

## Colorado Veterinary Professional Survey: Summary of Results

Dr Rebecca Niemiec, Director, Animal-Human Policy Center Dr Veronica Champine, Research Scientist, Animal-Human Policy Center Colorado State University

### **Executive Summary:**

In July, 2023, the Colorado State University Animal-Human Policy Center convened a task force of stakeholders in Colorado to conduct a survey of veterinary professionals in the state. The survey effort was designed to understand veterinary workforce and access to veterinary care challenges and veterinary professionals' perspectives on potential policy solutions or programs to address these challenges in Colorado. A link to the online survey was sent via postcards to all 5,758 veterinary professionals on the Colorado Department of Regulatory Agencies (DORA) list of licensed veterinarians and veterinary technicians. The survey was also sent to veterinarians and veterinary technicians via the CACVT and CVMA online newsletters. A total of 736 veterinary professionals responded; of these, 446 respondents completed 100% of the survey and 521 completed at least 60% of the survey. 37% of the respondents reported that their current role was a veterinarian, 52% reported that their role was a registered/certified veterinary technician or non-credentialed veterinary technician, 17% reported being a practice owner/manager, and 4% reported "other." Below are some key findings from their survey responses:

#### Scope of Workforce and Access to Care Challenges

- When asked on average how often their clinic has had to divert clients because they
  can't fit them into their schedule or address their condition in a reasonable time frame,
  71% of practice managers/owners reported weekly or more often. When veterinary
  technicians and DVMs were asked the same question, 67% reported weekly or more
  often.
- On average, practice managers/owners reported that it takes 10.8 months to fill a veterinarian position. 42% of practice managers/owners reported that they are currently advertising or interviewing to hire additional veterinarians.
- 55% of DVMs/technicians reported that on average, they had to decline veterinary care for patients because the caretaker cannot afford to pay for treatment at least once a week
- 72% of DVMS and technicians reported that their veterinary team has had to euthanize an animal in the past year because the owner couldn't afford the treatment they



recommended and a different decision would have been made if the client had sufficient financial resources

- On average, practice managers/owners and DVMs reported having 1.8 RVT/CVTs per veterinarian in their clinic. These respondents also reported that 2.9 would be the ideal number of RVTs/CVTs per veterinarian in their clinic to maximize efficiency and number of patients treated.
- 57% of respondents believed that inadequate access to veterinary care is a moderate or significant problem in the area where they practice
- 78% of DVMs and practice managers/owners somewhat or strongly agreed with the statement that "RVTs/CVTs are difficult to find."
- 77% of DVMs reported that they sometimes or often perform duties that RVTs/CVTs could perform

#### **Support for Potential Policy Solutions**

- 50% of respondents reported that they would be "very" or "extremely" interested in participating in a grant program for private and non-profit clinics and community organizations focused on increasing veterinary service for underserved populations of animals and people.
- 53% of respondents said they would be willing to accept vouchers for income qualified pet owners to help relieve the cost of care to owners as part of payment for services;
   11% said no, and 35% were unsure.
- When asked if they would interested in participating in Aligncare by providing care for families in need in which the family pays a 20% copay when services are rendered, and AlignCare covers 60% or 80% of the costs (for profit vs non-profit, respectively), 27% of respondents said they would participate, 27% said they would not, and 46% were unsure. When asked to what extent do you believe this type of system would be helpful in providing veterinary service to underserved populations of people and animals in their community, 52 (10%) responded that it would be "not at all helpful," 168 (32%) responded that it would be "somewhat helpful," 146 (28%) responded that it would be "moderately helpful," and 154 (30%) responded that it would be "very helpful."
- 77.7% of DVMs and practice managers and owners and 95.7% of technicians reported that policy clarifying what tasks are appropriate for delegation under specific levels of supervision by veterinarians to CVTs/RVTs would be somewhat, moderately, or very helpful
- 13% of DVMs and practice managers/owners currently employ Veterinary Technician Specialists (VTSs). 44% of DVMs and practice managers/owners somewhat or strongly agreed with the statement that "I would hire a Veterinary Technician Specialist (VTS) over a technician without the specialist designation if more VTS's were available." 55% of veterinary technicians and 39% of DVMS/practice managers and owners responded that "yes," more CVTs obtaining a VTS designation would positively benefit their practice. 65% of veterinary technicians and 51% of DVMs/practice managers and owners



responded that "yes," more CVTs obtaining a VTS would positively benefit the profession. 31.2% of DVMs/practice managers and owners and 32% of veterinary technicians reported that they somewhat or strongly agreed that more CVTs obtaining a VTS designation would increase access to veterinary care for underserved populations.

- 60% of respondents somewhat or strongly agreed with this statement, "More widespread implementation of contextualized and incremental veterinary care in clinics would increase access to veterinary care for underserved populations." 63% of respondents somewhat or strongly agreed that they felt confident offering contextualized or incremental veterinary care for a given condition.
- A total of 46% of respondents reported that a veterinary professional associate (VPA) would positively benefit the profession. 16% of DVMs, 54% of veterinary technicians, and 29% of practice managers/owners reported that they believed a veterinary professional associate (VPA) would positively benefit their practice. 53% of respondents from corporately owned practices, 44% from non-profit practices, and 35% from privately owned practices reported that they thought a VPA would positively benefit their practice. 51% of all respondents, 64% of veterinary technicians, 39% of practice managers/owners, and 30% of DVMs somewhat or strongly agreed that the development of a "mid-level" veterinary professional associate (VPA) through a Masters of Veterinary Clinic Care (MSB-VCC) degree would increase access to veterinary care for underserved populations.
- A total of 52% of respondents somewhat or strongly agreed that the ability to establish a virtual veterinarian-client-patient relationship (VCPR) through telemedicine would increase the amount of care that veterinary professionals could provide to underserved populations. 43% of respondents reported that they believed a law in Colorado providing the ability to establish a virtual veterinarian-client-patient relationship (VCPR) through telemedicine would have a slight, moderate, or strong positive impact on the profession, while 158/404 (39%) reported that they believed it would have a slight, moderate, or strong negative impact on the profession.
- All respondents were asked whether they felt comfortable with RVTs/CVTs, VTS's, or VPAs performing a series of tasks under the supervision of a veterinarian, to inform conversations on whether they should become permissible under federal and state guidelines. Below are the numbers of respondents who selected that they felt comfortable having a VPA, RVT/CVT, and/or VTS only (not other RVTs) performing the task, and the percentage out of the total respondents that completed the question before (n = 425 for VPA and n = 441 for RVT/CVT and VTS) that selected that they felt comfortable having the professional complete the task.



	VPA	VTS only (not other RVTs)	RVT/CVT
Preventive medicine care (vaccines, parasite control)	334 (79%)	28 (6%)	389 (88%)
Establish a veterinary-client relationship	260 (61%)	55 (12%)	257 (58%)
Leadership development of veterinary teams	294 (69%)	57 (13%)	371 (84%)
Physical examinations, understanding when escalation to a DVM is needed	268 (63%)	95 (22%)	257 (58%)
Develop differential diagnoses and diagnostic plans, and understand when escalation to a DVM is needed	197 (46%)	175 (40%)	102 (23%)
Interpret laboratory and radiographic results, and understand when escalation to a DVM is needed	193 (45%)	158 (36%)	117 (27%)
Prescribe medication as allowed by Federal regulations, understanding when escalation to a DVM is needed	200 (47%)	140 (32%)	100 (23%)
End of life counseling and euthanasia	280 (66%)	71 (16%)	256 (58%)
Surgical procedures external to body cavity	185 (44%)	141 (32%)	112 (25%)
Spays for owned animals	72 (17%)	101 (23%)	25 (6%)
Spays for animals in shelter situations	139 (33%)	121 (27%)	59 (13%)
Develop protocols for biological risk management	247 (58%)	92 (21%)	250 (57%)
Provide tele-triage	313 (74%)	44 (10%)	364 (83%)
Provide telemedicine, understanding when escalation to a DVM is needed	255 (60%)	85 (19)	231 (52%)
Dental procedures including single root tooth extractions and suturing of gingiva	237 (56%)	112 (25%)	226 (51%)
Dental procedures including multiple root tooth extractions and suturing of gingiva	156 (37%)	179 (41%)	75 (17%)



Coordinate case management between primary and referral veterinarian	287 (68%)	56 (13%)	326 (74%)
Diagnose and treat infections of the ears, eyes and skin, knowing when to refer/escalate to a DVM	255 (60%)	103 (23%)	179 (41%)

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# **Survey Objectives and Methods:**

In July, 2023, the Colorado State University Animal-Human Policy Center convened a task force of key stakeholders in Colorado to collaboratively develop a survey of veterinary professionals in the state. The survey effort was designed to understand veterinary workforce and access to care challenges and veterinary professionals' perspectives on potential policy solutions or programs to address these challenges in Colorado. The survey and taskforce effort was requested by the Colorado Governor's Office in response to growing concerns expressed by stakeholders regarding these challenges. The purpose of this collaborative effort was to ensure diverse perspectives, including the perspectives of veterinary professionals in the state struggling with these challenges, were considered in the development of programs and policies moving forward.

The task force met several times in July and August 2023 to design the survey and included the following members:



- Dr Maggie Baldwin, Colorado State Veterinarian
- Dr Jodi Boyd, Surgical Skills Educator and Veterinarian, College of Veterinary Medicine
   & Biomedical Sciences, CSU
- Dr Catie Cramer, Assistant Professor, Department of Animal Sciences, CSU
- Dr Courtney Diehl, Bureau of Animal Protection Program Manager, Colorado Dept. of Agriculture.
- Nick Fisher, Program Manager, Pet Animal Care Facilities Act, Colorado Department of Agriculture
- Dr Danielle Frey, Director of Veterinary Student International and Outreach Experiences College of Veterinary Medicine and Biomedical Sciences, CSU
- Dr. Kalinda Gupta, CVMA legislative coalition
- Rachel Heatley, Director of Advocacy, Dumb Friends League
- Erin Henninger, BA, RVT, VTS (ECC), Executive Director at Colorado Association of Certified Veterinary Technicians
- Dr Chad Johannes, Associate Professor and Hospital Director, College of Veterinary Medicine & Biomedical Sciences, CSU
- Dr Geri Lake-Bakaar, COO & Veterinary Cardiologist, Evolution Veterinary Specialists
- Adrienne Marcus, DVM Student Services Manager, College of Veterinary Medicine & Biomedical Sciences, CSU
- Diane Matt, CAE, CEO, Colorado Veterinary Medical Association
- Dr. Nicole Rosmarino, Policy Advisor to the Governor for Wildlife, Agriculture, and Rural Economic Development
- Dr Apryl Steele, President and CEO, Dumb Friends League
- Dr Claire Vaiden, Bureau of Animal Protection Veterinarian, Colorado Department of Agriculture
- Dr. Sue Vandewoude, Dean, College of Veterinary Medicine & Biomedical Sciences, CSU
- Karen Phelan, Program Director, State Board of Veterinary Medicine

The task force first conducted a collaborative literature review of existing studies on veterinary workforce and access to care challenges and potential policy solutions. Based on the collaborative literature review, the task force identified 8 different topics and associated research questions to focus on in the Colorado veterinary workforce survey:

1. Patient Load, Workforce Challenges, Economic Barriers to Care, and Impacts to Veterinary Professionals: This first section of the survey was designed to obtain a better understanding of veterinary professionals' perceptions of access to care and workforce challenges in Colorado. Specifically, this section asks about clinic staff and capacity, hiring efforts and challenges, patient load, workload, and perceptions of whether members of the public are getting adequate access to veterinary care. This section also asks about whether workforce and access to care challenges are impacting veterinary



professionals' mental health and motivation and the frequency by which euthanasia or turning away care for patients occurs as a result of clients' financial barriers.

- 2. Workforce Challenges Within Shelters: This section of the survey focuses on understanding any additional workforce and access to care challenges specific to the shelter setting. For example, this section asks about the type of veterinary care that shelters provide or seek for shelter owned animals as well as community owned animals, any barriers to obtaining or providing this care, and the impacts of these barriers to the shelter.
- 3. Potential Programs and Policies to Improve Veterinary Service Provision for Underserved Populations: The third section of the survey focused on understanding veterinary professionals' ideas and perspectives on improving veterinary care delivery systems to address barriers to accessible care and serve all socioeconomic groups. Specifically, the questions in the section were designed to answer: What resources do veterinarians in Colorado believe would help them improve veterinary care delivery systems to serve all socioeconomic groups in their community? To what extent and how would veterinarians participate in programs to improve veterinary care delivery systems to serve all socioeconomic groups? The questions drew from programs in other states to increase access to care as well as proposed programs outlined in the Access to Veterinary Care Coalition 2018 report.
- 4. <u>Volunteering for Underserved Population:</u> This section sought to understand veterinary professionals' efforts to volunteer to provide services for underserved communities, barriers to volunteering, and programs and resources that might facilitate volunteering.
- 5. Perception on the Role of and Opportunities for Veterinary Technicians: This section focused on the current roles of veterinary technicians and perceptions of potential opportunities to provide education, resources, and other support for veterinary technicians. Specifically, questions in this section sought to answer: What is the current and ideal number of veterinary technicians in the clinic? What opportunities and barriers exist to effective utilization of veterinary technicians? What is current knowledge of and perceived benefits and drawbacks of the Veterinary Technical Specialist (VTS) designation for technicians? Beyond what is currently allowed in statute, are there specific contexts or types of procedures that a Registered Veterinary Technician or VTS should be allowed to perform? What policies or educational opportunities would veterinary technicians support when thinking about potentially expanding the role of or opportunities for veterinary technicians?
- 6. Perceptions of and Experience with Contextualized/Incremental Care: This section sought to understand veterinary professionals experience with, knowledge of, comfort with, and barriers to providing contextualized/incremental care to clients. This section also sought to understand resources that veterinary professionals think would help them provide contextualized/incremental care to their clients.
- 7. <u>Perceptions of the Mid-Level Practitioner/Veterinary Professional Associate:</u> This section sought to understand the diversity of benefits and drawbacks that veterinarians perceive



with regard to a Veterinary Professional Associate (VPA) and whether they believe a VPA would benefit the profession and their practice. This section also sought to understand whether there are specific contexts or types of procedures that veterinary professionals would support or oppose a VPA getting involved with.

8. Experience with and Perceptions of Telemedicine/Telehealth: This final section sought to understand veterinary professionals' experience with telemedicine/telehealth. Specifically, this section sought to understand what veterinary professionals use telehealth for, barriers to using telehealth, support for a virtual Veterinary-Client Patient Relationships (VCPR), and resources that veterinary professionals think would help them implement telehealth in their clinic.

Animal-Human Policy Center staff developed survey questions to address the 8 topic areas based on existing literature, including the following sources:

- Access to Veterinary Care Coalition. 2018. Access to Veterinary Care: Barriers, Current Practices, and Public Policy. <a href="https://trace.tennessee.edu/utk-smalpubs/17/">https://trace.tennessee.edu/utk-smalpubs/17/</a>
- CVMA. 2023. A mid-level veterinary practitioner in Colorado? An introduction. <a href="https://www.colovma.org/advocacy-news/a-mid-level-veterinary-practitioner-in-colorado-part-i/">https://www.colovma.org/advocacy-news/a-mid-level-veterinary-practitioner-in-colorado-part-i/</a>
- Park, R.M.; Gruen, M.E. Royal, K. 2021. Association between Dog Owner Demographics and Decision to Seek Veterinary Care. Vet. Sci. 8, 7. https://doi.org/10.3390/vetsci8010007
- Scarlett, J. 2023. California sounds the alarm on a veterinary shortage impacting shelters across the country. New study shows suffering, euthanasia in shelters will rise without immediate action. UF Shelter Medicine Program
- Shock, D. A., Roche, S. M., Genore, R., & Renaud, D. L. (2020). The economic impact that registered veterinary technicians have on Ontario veterinary practices. The Canadian Veterinary Journal, 61(5), 505.
- Stull et al. 2018. Barriers and next steps to providing a spectrum of effective health care to companion animals. Journal of the American Veterinary Medical Association.
- Skipper, A., Gray, C., Serlin, R., O'Neill, D., Elwood, C., & Davidson, J. (2021). 'Gold standard care' is an unhelpful term. Veterinary Record, 189(8), 331-331.

