accounting costs. In some contexts, labor costs are also included in this category because employees are paid a salary whether services are delivered or not. Overhead costs include both fixed and variable costs.

**Pet Insurance** – Pet insurance and care plans overlap to a certain extent in that they provide regular preventive care and screening with consistent monthly payments. However, pet insurance plans are not provided by veterinarians directly because the company providing them also takes on the risk of collecting money and paying out reimbursements for medical and surgical care that is not needed by all pets. Pet insurance has the benefit for clients in that it will pay (at least partially) for emergency services and management of chronic conditions that can be cost prohibitive for clients without savings. Because insurance plans pay for these non-standard services, their monthly fees are higher than for care plans.

**Pop-up Clinic** – Pop-up clinics have no regular business space but set up in a central location like a pet store, shelter, community center, or in a tent. The veterinarians and other staff holding a pop-up clinic bring materials and equipment to the pop-up site and set it up as if it were a clinic. Clients bring their pets to the pop-up clinic. This is as opposed to mobile clinics where the veterinarian travels to the clients and pets at their residence but do not set up a clinic.

**Preventive Care** – Veterinary preventive care is any care that is meant to prevent, as opposed to diagnose or treat, a disease. The most common preventive care in veterinary practice is vaccination. Additional services like discussion of diet and behavior with recommendations are also a key component of preventive care. Preventive care is part of *primary care*. Regular dental cleaning and regular dosing of parasiticides can also be considered preventive care, though these are not always offered as part of preventive veterinary care packages.

**Primary Care** – Primary care is veterinary care that serves to maintain health through preventive care as well as diagnosis and treatment of uncomplicated medical and surgical conditions.

**Satellite Clinic** – Satellite clinics are brick-and-mortar veterinary clinics that are affiliated with a larger veterinary clinic. Satellite clinics offer only offer a subset of services compared to the main clinic and may refer complex cases to the main clinic. Main and satellite clinics may share veterinary and technical staff or may only share administrative staff.

**Secondary Care** – Veterinary emergency and critical care is called secondary care. Secondary care includes medical and surgical diagnosis and treatment of acute and peracute conditions requiring immediate attention. This term is not commonly used as there is some level of ambiguity given that emergency and critical care can be practiced in clinics that focus on primary or tertiary care.

**Sick Care** – As opposed to preventive care, sick care is the process of diagnosing and treating diseases, conditions, and injuries in veterinary patients. This can include early (asymptomatic) diagnosis through screening tests as well as diagnosis in animals with emerging symptomatic disease. Sick care can be either acute or chronic. Sick care can be part of primary, secondary, or tertiary care.

**Spectrum of Care** – While there is no one definition of Spectrum of Care, the definition most-often cited is from the 2018 JAVMA Commentary by Stull et al. “Veterinarians have a wide spectrum of diagnostic and treatment options they can provide for their patients. These options range from technologically advanced and expensive interventions to less advanced and less costly options. The specific care provided along this spectrum for an individual patient will be influenced by many factors, including the knowledge and skills of the veterinarian; the current scientific evidence regarding the safety and efficacy of available treatments, recommendations, or best-practice guidelines; practice-specific goals, culture, and available resources; and the owner’s goals, values, and resources.” Some references (Fingland et al. 2021, for instance) emphasize the spectrum of costs to the client of different diagnostic and treatment choices. Other references (AVCC, 2018 – Page 87 by Forsgren) use the term more broadly in reference to the spectrum services provided by different types of practices: preventive care, primary care, secondary care, and tertiary care within the veterinary profession. In this report we use the definition from Stull et al. and enhance it with the idea that spectrum of care practice requires communication between the veterinarian and client to fully understand the spectrum of diagnostic and treatment options available, spectrum of costs of different choices, and spectrum of good outcomes of clinical care. In this definition, the availability of various “tiers” of specialty interventions (primary, secondary, tertiary hospitals) is assumed.

**Standard of Care** – Standard of care is a legal term for the practice of veterinary medicine as defined by individual state veterinary practice acts and interpreted by state veterinary medical boards. As such, the standard of care varies by state in the USA and the particular make up of their veterinary medical board. The American Association of Veterinary State Boards publishes a [practice act model](#) and other suggested regulatory language that provides a uniform set of standards for states to follow if they choose. The regulatory definition of standard of care is necessarily somewhat vague to encompass the breadth of veterinary practice, but generally considers that a veterinarian is practicing the standard of care if they can document that they honestly and competently cared for an animal in a way that their peers consider appropriate. Beyond the legal definition of standard of care, veterinary organizations (American Animal Hospital Association, AAHA, for example) produce guidelines that are beyond what is contained in state practice acts. While not formally part of the legal standard of care, many of these guidelines are recognized by enough veterinary professionals that they have become an informal part of the standard of care.