  Tell us what you think!

Members of the task force then reviewed multiple versions of the survey and provided feedback. The survey was edited in multiple iterations based on task force members, and the deadline for feedback was August 11th, 2023. A link to the online survey was then sent out



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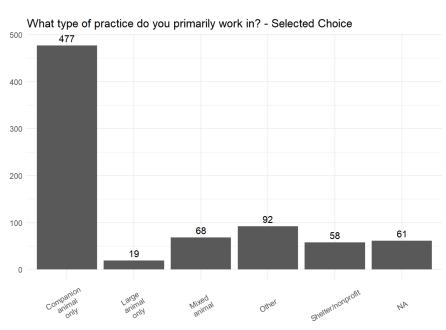


Monday August 14th to veterinary technicians via the CACVT newsletter and sent out via email to networks of Colorado veterinary professionals via task force members. In all communications, it was stated to not post the survey on social media.

On Wednesday, August 16th, the research team sent postcards to all 5,758 veterinary professionals on the Colorado Department of Regulatory Agencies (DORA) list of licensed veterinarians and veterinary technicians. The postcard included a QR code and link to the online survey. The survey was also sent out by the Colorado Veterinary Medical Association (CVMA) in their newsletter on Friday August 18th, and a follow up postcard was sent out August 24th to all addresses on the DORA listserv. Respondents were informed that they had until September 1st, 2023, to complete the survey; the survey was closed on this date.

### **Description of the Sample:**

- We received a total of 775 responses; of these, 736 responded that they agree to terms of the survey and that they are veterinarian, veterinary technician, or practice/owner manager in Colorado. We sent a total of 5,758 postcards in the mail to veterinary professionals in the state, so our response rate was 12.7% (excluding any additional individuals who were sent the survey via email/listservs/etc who did not receive a postcard). Percentages reported in this section of the sample are out of the 736 total responses (if percentages don't add up to 100%, it is because respondents could select multiple answers per question or because not all respondents answered each question). After this introductory section, percentages reported are out of the total number of responses for each question.
- 418 respondents
   completed 100% of the
   survey, 493 completed at
   least 60% of the survey,
   64 completed less than
   10% of the survey, and
   243 completed less than
   50% of the survey
- The majority (57%) of respondents received the survey via postcard mailing. Specifically, 415 of these respondents received the survey via the postcard mailing; 114





(15%) were forwarded the survey from a friend or colleague; 151 (20.5%) received it from an email listsery; 27 (3.6%) received it via social media; and 52 (7.1%) received it via "other" source. Most respondents who checked "other" wrote that they received it via the CACVT newsletter, CVMA evoice, or via email.

- 269 (37%) of the respondents reported that their current role was a veterinarian, 384 (52%) reported that role was a registered/certified veterinary technician or non-credentialed veterinary technician, 126 reported practice owner/manager (17%), and 30 reported "other" (4%). The "other" responses included retired, consulting, relief, animal control officer, industry, and professor.
- The majority of respondents (477 or 65%) worked in companion animal only practices; only 19 worked in a large animal only practice, 68 worked in a mixed animal practice, and 58 worked in a shelter/non-profit.
- 284 (39%) reported that they worked for a privately owned practice, 255 (35%) reported that they worked for a corporately owned practice, and 18 reported that they worked for a non-profit (2.4%)
- 362 respondents reported that their practice provides emergency services (49%), while 346 reported that their practice does not (47%)
- Of the respondents working in shelters, 52 (90%) reported that their shelter provides services for owned pets in their community while 4 reported that their shelter does not

# Patient Load, Workforce Challenges, Economic Barriers to Care, and Impacts to Veterinary Professionals:

Responses from DVMs and practice managers/owners only on patient load:

Average lead times for seeing a current client for preventative care varied, while the
majority of respondents reported they could see a new client within 2 days for sick care

Average lead time	Preventative Care (# of respondents)	Sick care (# of respondents)
Within 1 day	41	119
Within 2 days	30	66
Within 3 days	30	30
Within a week	65	24
Within 2 weeks	48	9
Within 4 weeks	31	1



More than a month 8	More than a month	8	2
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Average lead times for seeing a new client for preventative care varied, while the
majority of respondents reported they could see a new client within 2 days for sick care

Average lead time	Preventative Care (# of respondents)	Sick care (# of respondents)
Within 1 day	29	80
Within 2 days	25	73
Within 3 days	25	26
Within a week	70	38
Within 2 weeks	46	17
Within 4 weeks	31	6
More than a month	31	14

- 183 (61%) respondents reported that yes, they would be able to take on additional patients while being able to maintain a sustainable workload for them and their team; 86 (29%) respondent that no, they would not, and 31 responded that they were not sure
- Of those who could take on clients, 62 (34%) reported that they could take in 1-5 new clients weekly over the next several months, 60 (33%) reported 5-10, 33 (18%) reported 10-20 clients, and 26 (14%) responded more than that/no limit

#### Responses from practice managers/owners on patient load and hiring:

- 23 (21%) practice managers/owners reported that they currently employ 1 FTE veterinarian, 14 (13%) reported that they currently employ 2 FTE veterinarians, 16 (15%) reported that they currently employ 3 FTE veterinarians, and 40 (37%) reported more than 3.
- 45 (42%) practice managers/owners reported that they are currently advertising or interviewing to hire additional veterinarians while 63 reported that they were not (58%)
- On average, practice managers/owners reported that it takes 10.8 months to fill a veterinarian position
- On average, practice managers/owners reported that they schedule 13.9 clients per veterinarian on an average day



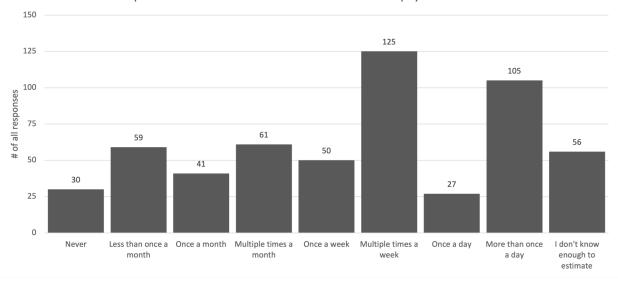
- When asked on average how often the clinic has had to divert clients because they can't fit them into their schedule or address their condition in a reasonable time frame, of the practice managers/owners, 45 (42%) of respondents reported daily, 32 (30%) reported weekly, 10 (9%) reported monthly, 3 (3%) reported annually, 15 (14%) reported never, and 3 (3%) reported don't know enough to estimate
- When asked if the current patient load is too high, too low or just right for maintaining financial success, of the practice managers/owners, 41 (38%) reported slightly, moderately, or extremely low; 29 (27%) reported just right, and 38 (35%) reported slightly, moderately, or extremely high

# Responses from DVMs and veterinary technicians on patient care and impacts to professionals:

- When asked on average, how often the clinic has had to divert clients because they can't fit them into their schedule or address their condition in a reasonable time frame, of the veterinarians/veterinary technicians, 180 respondents reported daily (32%), 199 (35%) reported weekly, 58 reported monthly (10.3%), 16 reported annually (2.8%), 57 (10%) reported never, and 53 (9%) reported don't know enough to estimate
- When asked if the current patient load is too high, too low, or just right for maintaining a sustainable work-life balance, of the veterinarians/veterinary technicians, 78 (13.9%) reported slightly, moderately, or extremely low; 129 (23%) reported just right, and 354 (63%) reported slightly, moderately, or extremely high.
- Of those who reported that patient load was slightly, moderately, or extremely too high for maintaining work-life balance (n=354), 22 (6%) reported that this does not negatively influence their mental health; 95 (27%) reported that it somewhat negatively influences their mental health, 89 (25.6%) reported that it moderately negatively influences their mental health, and 141 (40.6%) reported that it negatively influences their mental health "a lot" or "a great deal."
- Of those who reported that patient load was slightly, moderately, or extremely too high for maintaining work-life balance (n=347), 58 (17%) reported that this does not negatively influence their daily motivation to do their work; 112 (32%) reported that it somewhat negatively influences their daily motivation to do their work, 76 (22%) reported that it moderately negatively influences their daily motivation to do their work, and 101 (29%) reported that it negatively influences their daily motivation to do their work "a lot" or "a great deal."
- When asked on average how often their practice has to decline veterinary care for
  patients because the caretaker cannot afford to pay for treatment, the most common
  responses were "multiple times a week" and "more than once a day." 55% of
  respondents (307/554) reported that on average they had to decline veterinary care for
  patients because the caretaker cannot afford to pay for treatment at least once a week.



In the past year, on average, how often does your practice have to decline veterinary care for patients because the caretaker cannot afford to pay for the treatment?



- When asked to what extent not being able to provide treatment for sick patients for economic reasons impacts their mental health, 35 (7%) respondents reported "not at all," 157 (30%) reported "somewhat influences," 134 (26%) reported "moderately influences," 191 (37%) reported "influences a lot" or "influences a great deal."
- When asked to what extent not being able to provide treatment for sick patients for economic reasons impacts their daily motivation to do their work, 140 (27%) respondents reported "not at all," 164 (32%) reported "somewhat influences," 110 (21%) reported "moderately influences," 104 (20%) reported "influences a lot" or "influences a great deal."
- When asked if in the past year, your veterinary team has had to euthanize an animal because the owner couldn't afford the treatment you recommended and a different decision would have been made if the client had sufficient financial resources, 392 (72%) respondents reported "yes," while 150 (28%) reported "no."
- When those (n=388) who had to euthanize an animal because the owner couldn't afford
  the treatment they recommended were asked to what performing euthanasia in this
  circumstance impacts their mental health, 18 (5%) respondents reported "not at all," 113
  (29%) reported "somewhat influences," 74 (19%) reported "moderately influences," and
  183 (47%) reported "influences a lot" or "influences a great deal."
- When those (n=388) who had to euthanize an animal because the owner couldn't afford the treatment they recommended were asked to what performing euthanasia in this circumstance impacts their daily motivation to do their work, 83 (21%) respondents reported "not at all," 117 (30%) reported "somewhat influences," 79 (20%) reported "moderately influences," and 109 (28%) reported "influences a lot" or "influences a great deal."



• 50 (9%) respondents believed that overall, inadequate access to veterinary care is not a problem in their area, 183 (33%) believed that it is a minor problem, 176 (32%) believed that it is a moderate problem, and 138 (25%) believed that it is a significant problem in their area.

### **Workforce Challenges Within Shelters**

Responses from all DVMs, veterinary technicians, veterinary practice owners/managers, and practice owners who work in shelters (n=58)

- On average respondents said that their shelter employed 5.6 FTE veterinarians; 38% of respondents said their shelter employed less than 3 FTE veterinarians.
- On average respondents said that their shelter employed 10.9 FTE veterinary technicians; 36% of respondents said their shelter employed less than 5 FTE veterinary technicians.
- When asked if the number of FTE veterinary staff at your shelter has increased, decreased, or stayed the same over the past 3 years, 17 reported decreased, 14 reported increased, 9 reported stayed the same, and 2 reported they don't know.
- When asked what services shelter-employed veterinarians provide shelter owned animals and owned pets in the community, the following responses were provided:
  - Services that Shelter- Employed Veterinarians Provide Service to Shelter Owned Animals

■ Vaccines and parasite control: 38

■ Spay/neuter: 39

■ Infectious Disease Management: 35

■ Dental procedures: 34

Soft tissue surgery other than spay or neuter: 33

Orthopedic procedures: 23

 Services that Shelter- Employed Veterinarians Provide Service to Owned Pets in the Community

Vaccinations: 32Parasite control: 25Spay/neuter: 33

Acute care for sick and injured animals: 29

Other: 9

- When asked how long animals at the shelter typically wait on a surgery list for spay/neuter surgeries, 6 (19%) reported one day, 18 (56%) reported 2-5 days, 8 (25%) reported 1-3 weeks, 0 reported more than a month, and 0 reported don't know
- When asked whether they believe their veterinary team at their shelter is understaffed 29 (74%) reported yes and 10 (26%) reported no
- For those who reported that their veterinary team was understaffed, 1 (3%) responded that the ideal number of veterinarians to serve the needs of the animals at their shelter



would be 1, 7 (24%) responded 2, 4 (14%) responded 3, 4 (14%) responded 4, and 12 (41%) responded 5+

- For those who reported that their veterinary team was understaffed, 1 (3%) responded that the ideal number of veterinary technicians to serve the needs of the animals at their shelter would be 1, 0 responded 2, 2 (7%) responded 3, 4 (14%) responded 4, and 21 (72%) responded 5+
- When asked how understaffing impacts the services the shelter can provide to shelter animals, the following responses were provided:
  - Increased wait time for care (e.g., animals needing spay/neuter services, sick animals needing to be seen by a veterinarian, vaccinating/boostering animals, surgeries)
  - Decreased adoption rate
  - Decreased shelter capacity
  - Increased exposure to disease for animals
  - Increased length of stay for animals
  - Decreased capacity for dental or special surgery
  - o Increased rate of euthanasia
  - Increased transfers to other organizations
  - Increased staff burnout (e.g., emotional fatigue, increased risk of sickness, exhaustion, stressful work environment)
- When asked how understaffing impacts the services the shelter can provide to owned pets in the community, the following responses were provided:
  - Decreased services to owned pets due to capacity (e.g., routine wellness appointments, vaccines, spay/neuter, sick animals)
  - Increased length of waiting list for spay-neuter surgeries
  - Increased appointment cancellation rate
  - Increased relinquishment rate
  - Increased wait times for relinquishments
  - Increased referrals to facilities that are further away
  - Increased staff burnout (e.g., emotional fatigue, increased risk of sickness, exhaustion, stressful work environment)
- When asked whether your shelter uses community veterinarians to perform procedures
  for shelter animals, 19 reported yes and 23 reported no. Of those who reported yes, 5%
  reported that the availability of community veterinarians for shelter animals has
  increased, 37% reported that availability has decreased, and 32% reported that
  availability has stayed the same.



# Potential Programs and Policies to Improve Veterinary Service Provision for Underserved Populations

Responses from all DVMs, veterinary practice owners/managers, and veterinary technicians:

- When asked what strategies respondents or their organizations used in the past year to address the needs of underserved populations of animals and people, the following responses were provided:
  - o Providing services for free or at reduced cost
  - Angel funds/doctor discretion fund to help cover costs
  - o Care credit, Klarna, Scratch pay, snap pay
  - Funding set aside to offset costs if people are denied or have maxed out Care Credit
  - Donation fund, especially for emergency funds, often to be used if owner cannot afford care and pet has a good chance of survival with treatment
  - Connect 4 Care
  - Offering in-house payment plans
  - Referrals to low-cost clinics
  - Funds available for service dogs
  - Coordinating with rescues to provide care
  - o Funds for long term clients or rescues
  - Grant funding for issues like overpopulation
  - Recommending pet insurance
  - Low cost spay and neuter clinics
  - o Provide a list of organizations & funds that might help cover costs
  - Provide a list of low-cost practices / humane society / etc. that could possibly help
  - Having ER hours late at night and weekends
  - o Relief work
  - Adjust care options/care provided based on clients financial needs
  - Financial support by corporation funds
  - Supportive outpatient care
  - Reduced rates for care performed by students under supervision by DVM
  - Exam discounts
  - Reduce prices for clinical trials/research
  - Options for relinquishment
  - Friends/family discount
  - Discounts for military/first responders
  - Honoring humane society spay/neuter/vaccine certificates & AKC and humane society vouchers for exams
  - Wellness plans



- Emergency fund
- Offering free/discounted vaccines (e.g., free canine and feline distemper vaccines donated by PetcoLove foundation)
- Volunteer work at local spay/neuter facility or low cost/free clinics
- Charitable care funds through AVMA
- Donated medications
- Self-financed payment plans
- Waiving office fees
- Corporate practice has a fund that clients can apply for
- Offer free and reduced fee services for rescues
- Work with rescues to help rehome difficult cases
- Option to donate instead of get a refund for services for pets who pass away
- Participate in local grant that provides free spay and neuter for area
- Respondents were asked to "Consider a hypothetical grant program for clinics. The program could provide funds to private and non-profit clinics and organizations in your community to increase veterinary service for underserved populations of animals and people. The funds could be used in a variety of ways (e.g., angel funds, vouchers for owners to receive veterinary care, funding for mobile or low cost clinics or bringing veterinary services to the community, investing in telehealth, etc)." When asked to what extent they would be interested in their practice or organization participating in such a grant program, 43 (8%) responded "not at all interested," 124 (23%) responded "somewhat interested," 102 (19%) responded "moderately interested," and 272 (50%) responded "very" or "extremely interested."
- When asked to what extent they would be interested in their practice or organization working with other private and non-profit clinics and organizations in your community to apply to such a grant program, 54 (10%) responded "not at all interested," 142 (26%) responded "somewhat interested," 103 (19%) responded "moderately interested," and 242 (45%) responded "very" or "extremely interested."
- When asked how they would apply these grant funds to address the unique barriers to access to care in their community, the following responses were provided:
  - Funds for emergency situations; rapid approval of funds
  - Low cost clinics that utilize vet students/ tech students and volunteers
  - Income based support for owners/for owners with demonstrated financial need and patients with potential for good prognosis
  - More permanent low cost clinic and funds for temporary low cost clinic events
  - Free/low cost spay and neuter clinic
  - Discretionary funds for DVMs to use on various cases
  - Use funds to avoid "economic euthanasia"
  - Supplemental angel fund
  - Service days where services are significantly discounted
  - Mobile clinics



- Assisting people on fixed incomes and elderly and disabled
- In ER, providing immediate life saving care/stabilization and pain control to those who need it most.
- Build a 24 hour emergency hospital in Pueblo, CO so that clients aren't having to drive an hour to the nearest ER when time is of the essence for critical patients.
- Provide vouchers or incentives for preventive care such as vaccinations, HWT, heartworm prevention, screening bloodwork
- Vouchers for care more broadly
- Creating community options for transportation of pets to hospital
- Provide dental care/low cost dental clinic
- Work with social service agencies to coordinate care
- Funds for people experiencing homelessness
- Cover hospitalization
- Routine lab screening for senior pets
- o Invest more in telemedicine
- Funds for diagnostic condition
- Free spay/neuter day at every clinic
- Have staff/board determine how funds are applied on case by case basis
- Cover costs on sliding scale based on income
- Hiring additional technician staff to take care of additional patients, while attempting to keep those costs low
- Provide people annual wellness exams & basic vaccines would help catch things before they become expensive problems
- Cat rescue
- o Increase funds to existing low cost clinics so more clients can be sent there
- More low cost vaccination clinics, better benefits for shelter staff
- Increasing pay for veterinary technicians
- o Incentives for veterinary professionals volunteering for communities in need
- Hiring more staff to adequately staff our community wellness program and reduced cost spay-neuter program while also providing care for the animals in the shelter would be ideal.
- Grants towards staffing or towards helping small, privately owned practices with ownership and management "bootcamps" in their clinics may help reduce the amount of clinics closing and unable to keep any staff.
- Relief fund for clients with pets with chronic conditions
- o Owner education, especially on spay/neuter and abandonment prevention
- Cover the cost of prescription medications for ill pets
- Open a clinic where emergency surgical procedures and overnight hospitalizations can be done at a discounted cost for qualifying families and pets.
- RVT run low cost vaccination clinic
- Education to veterinarians on improving care, utilizing RVTs



Phone consults with current client seniors offering home visits and reduced cost.

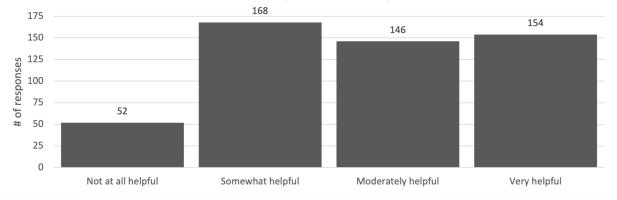
#### Responses from DVMs and veterinary practice owners/managers only:

- Respondents were told, "In Rhode Island, a program was founded in 2013 that provides the economic incentive of \$125 vouchers to income-qualified pet owners. Income qualified pet owners would be approved through the program, rather than through veterinary clinics. The vouchers can be used by pet owners to reduce the costs of receiving veterinary services." When asked if a similar program were implemented in your community for animal owners, do you think you or your practice would be willing to accept the vouchers as part of payment for services, 130 (53%) responded "yes", 27 (11%) responded "no", and 86 (35%) responded "maybe."
- Those that responded "maybe" gave the following reasons why they were unsure:
  - Not sure how corporate or boss would react
  - Not enough; would only cover exam fee and nothing else in ER or specialty medicine or diagnostics/treatments
  - Only if there was proven financial need among owner
  - Depends on whether payment back to practice came in an easy and timely manner
  - Depends on whether practice would be compensated for vouchers or whether would be paid back
  - Programs rarely last long term, clients cant continue providing care or expect more free care
  - Not sure can fit more voucher clients into schedule
  - How much employee time does clinic need to process vouchers
  - Clients get mad when they cannot afford continued care after vouchers
- For those that said they would participate in a voucher program, approximately half (n=66) reported that their practice would be able to subsidize a portion of the additional costs of care for voucher holders (e.g., waiving an exam fee), while 63 reported that they would not.
- Of those (n=66) that would subsidize a portion of the additional costs of care for voucher holders, 18 reported that they could subsidize 10% of the total cost, 28 reported that they could subsize 20% of the total cost, 5 reported they could subsidize 50% of the total cost, and 12 reported that they could subsidize another amount. Other amounts included 5%, between 10-20%, 35%, and between 20-50%. 13 respondents reported that they could provide subsidized services to 1-5 patients per month, 27 reported that they could for 5-10 patients per month, and 22 reported that they could provide subsidized services for more patients per month.
- Respondents were told, "There has been discussion about the potential for implementing systems in communities to increase access to veterinary care for underserved populations of people and pets. This type of system recognizes that people's animals are



important, and when animals cannot get the care they need, they can suffer from illness or the risk of being surrendered to a shelter, which results in distress for the entire family. These systems seek to remove these family stressors by providing support to families and veterinary care for their animals. An example of such a is AlignCare [https://www.aligncarehealth.org/about], which connects pet families in need with veterinary service providers, community groups, and social service agencies. In AlignCare communities, veterinarians can sign up to be an AlignCare Veterinary Service Provider (VSP), so AlignCare families can choose a clinic to provide their pet with the services they need. For profit VSPs are asked to discount services by 20% for Aligncare families. Aligncare then covers 60% of the costs and the family provides 20% co-pay at the time services are rendered. Some services are never discounted, e.g., prescription foods, at the discretion of the VSP. Nonprofit VSPs are not asked to discount services, so in those instances, the family provides a 20% co-payment and AlignCare covers 80% of the costs. Veterinary Social Workers provide pet families with emotional support and coaching to help manage non-medical, pet-related issues." When asked to what extent do you believe this type of system would be helpful in providing veterinary service to underserved populations of people and animals in your community 52 (10%) responded that it would be "not at all helpful," 168 (32%) responded that it would be "somewhat helpful," 146 (28%) responded that it would be "moderately helpful," and 154 (30%) responded that it would be "very helpful."

To what extent do you believe this type of system would be helpful in providing veterinary service to underserved populations of people and animals in your community?



- When asked if such a program existed in your community, would you be interested in participating by providing care for families in need in which the family pays a 20% copay when services are rendered, and AlignCare covers 60% or 80% of the costs (for profit vs non-profit, respectively), 64 (27%) responded yes, 63 (27%) responded no, and 108 (46%) responded maybe.
- Reasons reported for wanting to participate in AlignCare included the following:
  - Maintain pet/human bond; keep pets with their families for mental health benefits



- Give better care for pets
- o Industry can do a better job at helping those who are in need
- Being able to help people who have been prescreened to be truly in need allows the staff to feel good about the help they are providing
- Have seen families and pets suffer because they could not afford the veterinary care their pets required
- Allows clinics to see more clients and patients in need without losing a lot of revenue. This may encourage clients to stay with clinic long term.
- Having a framework and consistent policy could reduce stress and maximize care.
- The emotional benefits to veterinary professionals of being able to provide discounted care would be awesome.
- Takes pressure off of clinics to extend credit (a frequent "solution"), still requires client to pay something up front.
- Another group that is supporting the overall costs for owners in a sustainable model over time
- Another option for clients for whom the current discount is not enough
- Family has to be invested in the pet enough to pay something
- o The inclusion of veterinary social workers, counseling for families
- It would get more clients in the door and give a chance to increase the trust between vets and the community
- o Low cost clinics in the area are overwhelmed, not a lot of options currently
- Already subsidizing care but financially difficult; a system like AlignCare could enable a more sustainable way to serve more pets and families.
- Help decrease the suffering of animals and decrease the euthanasias and relinquishments that are happening secondary to the cost of veterinary care.
- Reasons reported for not wanting to participate or being unsure about participating included the following:
  - Closed practice/not accepting new clients
  - Don't think corporate would approve
  - Don't believe its their responsibility to subsidize pet care for owners who cant afford it
  - Not decision-maker in practice
  - Worried about profitability
  - Could become problematic for more involved ER cases where exact cost of care is not known up front
  - Don't often have cost concerns
  - What happens for complications or follow up care if they cant afford it
  - Unsure how corporate practice would deal with these situations
  - Concern about being told how to charge/what can do and decline in quality of care



- Depends on how smoothly it works and how guickly funds are transferred
- Concerned about 20% hit to practice affecting profitability; financial margin couldn't support 20% reduction in price
- Already low cost options in area
- Offering discounted services does not support sustainable practice and will not help decrease the shortage of veterinarians
- Not sure nonprofits should receive more subsidization
- Concern about flat rate discount not appropriately accounting for the nuances of the industry
- Concern about discounting services is a form of undervaluing veterinarians,
   which adds to burnout and other mental health challenges
- Should just be focused on routine/ER care not speciality
- Would rather personally determine who needs services
- If the client doesn't pay their 20%, then that means 40% of the bill is paid for by the clinic which is unsustainable.
- No room to offer even more of a discount; already barely able to pay technicians a living wage
- More efficient to directly fund low cost clinics and funnel clients there
- Extra paperwork and time
- Immediate community doesn't have significant need
- Not sure this would ensure clients would pay their payment plans
- Not sure program is encompassing enough to help a family who is going to spend a lot on chronic care
- Does not address the problem of lack of veterinary professional retention; asking veterinarians that are already overworked to forfeit pay
- Not fair to people who don't qualify but still need help

#### Responses from practice owners/managers only:

- Practice owners/managers were asked: "some clinics in Colorado accept third party credit providers (e.g., Care Credit) that provide payment plans to clients with financial needs. But for some of these creditors, if the client doesn't pay back their credit loans, the costs fall to the clinic. To what extent would a grant program backing these credit loans (i.e., to help cover the cost to clinics from defaulted loans) be useful in helping you and your clinic provide care to underserved pet populations?" In response, 13 reported "not at all useful," 32 reported "somewhat useful," 19 reported "moderately useful," and 22 reported "very useful."
- When asked to what extent would you be willing to provide interest free payment plans if they were backed by such a system, 16 reported "not at all willing," 29 reported "somewhat willing," 17 reported "moderately willing," and 22 reported "very willing."



#### Responses from DVMs, veterinary technicians and practice owners/managers:

- All respondents were asked if they agreed or disagreed with the statement, "the
  development of state-wide student loan repayment assistance programs for
  registered/certified veterinary technicians would increase access to veterinary care
  for underserved populations." In response, 148 (29%) strongly agreed, 166 (33%)
  somewhat agreed, 87 (17%) neither agreed nor disagreed, 59 (12%) somewhat
  disagreed, and 42 (8%) strongly disagreed. Overall, 62.5% of respondents agreed with
  this statement.
- All respondents were asked if they agreed or disagreed with the statement, "The
  development of state-wide student loan repayment assistance programs for veterinary
  professionals who commit to working in low cost or shelter clinics for a period of
  time would increase access to veterinary care for underserved populations." In response,
  138 (27%) strongly agreed, 213 (42%) somewhat agreed, 81 (16%) neither agreed nor
  disagreed, 43 (9%) somewhat disagreed, and 29 (6%) strongly disagreed.

#### Responses from DVMs only:

• DVM respondents were asked, "Knowing that there are federal loan forgiveness and repayment programs for working in designated veterinary shortage areas, how likely would you be (or would you have been at the beginning of your career) to work in the following settings to provide care to underserved pets if there was also a state-wide loan repayment assistance program for veterinary professionals who commit to working there for at least 3 years?" Below are their responses.

	# reporting extremely unlikely	# reporting somewhat unlikely	# reporting neither likely nor unlikely	# reporting somewhat likely	# reporting extremely likely
Low cost for profit clinic	42	31	27	51	24
Low cost non profit clinic	39	26	28	55	26
Shelter medicine	47	31	22	48	23

Responses from veterinary technicians only:



Veterinary technicians were also asked, "Knowing that there are federal loan forgiveness
and repayment programs for working in designated veterinary shortage areas, how likely
would you be (or would you have been at the beginning of your career) to work in the
following settings to provide care to underserved pets if there was also a state-wide loan
repayment assistance program for veterinary professionals who commit to working there
for at least 3 years?" Below are their responses.

	# reporting extremely unlikely	# reporting somewhat unlikely	# reporting neither likely nor unlikely	# reporting somewhat likely	# reporting extremely likely
Low cost for profit clinic	29	28	56	98	73
Low cost non profit clinic	28	24	57	96	76
Shelter medicine	40	29	49	83	77

## **Volunteering for Underserved Populations**

Responses from all DVMs, veterinary practice owners/managers, and veterinary technicians:

- When all respondents were asked if they volunteer or provide relief work for organizations that provide care to underserved areas/populations, 129 (26%) said "yes" and 363 (74%) said "no."
- Those that said "yes," were asked to describe the volunteer work they did. Responses included:
  - Volunteer at local shelters or rescues
  - Low cost vaccines and spay and neuter clinics fundraising and fostering
  - Donate services and products to provide care for pet owners with limited financial resources
  - Relief at emergency clinic or low cost clinic
  - Clinics for people experiencing homelessness
  - Drive in vaccine clinic
  - Served on board of animal rescue organizations
  - Mobile spay/neuter clinics
  - Volunteering for pet pantry



#### Foster

- When asked what barriers prevent respondents from engaging in volunteer or relief work, 81% selected lack of time, 37% selected stress level too high, 29% selected no economic incentive to do so, 14% selected don't know an organization to work with, 17% selected concern for personal liability, and 16% selected other. Other open-ended responses included unsupportive family, mental health challenges, distance too far, organizations that go to remote areas are selective/non responsive to inquiries or require you pay your way and are too costly, too exhausted, can't afford to take off any time to volunteer, not sure about sustainable impact, negative mental health impact of volunteering/heartbreaking to see how many animals in need, and wanting to spend time with the family.
- When asked how frequently respondents would volunteer to provide preventative care to underserved populations if there was a tax incentive to do so, 59 reported "never," 154 reported 1-2 times a year, 157 reported 3-6 times a year, 49 reported 6-9 times a year, and 82 reported more than 9 times a year.