**State Board of Veterinary Medicine** – Going by different names in different states, the State Board of Veterinary Medicine is the group designated by the veterinary practice act to oversee the practice of veterinary medicine in that state. The group includes veterinarians but also non-veterinarians and is responsible for enforcement of the veterinary practice act including granting of licenses and disciplinary action against licenses for failure to meet minimum standards of care.

**Telehealth** - "Telehealth is the overarching term that encompasses all uses of technology geared to remotely deliver health information or education. Telehealth encompasses a broad variety of technologies and tactics to deliver virtual medical, health, and education services. Telehealth is not a specific service, but a collection of tools which allow Veterinarians to enhance care and education delivery. Telehealth encompasses both Telemedicine and General Advice." (AAVSB RECOMMENDED GUIDELINES FOR THE APPROPRIATE USE OF TELEHEALTH TECHNOLOGIES IN THE PRACTICE OF VETERINARY MEDICINE)

**Telemedicine** - "Telemedicine is the remote delivery of healthcare services, such as health assessments or consultations, over the telecommunications infrastructure. It allows Veterinarians to evaluate, diagnose and treat patients without the need for an in-person visit." (AAVSB RECOMMENDED GUIDELINES FOR THE APPROPRIATE USE OF TELEHEALTH TECHNOLOGIES IN THE PRACTICE OF VETERINARY MEDICINE). In general, telemedicine requires a valid veterinarian-client-patient relationship (VCPR) as defined by the state the animal is located in and must be done by a licensed veterinarian or under the supervision of a licensed veterinarian.

**Teletriage** - "Teletriage means emergency Animal care, including Animal poison control services, for immediate, potentially life-threatening Animal health situations (e.g., poison exposure mitigation, Animal CPR instructions, other critical lifesaving treatment or advice)." (AAVSB RECOMMENDED GUIDELINES FOR THE APPROPRIATE USE OF TELEHEALTH TECHNOLOGIES IN THE PRACTICE OF VETERINARY MEDICINE). Largely assists the client with determining if in-person veterinary care is necessary but may also include limited guidelines for patient monitoring or at-home care. In general, teletriage does not require a veterinary license or veterinarian-client-patient relationship (VCPR).

**Tertiary Care** – Also called specialty care or referral practice, tertiary care is diagnosis and treatment of complex medical and surgical conditions beyond what can be accomplished in primary care practice. Tertiary care may involve specialized knowledge or equipment and materials not broadly available in veterinary practice. Tertiary care facilities may include only one specialty or many different specialties and generally include board-certified veterinarians or veterinarians with other specialized credentials.

**Variable Costs** – Variable costs are overhead costs that increase if more service is offered or more clients and pets are served. Variable costs can be thought of as supplies such as gloves, syringes, medications, disinfectants, printer paper, laundry detergent, and treats for pets. In some cases, medical record systems, web services, and telecommunication services are priced based on usage so they may be included in this category.

**Veterinarian-Client-Patient Relationship (VCPR)** – “Veterinarian-Client-Patient Relationship (VCPR) exists when: 1) Both the Veterinarian and Client agree for the Veterinarian to assume responsibility for making medical judgments regarding the health of the Animal(s); and 2) The Veterinarian has sufficient knowledge of the Animal(s) to initiate at least a general or preliminary diagnosis of the medical condition of the Animal(s); and 3) The Veterinarian has provided the client with information for obtaining timely follow up care.” (AAVSB VETERINARY MEDICINE AND VETERINARY TECHNOLOGY PRACTICE ACT MODEL (PAM) WITH COMMENTARY, 2019)

**Veterinarian's Oath** – The veterinarian's oath is an ethical pledge taken by veterinarians upon graduation from veterinary school or entry into the profession. The US version is approved and updated by the American Veterinary Medical Association and the current text can be found [here](#). The first sentence “Being admitted to the profession of veterinary medicine, I solemnly swear to use my scientific knowledge and skills for the benefit of society through the protection of animal health and welfare, the prevention and relief of animal suffering, the conservation of animal resources, the promotion of public health, and the advancement of medical knowledge,” is directly applicable to the concept of access to veterinary care.

**Veterinary Practice Act** – A veterinary practice act, which goes by different names in different states, is the set of legal regulations that govern the practice of veterinary medicine in each state in the USA. The American Association of State Medical Boards produces a Model Practice Act that is a general template for veterinary practice acts, but each state has its own veterinary practice act that may or may not follow the current template. Individual state practice acts have been collected by Michigan State University [here](#).