# Perception on the Role of and Opportunities for Veterinary Technicians

- All respondents were given the following information and then asked a series of
  questions about their experience with and views on the roles of veterinary technicians.
   DVMs and practice managers were asked a suite of questions that were slightly different
  than what veterinary technicians were asked (although there was overlap among a lot of
  questions), so we report the results from these groups separately.
  - "The following questions ask about your perspective about and experience as/working with veterinary technicians. Veterinary technicians became regulated by the State Board of Veterinary Medicine beginning January 2023 and must be registered according to Part 2 of the Veterinary Practice Act. Throughout 2023, certified veterinary technicians (CVTs) will be transitioning to registered veterinary technicians (RVTs), so both titles will be included in the questions below. Existing research on RVTs/CVTs has found high rates of attrition of veterinary technicians due to factors including not being able to work at the top of their knowledge and training, no career path for advancement, and insufficient compensation. Further, studies have found that retaining and recruiting technicians can increase a clinic's efficiency, particularly when there is a 1:1 or greater ratio of veterinary technicians to veterinarians. We therefore want to hear about your experience as/working with veterinary technicians and your perspective on various proposed programs and policies for how the profession can better train, utilize, and retain technicians."



#### Responses from all DVMs and veterinary practice owners/managers:

- On average, practice managers/owners and DVMs reported that they had 5.8 full-time equivalent (FTE) registered/certified veterinary technicians (RVT/CVT) in their clinic. On average, they reported having 1.8 RVT/CVTs per veterinarian in their clinic.
- On average, practice managers/owners and DVMs reported that 2.9 would be the ideal number of veterinary RVTs/CVTs per veterinarian in the clinic to maximize efficiency and number of patients treated.
- When asked how often DVMs perform duties that RVTs/CVTs could perform, 6 (3%) said never, 41 (20%) said rarely, 72 (35%) said sometimes, and 85 (42%) said often.
- When asked what tasks they perform that they think veterinary technicians could perform to make their practice more efficient, responses included:
  - Call clients to discuss blood work, prescription information, or other follow ups
  - Scheduling with clients, going over estimates and invoices with clients
  - o Bandaging, skin closure, suture removal, bonded sealants, wound repairs
  - Surgery preparation
  - o RX, CRI calculations
  - o Cleaning, checking in rooms
  - Vaccinations or vaccine boosters
  - Sample collection
  - Restraint
  - Nail trims
  - Refilling prescriptions, dispensing medications
  - Express anal glands
  - Blood draws, fecal samples, venipuncture, cytologies
  - Make diagnostic estimates for common presenting complaints
  - Lab work/sample processing/sample collection
  - Placing intravenous catheter, epidural placement
  - Microchipping
  - Some rechecks/follow ups, such as ear infections/surgery sites
  - Some records/notes/paperwork
  - Intake/history, vital signs, wellness visits, client history
  - Induce/monitor/recover anesthesia
  - Behavior consults
  - Dental extractions, gingival closure
  - Euthanasia
  - X Rays, radiographs, laser treatments
  - Inventory management and ordering
  - Client education (e.g., about nutrition/weight loss) and resolution
  - Joint scrubbing

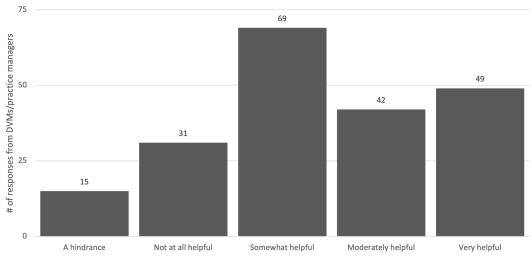


- Diagnostics, patient monitoring
- Abscess draining
- Ear cytology; cleaning ears
- Heartworm and flea/tick tests and treatment
- Necropsy
- Dehorning
- Pregnancy determination/Preg checking cattle; simple calvings/lambings
- Admitting/hospitalizing patients for common diseases such as parvo
- When asked what currently prevents your technicians from performing these tasks, responses included:
  - Being understaffed/not having enough technicians/practice managers not willing to increase the number of technicians
  - Technicians new the practice
  - Technicians not sufficiently trained
  - Technicians not having enough time/already busy with current tasks
  - o DVMs not approving/lacking trust in technicians/preferring to do it on their own
  - Practice owner/corporate regulations/hospital rules
  - Being too busy to assign technicians/ provide advanced training for technicians
  - Concern about no scope of practice for technicians under state board; leads to hesitate about delegating tasks
  - Current policies for client resolution
  - Lack of consistent education and standards from practice management
  - Concern about lack of personal investment/responsibility for keeping quality medical records
  - Technicians don't feel comfortable/have confidence to perform tasks
  - Poor workflow/lack of clinic expectations/inclusion in technician job description/delegation
  - Technicians not being able to legally sedate or perform other tasks/procedures without a veterinarian providing direct on-site supervision
  - Concerns about liability
  - Concern about/previous experience with mistakes
  - Need scope of practice expansion/allowance and professional training so technicians can perform some tasks (like dentistry)
  - Don't have an RVT/CVT, can't find certified technicians
  - Lack of CE for technicians
- Respondents were given the question, "some discussions have occurred about the
  potential for policy clarifying what tasks are appropriate for delegation under specific
  levels of supervision by veterinarians to CVTs/RVTs. How helpful would this be for you to
  more efficiently work with the veterinary technicians in your practice?" In response, 15
  (7.3%) reported "a hindrance," 31 (15%) reported "not at all helpful," 69 (33.5%) reported



"somewhat helpful," 42 (20.4%) reported "moderately helpful," and 49 (23.8%) reported "very helpful."





- Respondents were given the question, "In 2020, the Community College of Denver (CCD) announced a new Veterinary Technology U.S. Department of Labor Registered Apprenticeship Program, in which student apprentices work part time receiving structured on-the-job training at clinics in addition to hours spent in school to receive an Associate's Degree. How willing would you be to hire a part-time veterinary technology student apprentice through a similar program?" In response, 19 (9%) reported "not at all willing," 68 (33%) reported "somewhat willing," 57 (28%) reported "moderately willing," and 61 (30%) reported "very willing." Respondents were then asked if their willingness to hire this student would increase if offered a grant to cover the costs of paying the student's hourly rate. In response, 23 (11%) reported "not at all," 41 (20%) reported "slightly increase," 51 (25%) reported "moderately increase," and 89 (44%) reported "greatly increase."
- Respondents were then asked why they would be willing or unwilling to hire a student through this program, responses included:
  - o For those willing:
    - Can help train the technician in a real world setting, which is what they need in addition to school-based education
    - Enjoy teaching; teaching can help everyone in clinic learn
    - Can help train the student to specific practices of the clinic which can help the clinic in the long run
    - Can help find quality help; especially if there is a chance at retaining them as full time staff/difficult to find quality help right now
    - Helps technicians graduate sooner with less debt



- Currently technicians don't get enough hands on experience; can help address that
- Could help address staffing shortages/workforce challenges/ build a pipeline of qualified vet techs
- Had great experiences with technician externships already/some have turned into employees
- Helpful to get to know the technicians in practice to see if they would be a good long term employee
- Had personal experience receiving on the job training and thrived
- o For those unwilling:
  - Once they are trained they will likely to leave, so wasting time with training someone temporary
  - Had experience with technician externships and didn't go well
  - Time consuming and costly to train/don't have time because short staffed already
  - Clinic is too fast paced, may not be best place for a student/particularly for ER setting
  - Wouldn't increase efficiency or profit
  - Not enough work to make it worth the student's time
  - Already have qualified RVTs/market for techs saturated
  - Worried student may not have the skills, professionalism, reliability, or maturity needed for the clinic/concerned they may make a mistake or not adhere to standards
  - Not in charge of hiring/up to corporate practice
  - Training is distracting from daily tasks
  - Liability concerns
  - Would only consider if guaranteed that techs already have some entry level of theoretical/practical training
  - The on the job training they receive may not be sufficient because hospitals are understaffed/ quality of apprenticeships rely on quality of clinic
- Respondents were asked the question, "How confident do you feel in assessing the
  capabilities, skills, knowledge, etc. of the veterinary technicians/specialists in your
  clinic?" In response, 3 (1%) reported they were "not at all confident," 22 (11%) reported
  they were "somewhat confident," 61 (30%) reported they were "moderately confident,"
  and 119 (58%) reported they were "very confident."
- Respondents were asked if they would take a CE course on leadership development that covers assessing the capabilities, skills, and knowledge of RVTs/CVTs and applying that assessment to fully utilize the demonstrated, tested, competence of RVTs/CVTs?
   161 (78.5%) responded "yes," and 44 (21.5%) responded "no." As a follow up,



respondents were asked, "Why would you or wouldn't you take this course?" Responses included:

- For those willing to take it:
  - To help the profession
  - Want to empower technicians
  - Would improve clinical outcomes and case work
  - Help the team strive for excellence
  - Understand what we can do legally and how to do these things
  - Leadership/mentorship training generally lacking for DVMs that have graduated and been working for years
  - Love learning/more education generally
  - Want to learn how to manage patient safety concerns as technicians step up their skills (eg anesthesia, diabetic education, etc)
  - Want to have a genuine understanding of how to assess skills of technicians
  - Course would facilitate consistency in the profession on evaluating technicians
  - Want to create a better system for evaluating and guiding technicians
  - Want to help strengthen training program for technicians, identify areas of growth, get closer to their goals, and be a better manager overall
  - Help evaluate if a potential hire is a good fit
  - Can help give better feedback to technicians and hopefully increase retention
- For those unwilling to take it:
  - Already confident in assessing and helping technicians
  - Already too many courses to take
  - Don't use technicians
  - Too busy
  - Limited by the state of colorado on how many hours of our required continued education can be from non medical content (and leadership training is non-medical)
  - Would need management to be willing to implement changes as a result of the course
- Respondents were asked, "How knowledgeable are you about the Veterinary Technician Specialist (VTS) credential?" In response, 51 (25%) reported they were "not knowledgeable at all," 63 (30%) reported they were "slightly knowledgeable," 59 (29%) reported they were "moderately knowledgeable," and 34 (16%) reported they were "very knowledgeable."
- Respondents were asked if they currently employ any Veterinary Technician Specialists (VTS's)? 26 (13%) reported "yes" and 179 (87%) reported "no." As a follow up question, we asked respondents, "What influences your decision-making on whether or not to hire



Veterinary Technician Specialists over RVTs/CVTs without this designation?" Responses included:

- Never had VTSs apply/ no availability of VTSs
- Whether they can contribute to educational program or train CVTs/RVTs in practice
- Not at practice where VTSs can excel in specialty/waste of skills/don't have breadth of work available to utilize VTS
- No need for technicians with a speciality training in practice
- VTS may provide more value/are for specialty practice rather than GP
- Inability to offer competitive pay for VTS
- Would have to revamp pay structure and create role that matches the skills and value of a VTS
- Concern over employee overstepping actual knowledge and causing a problem or missing a diagnosis
- Interested in hiring a rehabilitation certified CVT for practice
- Rural mixed practice is not a typical area where VTS would apply/ cost of living too hire for technicians to work in are
- VTSs have advanced training in their specialty and can provide important leadership skills to a team
- Clinic owners/managers don't want to pay premium for VTS
- Liability of VTSs practicing their speciality
- Don't know what value VTS can provide over CVT/RVT
- Increased ability VTS may enable to provide excellent care
- DVMs and practice managers/owners were given the following information: "There have been some conversations around expanding the roles of RVTs/CVTs, particularly those with the VTS designation. A gap in existing knowledge around this topic is to what extent veterinarians are performing tasks that could be productively delegated to veterinary technicians. Veterinary professionals and stakeholders may have different perspectives on this idea of expanding the roles of RVTs/CVTs/VTS's, so we'd like to better understand your perspective on this topic. Specifically, we would like to know your comfort level around RVTs/CVTs or VTS's performing the following tasks, to inform conversations on whether they should become permissible in general practices under federal and state guidelines." We asked respondents to do the following: "For each task listed below, check if you would support an RVT/CVT and/or a specialty trained VTS completing the task if it is in their specialty area and under the supervision of a veterinarian. If you don't support either completing the task, don't check either box next to the task." Below are the responses from DVMs and practice managers/owners (Total number selecting each task for RVT/CVTs only, VTS only, or either RVTS and VTS, as well as the % who selected each out of 205, the number of respondents answering the previous question):



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	Either	RVT/CVT only	VTS only
Preventive medicine care (vaccines, parasite control)	109 (53%)	40 (20%)	20 (10%)
Establish a veterinary-client relationship	43 (21%)	20 (10%)	34 (17%)
Leadership development of veterinary teams	127 (62%)	30 (15%)	24 (12%)
Physical examinations, understanding when escalation to a DVM is needed	58 (28%)	24 (12%)	43 (21%)
Develop differential diagnoses and diagnostic plans, and understand when escalation to a DVM is needed	17 (8%)	9 (4%)	46 (22%)
Interpret laboratory and radiographic results, and understand when escalation to a DVM is needed	14 (7%)	5 (2%)	49 (24%)
Prescribe medication as allowed by Federal regulations, understanding when escalation to a DVM is needed	13 (6%)	5 (2%)	35 (17%)
End of life counseling and euthanasia	67 (33%)	16 (8%)	28 (14%)
Surgical procedures external to body cavity	19 (9%)	5 (2%)	37 (18%)
Spays for owned animals	1 (<1%)	4 (2%)	15 (7%)
Spays for animals in shelter situations	6 (3%)	4 (2%)	36 (18%)
Develop protocols for biological risk management	81 (40%)	14 (7%)	40 (20%)
Provide tele-triage	118 (58%)	28 (14%)	22 (11%)
Provide telemedicine,	64 (31%)	15 (7%)	26 (13%)



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understanding when escalation to a DVM is needed			
Dental procedures including single root tooth extractions and suturing of gingiva	51 (25%)	16 (8%)	44 (21%)
Dental procedures including multiple root tooth extractions and suturing of gingiva	14 (7%)	5 (2%)	50 (24%)
Coordinate case management between primary and referral veterinarian	106 (52%)	22 (11%)	27 (13%)
Diagnose and treat infections of the ears, eyes and skin, knowing when to refer/escalate to a DVM	32 (16%)	9 (4%)	36 (18%)

- Respondents (DVMs and manager/owners) were also asked if there are other specific types of procedures that they would support a VTS being trained in and practicing. Responses included:
  - Neuters (e.g. canine and feline)
  - Specialty nutrition counseling
  - MRI scans and radiographs
  - Anesthesia (e.g. critical care)
  - Owner callbacks and discussing lab results after vet's interpretation (e.g. discussing treatment plan changes)
  - Wound care (e.g. laceration repairs)
  - Behavior treatment/modification/counseling
  - Rehabilitation
  - Tube/catheter placement (e.g. IVC, urinary catheters in male awake dogs, venipuncture in birds and exotics, feeding tube placement, central line placement, cystocentesis)
  - Assess prescription refills, understanding when to escalate to a DVM
  - Prescribing flea/tick/heartworm preventatives without DVM escalation.
  - Dentistry (e.g. teeth floating on horses)
  - Emergency care (e.g. stabilization and CPR)
  - Ultrasound (e.g. abdominal, cardiac)
  - Rechecking (e.g. suture removals and monthly or bi-monthly injections (cytopoint, Solensia, etc), interpreting recheck blood work for T4)
  - Livestock pregnancy/birth (e.g. pregnancy checking cattle, calving/lambing)
  - Pain management (e.g. acupuncture)



- Hospice care
- Biopsy of skin lesions (e.g. cysts)
- Administration of chemo therapeutics
- Respondents indicated their level of agreement with the following statements:
  - RVTs/CVTs are difficult to find: 8 (4%) responded "strongly disagree," 18 (10%) responded "somewhat disagree," 15 (8%) responded "neither agree nor disagree," 73 (39%) responded "somewhat agree," and 74 (39%) responded "strongly agree"
  - It is difficult to keep RVTs/CVTs employed in my practice over time: 15 (8%) responded "strongly disagree," 38 (20%) responded "somewhat disagree," 41 (22%) responded "neither agree nor disagree," 55 (29%) responded "somewhat agree," and 38 (20%) responded "strongly agree"
  - Veterinary Technician Specialists are difficult to find: 4 (2%) responded "strongly disagree," 2 (1%) responded "somewhat disagree," 35 (21%) responded "neither agree nor disagree," 29 (17%) responded "somewhat agree," and 97 (58%) responded "strongly agree"
  - It is difficult to keep Veterinary Technician Specialists employed in my practice over time: 7 (5%) responded "strongly disagree," 5 (3%) responded "somewhat disagree," 89 (60.5%) responded "neither agree nor disagree," 13 (9%) responded "somewhat agree," and 34 (23%) responded "strongly agree"
  - Veterinary Technician Specialists can perform more types of tasks at a higher quality than RVTs/CVTs without the specialist designation: 11 (7%) responded "strongly disagree," 10 (6%) responded "somewhat disagree," 47 (29%) responded "neither agree nor disagree," 56 (35%) responded "somewhat agree," and 36 (23%) responded "strongly agree"
  - I would hire a Veterinary Technician Specialist (VTS) over a technician without the specialist designation if more VTS's were available: 11 (7%) responded "strongly disagree," 22 (13%) responded "somewhat disagree," 61 (37%) responded "neither agree nor disagree," 47 (28%) responded "somewhat agree," and 26 (16%) responded "strongly agree"
  - I would offer a higher salary for VTS's compared to veterinary technicians without the specialist designation: 5 (3%) responded "strongly disagree," 9 (5%) responded "somewhat disagree," 29 (17%) responded "neither agree nor disagree," 69 (39%) responded "somewhat agree," and 63 (36%) responded "strongly agree"
  - If more CVTs obtained a VTS designation, this would increase access to veterinary care for underserved populations: 43 (24%) responded "strongly disagree," 30 (17%) responded "somewhat disagree," 50 (28%) responded "neither agree nor disagree," 37 (20.6%) responded "somewhat agree," and 19 (10.6%) responded "strongly agree"



- Respondents were asked if more CVTs obtaining a VTS would positively benefit the profession.
  - All DVMs and veterinary practice owners/managers: 97 (51%) responded "yes,"
     33 (17%) responded "no," and 61 (32%) responded "not sure"
  - DVMs: 74 (51%) responded "yes," 26 (18%) responded "no," and 45 (31%) responded "not sure"
  - Practice owners/manager: 39 (49%) responded "yes," 14 (18%) responded "no,"
     26 (33%) responded "not sure"
- Respondents were asked if more CVTs obtaining a VTS would positively benefit their practice.
  - All DVMs and practice owners/managers: 76 (39%) responded "yes," 51 (26%) responded "no," and 66 (34%) responded "not sure"
  - DVMs: 57 (39%) responded "yes," 41 (28%) responded "no," and 49 (33%) responded "not sure"
  - Practice owners/managers: 28 (35%) responded "yes," 22 (28%) responded "no," and 29 (37%) responded "not sure"
- Respondents were asked to what extent they thought "more clear role delineation of the role of VTSs" would increase the number of CVTs receiving a VTS designation. 27 (15%) responded with "not at all," 42 (23%) responded with "slightly increase," 75 (40%) responded with "moderately increase" and 42 (23%) responded with "greatly increase"
- Respondents were asked to what extent they thought "more structured support (resident programs, mentorships) aimed at helping technicians obtain a VTS designation" would increase the number of CVTs receiving a VTS designation. 11 (6%) responded with "not at all," 43 (23%) responded with "slightly increase," 74 (40%) responded with "moderately increase" and 59 (32%) responded with "greatly increase"
- Respondents were asked to what extent they thought "Grant funds available to cover the
  cost of getting the designation" would increase the number of CVTs receiving a VTS
  designation. 16 (9%) responded with "not at all," 29 (16%) responded with "slightly
  increase," 54 (29%) responded with "moderately increase" and 88 (47%) responded with
  "greatly increase"
- Respondents were asked, "What other ideas do you have for increasing the number of CVTs pursuing a VTS designation?"
  - Guarantee of expanded job description (e.g., allow VTS to perform a broader range of tasks)
  - More awareness/education about VTS in general (e.g. education regarding this pathway in schools, advertisement and showing the importance to vets, addressed in high school to get awareness out there)
  - Financial incentives (e.g. increased pay, stipend/scholarship for learning, loan forgiveness/cancellation, decrease the cost of CVT/RVT programs, ability to maintain their current job and continue learning at the same time, figuring out a



way to generally have practices increase their salaries/pay rates for both CVTs and VTSs)

- Recognition by veterinarians in general practice
- More opportunities to go through the program requirements (e.g., online, more programs in areas that have small populations)
- Better regulated programs
- More appropriate job availability
- More effective test preparation programs
- Lighten the requirements of working directly with a specialist
- Providing incentives for learning to speak spanish or other languages
- Address the burn out in technicians

#### Responses from veterinary technicians:

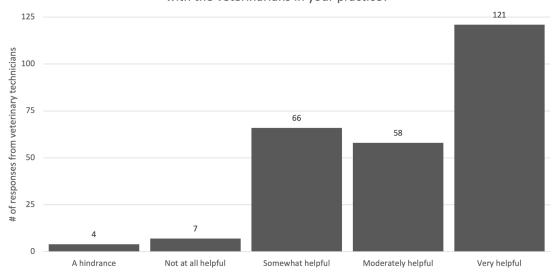
- On average, veterinary technicians reported that 2.8 would be the ideal number of veterinary RVTs/CVTs per veterinarian in your clinic to maximize efficiency and number of patients treated.
- When veterinary technicians were asked if there are tasks that DVMs perform that they believe they could perform to make their practice more efficient, responses included:
  - Anesthesia
  - X-rays, ultrasounds
  - Vaccinations
  - Tech appointments
  - Sutures/suture removal, bandage changes and placement
  - Performing basic diagnostics e.g, reading cytologies, interpreting radiographs and bloodwork
  - Post chemo recheck appointments (PE, blood work quick appointments)
  - o FNA's of LN's and tumors
  - Ear cytologies, Ear Hematoma drainage
  - Lab tests, saline smears, drawing blood, sample collection
  - Healthy lab work follow up phone calls to patients
  - Many large animal tasks- coggins/health certificates, colic management
  - Going over financial treatment plans with clients
  - Wellness exams
  - Dental extractions
  - Continued therapy treatments
  - Treating minor illnesses or scrapes/lacerations
  - Thoracocentesis, relieving urinary obstructions in male cats, abdominocentesis, POCUS exams
  - Restraining patients
  - Cat neuter



- Discharging patients or referring patients
- Putting together anesthesia/sedation protocols
- Placing catheters and epidurals and acupuncture needles
- Ophthalmology procedures (fluorescein stain, Schirmer tear test)
- Medication calculations/ordering prescriptions
- Starting/assisting with surgery; scrub-in for surgeries
- Basic deworming doses
- Cystocentesis
- Chest taps
- Assisting DVMs with notes
- Nail trims/torn nail removal, anal gland
- Rechecks for things such as ears
- Periodontal nerve blocks/extractions
- Screening client questions/messages and client communication
- When veterinary technicians are asked what currently prevents them from performing these tasks, responses included:
  - Lack of time to get trained in tasks and organize systems/schedule to perform tasks
  - Laws/rules and regulation of the state/scope of practice
  - DVMs not trusting/comfortable with techs performing tasks
  - DVMs worried about malpractice insurance/losing license due to tech performing under their license
  - DVMs enjoying performing the tasks themselves
  - Clinic policy
  - Not enough RVT staff to do these
  - Lack of training
  - Need for more trainings/education/certificate so can certified in these particular procedures
  - DVMs/practice managers not understanding the degree to which a VTS obtained advanced skill sets and utilizing them to their fullest
  - Not feeling comfortable performing tasks themselves
  - Pay is low; don't want to take on additional responsibilities with same low pay
- Veterinary technicians were asked, "Some discussions have occurred about the potential
  for policy clarifying what tasks are appropriate for delegation under specific levels of
  supervision by veterinarians to CVTs/RVTs. How helpful would this be for you to more
  efficiently work with the veterinarians in your practice?" In response, 4 (1.6%) reported a
  hindrance, 7 (2.7%) reported not at all helpful, 66 (25.8%) reported somewhat helpful, 58
  (22.7%) reported moderately helpful, and 121 (47.3%) reported very helpful



Clarifying tasks: How helpful would this be for you to more efficiently work with the veterinarians in your practice?



- When asked if they would take a course on how to work with veterinarians in your clinic to efficiently and effectively apply your skills as a veterinary technician, 220 (84%) replied "yes" and 41 (16%) replied "no."
- Technicians were given the following information about the VTS. "The following questions ask about your perspective on Veterinary Technician Specialists (VTS's). VTSs are credentialed veterinary technicians who have completed extra training in a specialty through a technician specialty academy and have passed a certifying exam. In general, VTS candidates must have worked as a credentialed veterinary technician for a minimum of three to five years." 21 (8%) of the veterinary technician respondents reported that they had a VTS credential, while 241 (92%) reported that they did not.
- The respondents who did not have a VTS credential were asked how knowledgeable they were about the Veterinary Technician Specialist (VTS) credential. In response, 31 (13%) reported "not knowledgeable at all," 79 (33%) reported "slightly knowledgeable," 74 (31%) reported "moderately knowledgeable," and 52 (22%) reported "very knowledgeable."
- The respondents who had a VTS credential were asked to describe whether this has led to financial or benefits in their career. Responses included:
  - Led to increased pay in some practices and not others
  - Led to extracurricular opportunities such as training or conferences
  - "No, it's just something I paid extra for that is dismissed and ignored"
  - "Sadly, there have been practically no changes for me after earning my VTS, but I attribute this to very poor management."
  - "No, it had not led to financial benefits."



- "I still earn the same as other techs who are not specialized. It really only gives me a leg up in knowledge in my area."
- Veterinary technician respondents were given the following information: "There have been some conversations around expanding the roles of RVTs/CVTs, particularly those with the VTS designation. A gap in existing knowledge around this topic is to what extent veterinarians are performing tasks that could be productively delegated to veterinary technicians. Veterinary professionals and stakeholders may have different perspectives on this idea of expanding the roles of RVTs/CVTs/VTS's, so we'd like to better understand your perspective on this topic. Specifically, we would like to know your comfort level around RVTs/CVTs or VTS's performing the following tasks, to inform conversations on whether they should become permissible in general practices under federal and state guidelines." We asked respondents to do the following: "For each task listed below, check if you would support an RVT/CVT and/or a specialty trained VTS completing the task if it is in their specialty area and under the supervision of a veterinarian. If you don't support either completing the task, don't check either box next to the task." Below are the responses from veterinary technicians (Total number selecting each task for RVT/CVTs only, VTS only, or either RVTS and VTS, as well as the % who selected each out of 236, the number of respondents answering the previous question):

	Either	RVT/CVT only	VTS only
Preventive medicine care (vaccines, parasite control)	148 (63%)	92 (39%)	8 (3%)
Establish a veterinary-client relationship	125 (53%)	69 (29%)	21 (9%)
Leadership development of veterinary teams	155 (66%)	59 (25%)	33 (14%)
Physical examinations, understanding when escalation to a DVM is needed	124 (52.5%)	51 (22%)	52 (22%)
Develop differential diagnoses and diagnostic plans, and understand when escalation to a DVM is needed	56 (24%)	20 (8%)	129 (55%)
Interpret laboratory and radiographic results, and understand when escalation to a	76 (32%)	22 (9%)	109 (46%)



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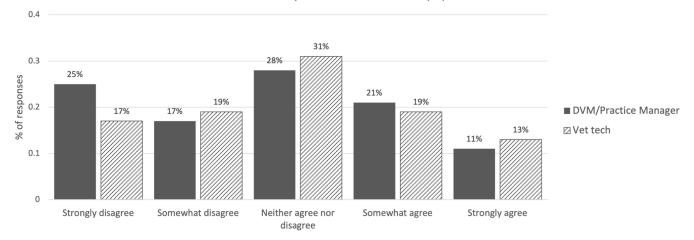
DVM is needed			
Prescribe medication as allowed by Federal regulations, understanding when escalation to a DVM is needed	59 (25%)	23 (10%)	105 (44.5%)
End of life counseling and euthanasia	122 (52%)	51 (22%)	43 (18%)
Surgical procedures external to body cavity	69 (29%)	19 (8%)	104 (44%)
Spays for owned animals	12 (5%)	8 (3%)	86 (36%)
Spays for animals in shelter situations	36 (15%)	13 (5.5%)	85 (36%)
Develop protocols for biological risk management	122 (52%) 33 (14%)		52 (22%)
Provide tele-triage	163 (69%)	55 (23%)	22 (9%)
Provide telemedicine, understanding when escalation to a DVM is needed	116 (49%)	36 (15%)	59 (25%)
Dental procedures including single root tooth extractions and suturing of gingiva	115 (49%)	44 (19%)	68 (29%)
Dental procedures including multiple root tooth extractions and suturing of gingiva	40 (17%)	16 (7%)	129 (55%)
Coordinate case management between primary and referral veterinarian	151 (64%)	47 (20%)	29 (12%)
Diagnose and treat infections of the ears, eyes and skin, knowing when to refer/escalate to a DVM	103 (44%)	35 (15%)	67 (28%)

• Respondents (veterinary technicians) were also asked if there are other specific types of procedures that they would support a VTS being trained in and practicing. Responses included:



- Suturing most wounds/minor laceration repair
- o Thoracentesis
- Acupuncture
- o Anesthesia
- Abdominocentesis
- Seeing low level to moderate level cases
- Root canals
- Foreign body surgeries, cystotomy, mass removals
- Respondents (technicians) were asked to what extent do they agree/disagree with the following statement: "If more CVTs obtained a VTS designation, this would increase access to veterinary care for underserved populations." 44 (17%) reported that they "strongly disagree," 49 (19%) reported that they "somewhat disagree," 79 (31%) reported that they "neither agree nor disagree," 49 (19%) reported that they "somewhat agree," and 33 (13%) reported that they "strongly agree."

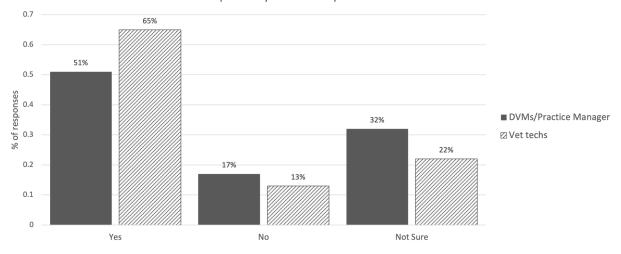
Agreement with the statement: "If more CVTs obtained a VTS designation, this would increase access to veterinary care for underserved populations."



 Respondents (technicians) were asked if more CVTs obtaining a VTS would positively benefit the profession. 167 (65%) responded "yes," 33 (13%) responded "no," and 57 (22%) responded "not sure"

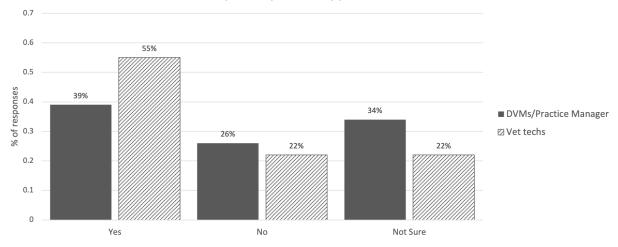


Agreement with the statement: "If more CVTs obtained a VTS designation, this would positively benefit the profession."