**Veterinary Technician** – “Veterinary technicians are animal nurses (and much more). In addition to their nursing duties, they act as patient advocates, phlebotomists, radiology technicians, laboratory technicians, anesthesia technicians, and surgery technicians. Except tasks legally restricted to veterinarians, such as diagnosing disease conditions, performing surgery, prescribing medications, and prognosing medical outcomes, veterinary technicians are trained to do everything a veterinary hospital requires to run smoothly. Veterinary technicians must receive formal training in the knowledge and skills required to handle their many daily responsibilities by graduating from an American Veterinary Medical Association (AVMA)-accredited college with an associate's degree in veterinary technology.” ([AAHA](#))

**Wellness Plan** – (see care plan)



## VETERINARY PRACTICES MENTIONED

with Links to Public Websites

[AlignCare](#)

[Animal Fix Clinic](#)

[Back Roads Spay Neuter](#)

[Dumb Friends League](#)

[Emancipet](#)

[Frank Stanton Veterinary Spectrum of Care Clinic](#)

[Gateway Animal Clinic](#)

[Gigi's Shelter](#)

[Heal House Call Veterinarian](#)

[Lap of Love](#)

[Makefield Animal Hospital of Yardley, PA](#)

[Neighborhood Pets Resource Center](#)

[Open Door Veterinary Collective](#)

[Rural Area Veterinary Services](#)

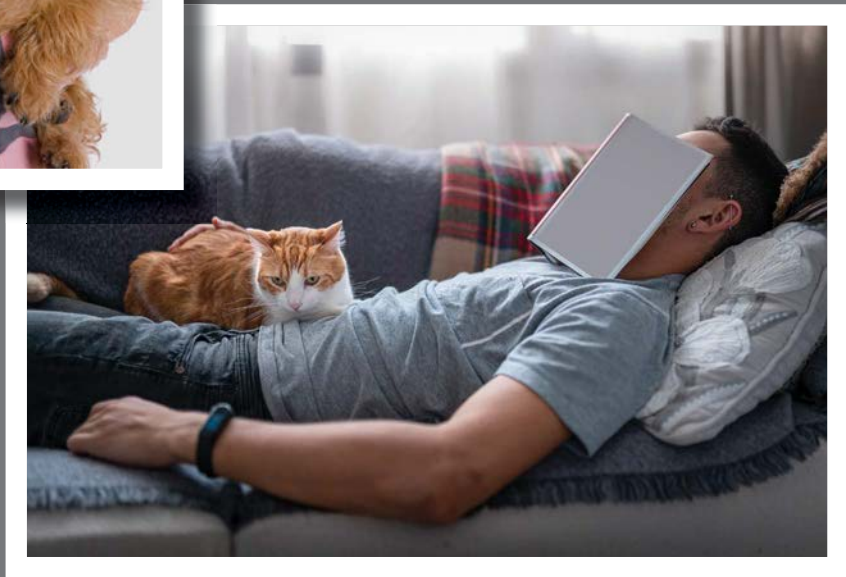
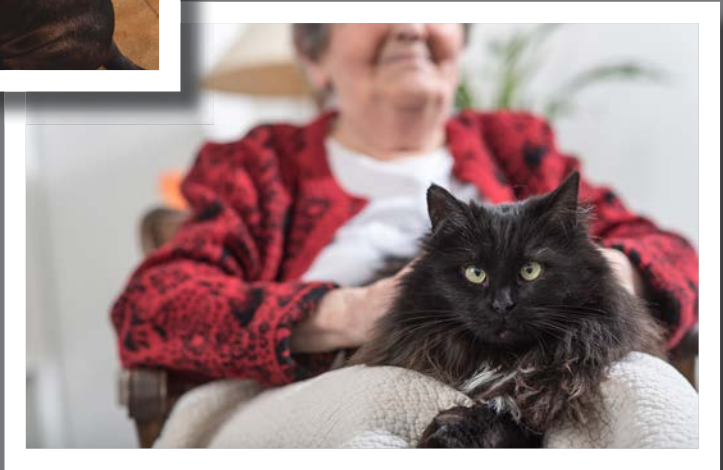
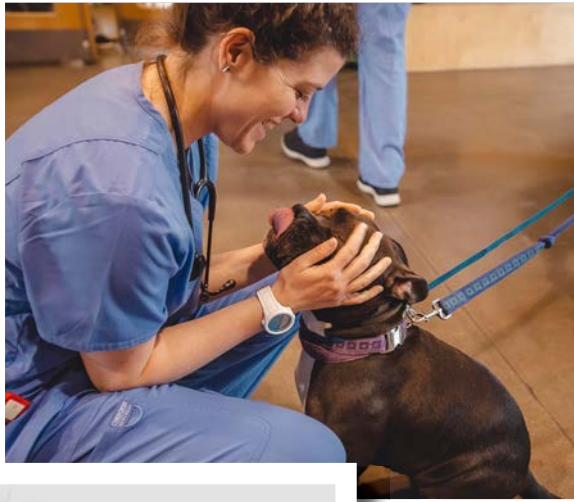
[Sovereign Nations Veterinary](#)

[Street Dog Coalition](#)

[Thrive Pet Healthcare](#)

[Veterinary Dentistry and Oral Surgery of Ohio](#)

[VetNow](#)



**THE OHIO STATE UNIVERSITY**  
COLLEGE OF VETERINARY MEDICINE