 Respondents were asked if more CVTs obtaining a VTS would positively benefit their practice. 141 (55%) responded "yes," 57 (22%) responded "no," and 57 (22%) responded "not sure"

Agreement with the statement: "If more CVTs obtained a VTS designation, this would positively benefit my practice."



- Respondents were asked to what extent they thought "more clear role delineation of the role of VTSs" would increase the number of CVTs receiving a VTS designation. 29 (12%) responded with "not at all," 74 (29%) responded with "slightly increase," 82 (33%) responded with "moderately increase," and 67 (27%) responded with "greatly increase"
- Veterinary technicians were asked to what extent they thought "more structured support (resident programs, mentorships) aimed at helping technicians obtain a VTS designation" would increase the number of CVTs receiving a VTS designation. 13 (5%)



responded with "not at all," 44 (17%) responded with "slightly increase," 81 (32%) responded with "moderately increase," and 115 (45%) responded with "greatly increase"

- Veterinary technicians were asked to what extent they thought "grant funds available to cover the cost of getting the designation" would increase the number of CVTs receiving a VTS designation. 6 (2%) responded with "not at all," 28 (11%) responded with "slightly increase," 62 (25%) responded with "moderately increase," and 157 (62%) responded with "greatly increase"
- Respondents (technicians) were asked, "What other ideas do you have for increasing the number of CVTs pursuing a VTS designation?" Responses included:
  - Outreach to CVTs on what VTS programs are available and how to obtain a VTS designation
  - Pay raises/economic incentives for getting the VTS designation- currently expensive to obtain and no pay increases
  - Reducing length of time/requirements needed to obtain VTS- increasing the number of levels of VTS certifications with less time needed to gain those levels
  - Outreach to DVMs on what VTS's roles could be above and beyond CVTs
  - Having a VTS for general practice/allow general practice RVT/CVTs easier access to be able to obtain a VTS.
  - More standardized and rigorous process to VTS achievement to ensure the VTS
    designation is respected and trusted in the profession e.g., curriculum and exams
    for VTS should be rigorous and advanced to ensure they are seen as having
    more knowledge and advanced skillsets, review of applications should be prompt
    and thorough
  - More mentorship programs to help RVTs become VTSs
  - Education in tech schools regarding this pathway
  - Make sure technicians in general are not under-utilized and underpaid and that there is title protection
  - Create large animal/livestock designation for VTSs
  - More financial aid/grant opportunities for RVTs to obtain a VTS
  - Creating residency programs for VTSs or internship rotations through speciality services
  - In person classes for VTSs at current vet tech schools
  - Defining VTS in the practice act, creating a scope of practice with tasks specifically allowed for VTSs
  - Job options for VTS that are still more patient care oriented than supervising/training/leadership
  - More time during working hours where RVTs can work on their VTS tasks
  - Loan forgiveness for obtaining VTS designation
  - Opportunities for paid internships and more information about what VTS positions are available.



More structured support in getting the VTS from other technicians, veterinarians.
 For example, hospitals or clinics offering to help achieve this in exchange for a certain amount of time dedicated to that clinic/hospital

## Perceptions of and Experience with Contextualized/Incremental Care

Responses from all DVMs and veterinary technicians:

- Respondents were given the following information and then asked a series of questions about contextualized/incremental care:
  - "Skipper et al. (2021) define "contextualized care" as a case management strategy that acknowledges that "different treatment modalities may be equally valid in different contexts. The most appropriate pathway for each patient and owner should be navigated through an iterative process of shared decision-making; we cannot separate clinic decisions from their social contexts." This concept of contextualized care aligns closely with the concept of incremental veterinary care, defined by the program for pet health equity as "a case management strategy that utilizes the intuitive judgment of the veterinarian to develop a tiered diagnostic and dynamic therapeutic options over time. 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 the following questions, we would like to know more about your perspective on implementing both contextualized and incremental care."
- Respondents were asked to what extent they agree or disagree with the following statements:
  - More widespread implementation of contextualized and incremental veterinary care in clinics would increase access to veterinary care for underserved populations: 16 (4%) indicated "strongly disagree," 33 (8%) indicated "somewhat disagree," 115 (28%) indicated "neither agree nor disagree," 142 (35%) indicated "somewhat agree" and 102 (25%) indicated "strongly agree." Overall, 60% of respondents somewhat or strongly agreed with this statement
  - I feel confident offering contextualized or incremental veterinary care for a given condition: 16 (4%) strongly disagreed, 28 (7%) somewhat disagreed, 106 (26%) neither agreed nor disagreed, 122 (30%) somewhat agreed, and 134 (33%) strongly agreed. Overall, 63% of respondents somewhat or strongly agreed with this statement



- I feel confident communicating with clients about the relative impact and cost of options along a spectrum of care: 6 (1.5%) strongly disagreed, 12 (3%) somewhat disagreed, 32 (8%) neither agreed nor disagreed, 140 (34%) somewhat agreed, and 219 (54%) strongly agreed. Overall, 88% of respondents somewhat or strongly agreed with this statement
- When asked what concerns respondents had about offering contextualized or incremental care, responses included:
  - Liability/being sued/ board complaints
  - Concern about push back that clinic didn't do everything they possibly could to help their pet because of money/ potential for later complaints about substandard care
  - Feel obligation to provide or offer the best care possible
  - Potential failure of in home care by clients or lack of follow through/ general lack of understanding by client for care expectations
  - Increased amount of follow up and client communication to reassess and add new treatments since the incremental care is less comprehensive than standard treatment; could result in more costly treatment down the line
  - Worry that client might feel judged or looked down on for being offered or taking lower level of care
  - Something clinic already does without this label
  - Need more research/information on this topic
  - Time consuming to create those plans and explain them to client/ too much to ask from overworked veterinary professionals
  - Concern about lack of follow through in ER setting/difficulty of incremental care in ER settings
  - Treating high income and low income pet owners differently; wrongly assuming about an owner's financial situation and inappropriately tailoring care options
  - Time/effort spent on this reduces overall number of clients can take in/may not have ability to take on the influx of clients in need of incremental care
  - Prolonging disease states of pets when aggressive care would shorten duration and might improve outcome/increasing adverse outcomes from procedures; relatedly, missing serious conditions which could be detrimental to patient
  - Avoiding non critical procedures could allow some conditions to progress
  - Corporate protocols
  - Not knowledgeable about how to do this and when to do this (especially as new DVM graduate)
  - Unsure how RVTs can help with incremental care
  - o Incremental care not possible for everything
  - People abusing the system (i.e.g, people who have the funds but don't want to pay for full care) or concern that clients truly can afford better quality care but choose to take the lesser option because they were offered it



- When asked what resources would help you better offer contextualized or incremental care to your clients, responses included:
  - Education to DVMs on providing a spectrum of care and communicating the spectrum to clients, particularly CE/videos, a website, and written information on the benefits and how to implement incremental care
  - Clear guidelines and support from the state board for incremental care so that DVMs know that they can't lose their license by offering many options and the owner choosing the least costly; specifically, guidelines for DVMs on what care to offer in what increments for different types of conditions
  - More staff with time and knowledge to provide incremental care options
  - o Hospital-wide SOP on providing incremental care for various conditions
  - Structured time to do phone calls with clients about incremental care
  - o Special grants/vouchers/discounts for individuals being offered incremental care
  - Vendors offering free products for incremental care
  - Educational videos and other outreach/education for clients to understand the
    process of incremental care and how they can advocate for their pet and be a
    cooperative part of their pets' care team; also outreach to clients on how to do
    simple things for their pets like giving fluids or administering medicine
  - o More affordable specialists and 24 hour hospitals to send clients to
  - Mobile technicians to help clients implement incremental care at home
  - Visual aids/cost breakdowns/handouts that DVMs can use/given to patients to explain options for various common conditions
  - Better education and awareness of this approach in vet school
  - Mentorships with practitioners who have experience providing this kind of care
  - Funds for incremental care cases
  - More research on incremental care options and costs
  - Some form of pre-qualification to ensure the person being offered incremental care indeed can't afford standard care options
  - Standardized legal documentation that owners could sign and agree upon stating they acknowledge that the care protocol decided on will not include every possible diagnostic and treatment available, but that is still a reasonable course of action
- When asked whether respondents would take a continuing education (CE) course on implementing and communicating contextualized care to clients, 341 (84%) said "yes," and 67 (16%) said "no."

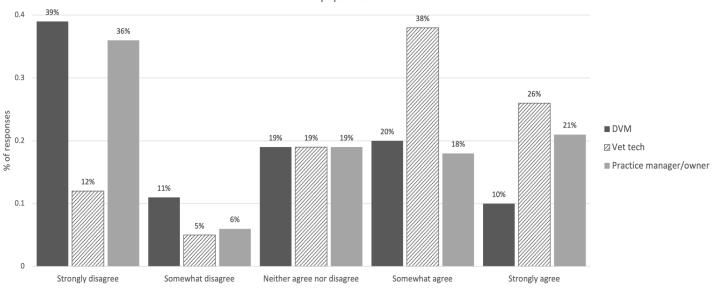


# Perceptions of the Mid-Level Practitioner/Veterinary Professional Associate

## Responses from DVMs, veterinary technicians, and practice managers/owners

- Respondents were asked, "To what extent do you agree/disagree with the following statement: "The development of a "mid-level" veterinary professional associate (VPA) through a Masters of Veterinary Clinical Care (MSB-VCC) degree would increase access to veterinary care for underserved populations."
  - All: 96 (23%) strongly disagree, 29 (7%) somewhat disagree, 82 (19%) neither agree nor disagree, 128 (30%) somewhat agree, 90 (21%) strongly agree
  - Veterinary technicians: 30 (12%) strongly disagree, 11 (5%) somewhat disagree,
     47 (19%) neither agree nor disagree, 93 (38%) somewhat agree, and 63 (26%) strongly agree.
  - Veterinarians: 56 (39%) strongly disagree, 16 (11%) somewhat disagree, 27 (19%) neither agree nor disagree, 29 (20%) somewhat agree, and 14 (10%) strongly agree.
  - Practice Owners/Managers: 26 (36%) strongly disagree, 4 (6%) somewhat disagree, 14 (19%) neither agree nor disagree, 13 (18%) somewhat agree, and 15 (21%) strongly agree.

Agreement with the statement: "The development of a "mid-level" veterinary professional associate (VPA) through a Masters of Veterinary Clinical Care (MSB-VCC) degree would increase access to veterinary care for underserved populations."





Respondents read the following text: "A gap in existing knowledge around the topic of a mid-level professional is to what extent veterinarians are performing tasks that they believe could be productively delegated to mid-level professionals. Veterinary professionals and stakeholders may have different perspectives on this idea of delegating roles to a potential mid-level practitioner, so we'd like to better understand your perspective on this topic. Specifically, we would like to know your comfort level around mid-level practitioners performing the following tasks, to inform conversations on whether they should become permissible under federal and state guidelines. For each task listed below, check it if you would support a mid-level practitioner completing the task under the supervision of a veterinarian. If you don't support a mid-level practitioner completing the task, don't check the box next to the task."

	Support for mid-level practitioner performing task (Total number selecting each task, % who selected each out of 425, the number of respondents answering the previous question)
Preventive medicine care (vaccines, parasite control)	334 (79%)
Establish a veterinary-client relationship	260 (61%)
Leadership development of veterinary teams	294 (69%)
Physical examinations, understanding when escalation to a DVM is needed	268 (63%)
Develop differential diagnoses and diagnostic plans, and understand when escalation to a DVM is needed	197 (46%)
Interpret laboratory and radiographic results, and understand when escalation to a DVM is needed	193 (45%)
Prescribe medication as allowed by Federal regulations, understanding when escalation to a DVM is needed	200 (47%)
End of life counseling and euthanasia	280 (66%)
Surgical procedures external to body cavity	185 (44%)
Spays for owned animals	72 (17%)



Spays for animals in shelter situations	139 (33%)
Develop protocols for biological risk management	247 (58%)
Provide tele-triage	313 (74%)
Provide telemedicine, understanding when escalation to a DVM is needed	255 (60%)
Dental procedures including single root tooth extractions and suturing of gingiva	237 (56%)
Dental procedures including multiple root tooth extractions and suturing of gingiva	156 (37%)
Coordinate case management between primary and referral veterinarian	287 68%)
Diagnose and treat infections of the ears, eyes and skin, knowing when to refer/escalate to a DVM	255 (60%)

- Respondents were asked, "Are there other specific types of procedures that you would support a "mid-level" veterinary professional associate (VPA) being trained in and practicing? If so, describe." Responses included:
  - Pregnancy Check Cattle, Float Horse Teeth, Regulatory Work (bangs vaccinations, coggins, TB and brucellosis testing, health certificates)
  - Breeding soundness exams on bulls
  - Neuters for shelter / unowned cats & TNR cats, possibly dogs
  - Behavior consults
  - Anesthesia
  - Laceration repair
  - Gonadectomies
  - Drug protocols
  - Acupuncture
  - C-sections
  - Preventative care
  - Simple cases such as UTIs, simple diarrhea, torn nails, small wounds, limping, nutritional counseling (including therapeutic diets), weight loss management plans, pain management plans
  - Indwelling urinary catheter placement
  - Other basic or uncomplicated surgical procedures such as castration, eye procedures, ear procedures, cystotomy etc.



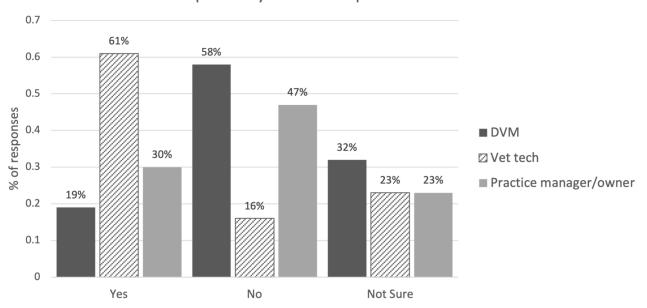
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- Medical progress exams where care, diagnosis and treatment plans have been developed by a veterinarian
- Complete clinic management/practice management
- Vaccines and some preventative care
- Managing in-hospital uncomplicated patient cases
- Behavior issues
- Diagnose and treat uncomplicated urinary, respiratory and GI disease
- Management of uncomplicated chronic conditions such as hypo/hyperthyroidism and OA
- Chest tube placements, advanced tube placements
- Bandaging
- Recheck exams of external issues like ears, skin infections.
- Respondents were asked "are there tasks that you engage in as a veterinarian in your clinic or organization that you think a trained "mid-level" veterinary professional associate (VPA) could complete instead but a veterinary technician or VTS could not?" 107 (27%) responded "yes," 150 (38%) responded "no," and 136 (35%) responded "not sure." For DVMs specifically, 36 (26%) responded "yes," 78 (56%) responded "no," and 25 (18%) responded "not sure." As a follow up we asked respondents who responded "yes" to list which tasks. Responses included:
  - Euthanasia
  - Minor procedures like laceration repair
  - Establishing vcpr for vaccines
  - Telehealth
  - Simple/routine/external surgeries
  - Dental extractions, complex dental procedures
  - Feline neuters, small exotic neuters
  - Abdominal surgery
  - Vaccines
  - Parasite control
  - Complex growth removal
  - Immobilization for radiographs or emergency services
  - o Prescribing medication e.g., non-controlled medication
  - Establishing care
  - Cost estimates, written discharge instructions
  - Diagnostics (e..g, diagnostic tests, diagnosing routine maladies)
  - Complicated lab interpretation
  - Castrations
  - Ultrasound
  - Extraction site closure /post abdominal surgery closure
  - Fecal interpretation and treatment protocols
  - Fine needle aspirates



- Physical exams, wellness exams
- o Communication tasks with clients
- Triage exam/phone calls
- Spays or other simple body cavity surgery
- Create treatment plans
- o Blood collection
- Nail trims
- Anal sac expressions
- Ear infection treatments
- Skin allergy treatments
- Respondents were asked, "Overall, do you think a veterinary professional associate (VPA) would positively benefit the profession?"
  - All: 195 (46%) responded "yes," 132 (31%) responded "no," and 97 (23%) responded "not sure"
  - Veterinarians: 27 (19%) responded "yes," 82 (58%) responded "no," and 32 (23%) responded "not sure"
  - Vet techs: 150 (61%) responded "yes," 39 (16%) responded "no," and 56 (23%) responded "not sure"
  - Practice Owners/Managers: 21 (30%) responded "yes," 33 (47%) responded "no," and 16 (23%) responded "not sure"

Overall, do you think a veterinary professional associate (VPA) would positively benefit the profession?



Corporately Owned Practices: 101 (59.4%) responded "yes," 33 (19.4%) responded "no," and 36 (21.2%) responded "not sure"



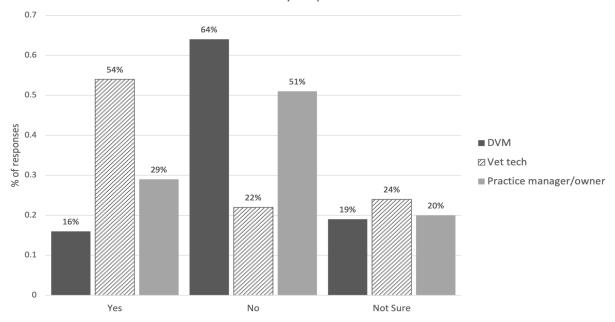
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- Non-profit Practices: 4 (44%) responded "yes," 4 (44%) responded "no," and 1 (11%) responded "not sure"
- Privately Owned (not corporate) Practices: 70 (38.5%) responded "yes," 70 (38.5%) responded "no," and 42 (23%) responded "not sure"
- Rural Practices: 20 (40%) responded "yes," 17 (34%) responded "no," and 13 (26%) "not sure"
- Suburban Practices: 100 (43.5%) responded "yes," 78 (33.9%) responded "no," and 52 (22.6%) responded "not sure"
- Urban Practices: 66 (53%) responded "yes," 29 (23%) responded "no," and 30 (24%) responded "not sure
- Companion/shelter: 162 (49%) responded "yes," 89 (27%) responded "no," and 78 (24%) responded "not sure"
- Large/mixed: 19 (37%) responded "yes," 24 (46%) responded "no," and 9 (17%) responded "not sure"
- Other: 12 (36%) responded "yes,"13 (39%) responded "no," and 8 (24%) responded "not sure"
- Respondents were asked, "Overall, do you think a veterinary professional associate (VPA) would positively benefit your practice?"
  - All: 174 (41%) responded "yes," 156 (37%) responded "no," and 93 (22%) responded "not sure"
  - Veterinarians: 23 (16%) responded "yes," 91 (64%) responded "no," and 27 (19%) responded "not sure"
  - Vet techs: 131 (54%) responded "yes," 54 (22%) responded "no," and 59 (24%) responded "not sure"
  - Practice Owners/Managers: 20 (29%) responded "yes," 36 (51%) responded "no," and 14 (20%) responded "not sure"



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Overall, do you think a veterinary professional associate (VPA) would positively benefit your practice?



- Corporately Owned Practices: 90 (53%) responded "yes," 42 (25%) responded "no," and 38 (22%) responded "not sure"
- Non-profit Practices: 4 (44%) responded "yes," 4 (44%) responded "no," and 1 (11%) responded "not sure"
- Privately Owned (not corporate) Practices: 63 (35%) responded "yes," 79 (44%) responded "no," and 39 (22%) responded "not sure"
- Rural Practices: 19 (38%) responded "yes," 20 (40%) responded "no," and 11 (22%) responded "not sure"
- Suburban Practices: 88 (38%) responded "yes," 90 (39%) responded "no," and 52 (23%) responded "not sure"
- Urban Practices: 57 (46%) responded "yes," 38 (30%) responded "no," and 30 (24%) responded "not sure"
- Companion/shelter: 144 (44%) responded "yes," 111 (34%) responded "no," and 73 (22%) responded "not sure"
- Large/mixed: 17 (33%) responded "yes," 23 (44%) responded "no," and 12 (23%) responded "not sure"
- Other: 11 (33%) responded "yes,"16 (49%) responded "no," and 6 (18%) responded "not sure"
- Practice owners/managers and DVMs were asked if they would hire a VPA in their practice. 47 (27%) responded "yes" and 129 (73%) responded "no"
  - DVMs: 29 (21%) responded "yes" and 109 (79%) responded "no"



- Practice managers and owners: 26 (38%) responded "yes" and 43 (62%) responded "no"
- Corporately Owned Practices: 18 (37.5%) owners/managers responded "yes" and 30 (62.5%) responded "no"
- Non-profit Practices: 1 (25%) responded "yes" and 3 (75%) responded "no"
- Privately Owned (not corporate) Practices: 25 (25.5%) owners/managers responded "yes" and 73 (74.5%) responded "no"
- o Rural Practices: 10 (38.5%) responded "yes," and 16 (61.5%) responded "no"
- Suburban Practices: 22 (22%) responded "yes," and 79 (78%) responded "no"
- Urban Practices: 14 (34%) responded "yes," and 27 (66%) responded "no"
- Companion/shelter: 37 (28.5%) responded "yes," and 93 (71.5%) responded "no"
- Large/mixed: 9 (31%) responded "yes," and 20 (69%) responded "no"
- Other: 1 (9%) responded "yes," and 10 (91%) responded "no"
- As a follow up, respondents were asked to describe why they answered yes or no to the previous questions.
  - Those in support of a VPA provided the following responses:
    - A mid level practitioner would take stress off vets, help address the heavy caseload/overload of patients
    - The VPA could see &/or do phone consults on patients the DVM does not have time or space to get on the schedule, could fend off some problems by providing prevention education/treatment
    - Would allow more animals to receive care; open up more appointments
    - There is an extreme shortage of DVMs, could help lighten their load and help them focus on cases/sick care rather than preventative care
    - It would allow practices to see more patients and be more efficient allowing DVMs to take care of the more complicated cases and taking some easier things off their task list
    - Time to take the industry to the next level and follow suit with human medicine, given PAs serve an important role
    - Provides new career pathway for RVTs interested in more schooling and expanding their roles, especially senior technicians who currently don't have a way to move up the ladder; as an RVT, would be interested in becoming a VPA because want to advance from an RVT but not become a DVM
    - Ability to delegate some of the rechecks and more simpler appointments
    - Allows DVM to focus on more critical cases
    - Could help in ERs that are overwhelmed
    - Could save clients money by providing services at a lower cost



- Would allow another career pathway for veterinary medicine that doesn't require as much debt; may recruit more people to the veterinary profession more broadly
- Too big of a gap in training between technicians and DVMs right now; need something in the middle to help fill this gap
- In an ER situation, adding an additional triage line for VPAs to treat in an outpatient situation would allow doctors to better dive deep into critical cases
- Availability of VPAs may be greater and compensation likely lower than an associate veterinarian
- Could free up DVMs for more surgeries
- Improve mental health, work-life balance among DVMs
- Currently having trouble hiring DVMs so VPAs could be hired instead to fill shortage
- Would help address shortage in rural areas as more higher level educated professionals would be graduated
- Those in opposition to a VPA or unsure provided the following responses:
  - Already have CVTs/RVTs, residents and interns that basically fill this role or could fill this role with more training or opportunities for existing positions (e.g., more RVTs going into the VTS designation)
  - Should elevate current technicians in scope of work they can perform at hospitals before creating a whole new role for people with larger debt
  - Additional info or research would better help decide, such as specific outlined duties of VPA, the type of training they would receive, etc.
  - Instead of creating a new VPA position should create career pathways for RVTs/CVTs
  - No personal liability or responsibility and no continuing education requirements for the VPA position
  - Corporate practices will use this to increase profits by trading veterinarians for multiple, lower paid mid levels; will only cheapen services for large corporations rather than helping small clinics
  - No indication these mid levels would work in underserved areas, especially when large corporations will offer much better pay for urban practices, incentivizing them away from shelters, poorer communities, etc.
  - VPAs will struggle to find jobs and be utilized
  - People who want full care from DVM won't be able to get it and will only be seen by VPAs
  - Overseeing a VPA would be another task DVMs would have to engage in that they would not have time for with currently caseloads; could take away from the number of critical cases seen in ER



- VPA would use up pay that should be directed at RVTS/CVTs; VPA doesn't address the poor employment, pay, and retention crises associated with technicians
- Belief mid-level practitioner idea has worked very poorly in human healthcare, increasing costs (from misdiagnosis) while decreasing quality of care.
- Adding a VPA to the current veterinary workforce will depress the role of RVTs/VTS and this could lead to even lower retention and less interest in the veterinary technician profession
- Concern about VPAs making mistakes, misdiagnosing due to lack of knowledge, delaying proper care
- Belief there needs to be clear rules, title protection, and scope of practice for RVTs and focus on empowering and using RVTs properly first before considering a VPA
- Concern about liability of having a VPA practice under DVM; would be more interested if they had to have their own licensure
- VPAs would do things that DVMs like doing/leave only the high stress complicated tasks to DVMs, which would raise stress of DVMs and prevent DVMs from forming long term relationships with clients; might result in all DVMs just turning into urgent care practitioners
- VPA would lead to a "cheapening" of the profession
- If VPA was affordable, profession would end up with more VPAs than DVMs, reducing the DVM shortage further
- VPA's would better serve in shelter situations or large referral or emergency practices than small practices
- Think VPAs wouldn't be treated/well, just another underpaid staff member with more debt than RVTs whose role is underutilized like RVTs currently are
- Clients expect procedures to be performed by the veterinarian; e.g., for rural practices or or solo house call practitioners
- ER practice requires fully trained DVMs; VPAs would be insufficient in this environment
- Many veterinarians wouldn't actually be able to choose if they wanted a VPA or not because of corporatization; Corporatization of the veterinary profession has already shown how veterinarians are in less control of how they practice
- Practice acts across state lines are already challenging to accommodate different requirements for different levels within the veterinary profession, so adding this would make it even more difficult.
- A veterinarian should be required to be in the facility as part of the definition of DVM oversight of VPAs



- A mid level practitioner with a masters can't produce enough in earnings for what their school debt would likely be
- Not sure what a mid level practitioner would contribute that a DVM or a technician could not; the list of tasks that a VPA could do could be undertaken by a VTS instead.

# **Experience with and Perceptions of Telemedicine/Telehealth**

Responses from DVMs, veterinary technicians, and practice managers

- Respondents were asked to what extent they agreed/disagreed with the following statement: "Expanding the use of telemedicine would increase access to veterinary care for underserved populations." 39 (9%) reported "strongly disagree," 45 (11%)) reported "somewhat disagree," 71 (17%) reported "neither agree nor disagree," 168 (40%) reported "somewhat agree," and 101 (24%) reported "strongly agree"
- Respondents were asked how often their office uses telemedicine:

Multiple times a day	73 (18%)
Once a day	10 (2%)
Multiple times a week	50 (12%)
Once a week	13 (3%)
Multiple times a month	33 (8%)
Once a month	23 (6%)
Less often	78 (19%)
Never	135 (33%)

 Respondents were asked which veterinary services their practice primarily uses telemedicine for (total number selecting each service and % out of 415 respondents completing the prior question):

Follow-up	227 (55%)
Triage	154 (37%)
After hours calls	69 (17%)
Pre-surgery visit	40 (10%)



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Post-surgery visit	100 (24%)
Client education	181 (44%)
Other	50 (12%)

- Responses for "Other" in the previous question included:
  - Behavioral consult
  - Health certificate consult
  - Herd health management decisions
  - o Review client's pictures they send us and answer their questions
  - o Teleadvice mainly for triage from a 24 hour chat/constant calls into ER
  - For working with established, good clients and answering their questions
  - Rehabilitation consultations
  - Pictures of skin or lacerations when don't have any space to see clients and they need advice on whether to go to ER
  - Deliver diagnostic/lab results
  - Review photos to determine if they need to come in right away or if can wait
  - Lab work
  - o Follow up with specific, illness or diagnostic related questions or after seeing ER
  - Al radiology
  - Refill for medications, changing medicine dosages
  - Consultations requested by the referring veterinarians
  - Anxious pets who struggle coming to the vet
  - Transfer of diagnostic imaging
  - o Post surgical follow up where suture removal is not needed
  - o For cases where client doesn't want to bring animal in for an exam
  - Simple issues such as allergy, anxiety, etc.
  - For those clients who have COVID or pets who are extremely aggressive, seniors, and/or their work schedule doesn't accommodate them.
- Respondents were asked which of the following barriers prevent full implementation of telemedicine into their practice (total number selecting each barrier and % out of 415 respondents completing the prior question):

Cost	63 (15%)
Technology	142 (34%)
Confusion over how to implement/charge for telemedicine	166 (40%)
Acceptance and training of personnel	129 (31%)
Client interest	110 (27%)



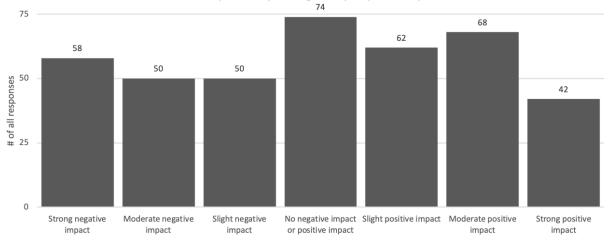
Decreased in-person caseload	44 (11%)
Revenue loss	98 (24%)
Other	101 (24%)

- Responses for "Other" in the previous question included:
  - Sometimes owners describe things very differently than what is happening
  - Legal concerns/liability
  - Owners do not completely understand what is causing the animal pain or discomfort
  - o Inaccurate/missing diagnosis due to no physical exam
  - When clients do actually come in, sometimes there are multiple problems the owner wasn't aware of/ in person exams allow all health issues to be identified and addressed
  - Need for clarity around what is permitted via telemedicine vs. telehealth/Lack of clarity in practice act about what is allowed
  - Client's ability to appropriately utilize technology, especially older owners
  - Lower quality medicine
  - State laws prohibiting establishing a VCPR via telehealth
  - Don't trust owners' judgment to correctly describe what is wrong
  - Telehealth for animals is different than for people because animals can't talk
  - Prescribing antibiotics without seeing client can contribute to antibiotic resistance because it's a "guessing game"
  - Not enough time/too busy to add telemedicine appointments/don't have staff to take this on
  - Corporation not interested/conflict with corporate policies
  - Clients are reluctant to pay for follow-ups via phone.
  - Not enough time to learn/implement additional software or forms of communication with clients
  - Don't make money off of telemedicine/ Not sure how to charge for emails/calls
  - Would prevent a client/patient relationship
  - Speciality practice requires in person visits
- Respondents were given the following information: "In May 2023 Senate Bill 1053 was signed into law in Arizona which allows veterinarians licensed in Arizona to establish a veterinarian-client-patient relationship (VCPR) through telemedicine. Veterinary professionals and stakeholders may have different perspectives on this idea of establishing a VCPR through telemedicine, so we'd like to better understand your perspective on this topic." Respondents were then asked, "To what extent do you think a similar law in Colorado would positively or negatively impact the profession?" 172/404 (43%) of respondents reported that they believed a similar law in Colorado would have a slight, moderate, or strong positive impact on the profession while 158/404 (39%)



reported that they believed it would have a slight, moderate, or strong negative impact on the profession.

Establishing VCPR through telemedicine: To what extent do you think a similar law in Colorado would positively or negatively impact the profession?



	DVMs	Vet techs	Managers /Owners	Corporate Practice	Private Practice (not corporate)	Non-profit Practice
Strong negative impact	33 (24%)	19 (8%)	16 (24%)	13 (8%)	34 (19%)	2 (22%)
Moderate negative impact	22 (16%)	26 (11%)	9 (14%)	20 (13%)	22 (12%)	2 (22%)
Slight negative impact	17 (12%)	26 (11%)	8 (12%)	22 (14%)	25 (14%)	1 (11%)
No negative or positive impact	14 (10%)	55 (24%)	8 (12%)	30 (19%)	31 (17%)	1 (11%)
Slight positive impact	16 (12%)	43 (19%)	6 (9%)	24 (15%)	26 (15%)	1 (11%)
Moderate positive impact	24 (17%)	37 (16%)	11 (17%)	32 (20%)	23 (13%)	2 (22%)
Strong positive impact	12 (9%)	25 (11%)	8 (12%)	18 (11%)	17 (10%)	0 (0%)



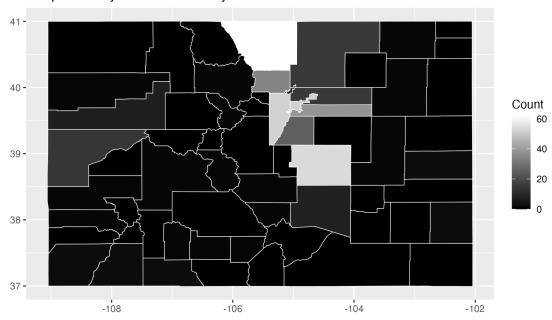
- Respondents were asked to what extent they agreed/disagreed with the following statement: "The ability to establish a virtual veterinarian-client-patient relationship (VCPR) through telemedicine would increase the amount of care that veterinary professionals could provide to underserved populations." 51 (13%) reported "strongly disagree," 55 (14%) reported "somewhat disagree," 88 (22%) reported "neither agree nor disagree," 151 (37%) reported "somewhat agree," and 60 (15%) reported "strongly agree"
- Respondents were asked, "Are there any resources that would help you better integrate telemedicine in your practice?" Responses included:
  - Less legal liability for veterinarians and/or more information about liability of making a diagnosis and treatment plan through telemedicine only
  - Continuing education on how to implement, charge, & what kinds of situations it is appropriate for, including a checklist of what should be in place for telemedicine
  - Step by step implementation process and instructions on technology to use
  - Legal clarification about establishing a VCPR and prescribing via telemedicine
  - Educational resources for clients to use telemedicine technology
  - Better internet, cameras on computer/phone, and programs that integrate video chat
  - Access to affordable telemedicine platforms that can easily integrate video and chat and that can connect with server like AVIMARK and save video into that client file
  - A process/platform where can easily charge for telemedicine consultation/integrate billing of telemedicine
  - Clear guidelines of what is considered practicing telemedicine, what can do legally via telemedicine, and when it is a valid VCPR; especially after covid emergency acts expire
  - Case studies of other practices, info on tools to help integrate and expand telemedicine
  - Grant money to purchase and implement telemedicine technology
  - A telemedicine expert who can come to the clinic and provide training on when/how to use and charge and where it could make clinic more efficient and save time



# **Demographics**

- Respondents had been in their current role an average (mean) of 11.7 years (Range = 0-47; Median = 9.25; Mode = 3)
- 51 (12%) respondents work in a rural setting, 232 (57%) respondents work in a suburban setting, and 126 (31%) respondents work in an urban setting
- County data:

Responses by Colorado County



- Year of graduation from veterinary/vet tech school ranged from 1976 to 2024
- Of veterinary technicians, 225 (94%) were registered/certified and 15 (6%) were not
- Of veterinary technicians, year of certification ranged from 1986 to 2024



# Appendix A:

Responses to "Is there anything else you'd like to share related to the topics of veterinary workforce challenges and access to care?"

#### Responses included:

- The addition of veterinary professionals only solves a small part of the greater issue; need to address burnout, debt, low retention especially among techs
- Need for more owners to get pet insurance so they can afford care (e.g, "Figuring out how to incorporate or better link pet insurance with hospitals and leverage this would help with maintaining our support staff if we had a better model after human medicine.")
- Need more pay and recognition and to create more protocols and title protection for credentialed veterinary technicians because technicians are severely underpaid and overworked and most technicians have at least 2 jobs. (e.g., "Technicians are severely underpaid and overworked. Most technicians have at least 2 jobs. Corporate companies do not pay their technicians what they are worth and do not value them. They take care of dvms- offering bonuses and pay then fairly. Without technicians dvm could not do their jobs.")
- Cost of education is less of the problem but rather the poor treatment and salary given to veterinary staff once they are employed
- o Cost of education is too high; need real ways to reduce student loan debt
- Mid-level professionals will still need technicians which there is a currently a shortage of
- More ER hospitals especially are needed to decrease caseload; lack of emergency care is becoming dire in some areas of Colorado. (e.g., "Pueblo county and surrounding counties are literally suffering without access to emergency medical care. We need a 24 hour ER facility established here for patients who desperately need it. Clients are having to drive over an hour for emergency care and most times their pet dies in the car on the way to Colorado Springs")
- "It is extremely discouraging and numbing to turn people away for care due to the inability to control costs. There are very limited options for low cost when we want to refer."
- Currently have difficulty hiring staff due to high burnout and cost of living
- As a veterinary professional, have trouble affording care for own pets
- Allowing applicants to take national exams in a language other than English (primarily Spanish) would foster a larger pool of available professionals that are likely able to work in and communicate with many underserved populations



- "Costs of veterinary care have gone up astronomically in the past 5 years with all
  of the competition between practices. The costs of utilizing ER medicine and
  specialty is getting to a point that so many cannot afford the care anymore."
- Need to figure out how to maintain support staff (i.e. technicians) and keep them engaged; people are becoming burnt out early and leaving the profession
- Need to focus on reducing loans for veterinary professionals including DVMs and techs; cost of education has outpaced what private practice can pay for technicians and DVMs
- Pet ownership is a privilege not a right, people should not have pets if they can't afford them
- VPAs will increase efficiency
- Mid-level will create medical errors and missed diagnosis
- Need to get corporations to stop undercutting veterinary practices
- Need to focus on using VTSs and skilled CVTs to their ability rather than midlevel practitioners
- More state regulation only increases time and costs for practices
- Biggest impacts on access to care would be helping with owner finances/economics and keeping DVMs/technicians in profession
- Telehealth won't improve access to care for underserved communities except in behavioral consults
- There is a deficit of veterinarians who want to work in general practice
- o A VPA could increase technicians' willingness to stay in the field
- Need to focus on retention of existing staff first in the veterinary profession before introducing more types of professionals who would experience same challenges and low rates of retention
- Every veterinary professional needs higher pay to account for stress and workload
- Lack of care and affordable care is a result of clinics and corporate entities underpaying staff, raising prices, and pushing DVMs to upsell client diagnostics and medication they don't really need
- No reason to think a client would be charged less to be seen by a mid-level practitioner; rather corporate entities and practice owners can just pay them less than a DVM and make more money, so this may not have an impact on access to care
- Lack of training in restraint of animals is leading to injury among professionals
- Corporate expectations with regard to labor and achieving certain patient numbers is leading to decline in mental health among veterinary professionals;
   Corporate takeover of practices have also made care financially inaccessible for more and more people.



- Should consider quality of care not just access to care; need to be careful of people always choosing the cheapest services which can contribute to patient suffering
- Biggest obstacle in rural areas is that there are not enough DVMs, not finances; "need loan forgiveness for DVMs practicing in these areas, and need DVMs who can operate without supervision/restriction and can do ER work and overnight work"
- "Access to care is vital in both urban and rural communities. Finding unique ways to provide this care is going to be a large focus of veterinary medicine in the next 10 years. I hope that groups working on this already can more readily collaborate and share information and resources to help further this goal."
- "Low-cost care clinics do benefit and would continue to benefit the community, but ours doesn't always stay open due to lack of staffing. Financial support for these low cost clinics could increase staff members and increase access to vet care in our community."
- "As long as the widespread application of costly services such as MRI or CT scans become more normalized, more and more potential clients will be priced out of routine or emergency veterinary care."
- "Corporate medicine will leverage VPAs to the max so that they can hire (and pay) fewer DVM staff. In the long run this WILL NOT help our profession or the 'underserved' animals this survey focuses on."
- "Also the costs of diagnostics are extreme now for clients and the cost of ER for even wealthy clients results in euthanasia, which mentally stresses the vet and client."
- "We are exhausted, asking us to volunteer even more time when we face such a high risk of burnout and compassion fatigue is unreasonable."
- "If there are funds, I would strongly encourage the funds to be used to decrease the costs of professional training for veterinarians and technicians. The bottom line is there is more work than there are practitioners - grants to expand access don't address the fact that there aren't enough hands to do the work, and the hands doing the work have sizeable loan debts, which leads to the need for increased client costs to pay off those debts."
- "Providing more incentive to those with a DVM to work in underserved areas would be of more benefit than creating an "intermediate" profession as it is already difficult to repay student loans and to find DVM's that are wanting to work/live in rural areas as large/mixed animal practitioners."
- "Would like to see something about the cost of a veterinary education addressed. I think some very talented people are excluded from the profession because they can't or are unwilling to take on crushing debt. My biggest concern with mid-level practitioners is that they will be hired for lower wages. I'd rather see more young



DVMs be able to start their careers without crushing debt. I think we would reduce their stress and retain them in the profession longer."

- "We are at a point where we either see as many pets as possible, knowing that it
  will result in substandard care or we just do the best for the patients we do see,
  knowing that there are pets who won't be seen at all."
- "Clients need to understand that vet care is a requirement when getting a pet.
   People should be educated on this and advised to not spend money on ridiculously expensive food, expensive toys, leashes, dog bowls, etc."
- CSU should put in more effort to fund scholarships to decrease debt load for graduates
- "Any mid-level practitioner will be exactly like any DVM or CVT they're going to follow the money, and the money is in corporate practice, not in a low cost non-profit that is paid for by government entities."
- Should focus on strategies to recruit veterinary professionals (of any level) to work in remote/rural areas as well as underserved areas
- "I am glad that CO is moving forward to look at how we can make positive changes."
- "Thank you for investigating these issues thoroughly and collaboratively looking for solutions!"
- "I feel that RVT/CVT/VTS would greatly benefit the veterinarian by being able to have more responsibilities so that we are able to help our veterinarians in their caseloads"
- "There is definitely a lack of opportunities for vet techs to develop a career in this profession which causes a lot of techs to leave the profession for good. I think potential for the position of Veterinary Professional Associate could open doors and retain so many techs in this field. I would be so keen to advance in my career as a vet tech without limiting myself to a specialty."
- "I feel some clients have trouble transporting their animals to vet appointments.
   Some sort of transportation service for clients and their animals could be helpful."
- "There is a lack of support after hours for emergency situations for low income clients which leaves a lot of animals without immediate vet care due to financial constraints."
- "As the cost of becoming a veterinarian has increased by a factor of at least 10 times what I paid for my education, the new grads must all take jobs with the highest salary so they can pay back their loans. Would love to see some of these grants you are considering being applied to education so that more vet students could graduate without such huge debts. Thus they might be able to take a job they actually want, instead of ending up working at a corporate practice."
- "Empowering licensed/certified veterinary technicians and VTSs to use their skills and knowledge to provide care in coordination with a DVM/VMD will correct the problems in our profession of retention and pay of those paraprofessionals and



increase access to care while avoiding the creation of yet another veterinary paraprofessional (VPA) that our profession will not use appropriately."

- Can large corporations cover pet insurance?
- "It seems that many veterinary "professionals" lose the ability to effectively communicate with underserved populations and only focus on patient care.
   Developing treatment plans that are achievable and inexpensive for clients is so important for patient and pet owner outcome"
- "Pay and inability to move up as a CVT has driven me to plan to leave the field in the next 2 years."
- "The development of the VPA within our profession will allow veterinary schools to continue to have high selection standards for both the VPA and DVM programs while also allowing applicants more focused educational options and the ability to choose a personally satisfying professional career path."
- "90% of the veterinary technicians I know can not afford to live without a room mate or without working multiple jobs. Let alone EVER being able to afford to buy a home and/or comfortably live without financial worry. It becomes challenging for even us in the veterinary field to provide adequate care for our own pets and families. But on top of all that the smaller private practices cannot afford to pay or provide their employees much, because of the clinic and owners own struggles with finances. Ultimately so many of them sell out to corporations now."
- "It's going to take ALOT of work from the government in order to make these things a reality. I'm not sure if making more professions in the veterinary workforce which is already very short of people is going to help the situation. We are all overworked, underpaid and mentally burnt out. We wouldn't be in this industry unless we loved and cared for the animals. But it's hard to take care of others when you don't feel like you can sufficiently take care of yourself. I love my job and my patients but I'm tired of so much struggling, for all of us involved. Nothing seems to change, it all seems the same. So many of us are just tired & frustrated and we don't know how or where to start to make it better. If you made it this far, thank you for listening to my concerns. I appreciate everyone who is trying to make a difference and make things better for pets since they are all too often a silent voice that is hard to get heard."
- "I feel bad for the pets that are owned by people who cannot afford them, but I don't feel that we need to offer them a discounted price because of this. It's hard enough for veterinary professionals to make their own ends meet that we cannot afford to offer discounted or donated services."
- "Too many non trained assistants. Come up with a grant for experienced technicians to train at other hospitals."
- "Rural areas of Colorado, namely in the southern half and southeastern corner struggle greatly with access to veterinary care due to the sheer shortage of practices and staff in these areas, not only general/wellness medicine but



especially emergency medicine. I believe these struggles all stem from the socioeconomic status of the rural areas which make it difficult to convince/hire qualified dvms and staff to relocate to the rural areas due to low wages, low standards of care, lack of continuing education/modern medicine practice, lack of local attractions and businesses, and finally the local population's level of awareness and education of appropriate pet ownership/medical care."

- "Great care must be taken to avoid creating under qualified professionals that oversimplify disease processes. I have major concerns for overuse of antibiotics, leading to harmful outcomes for not only individuals but for all involved in One Health initiatives"
- "Cost of veterinary education is a huge reason for a lack of access to care. Large animal (especially livestock) veterinary professionals are almost impossible to find. They can't afford to practice in rural areas after accruing so much student loan debt so they go to town and practice small animal medicine because they are paid more. As a result, livestock producers are underserved. Maybe creating a VPA position could help increase numbers of veterinary professionals available to serve livestock and large animals. But only if that program is more affordable than the cost of vet school."
- Concerned over new regulations that would dictate only CVTs could perform certain tasks.
- "Regulating technicians and making everyone pay to become registered will just cause a mass exodus of non credentialed techs. I am fearful for the impact we won't realize until next year of this move. As far as new technicians go, forcing them to attend over priced tech schools to make low salaries will not keep them in the profession."
- "We need to be asking, "how does this affect mental health of these professionals?" They are already overworked and underpaid, we get screamed at, verbally abused, sometimes physically abused by owners all of the time, and a lot of times, it is over cost and money. If the staff doesn't buy into ideas, cost, etc, then it is less likely the clients will either. I understand we want to try to cater to every pet owner in all aspects, but the staff are equally important. Without them, there is no industry. So, how can we better take care of the veterinary professionals?"
- "Client education about the true costs of veterinary care. Many people are looking for "cheap" prices. they don't understand that we do not have widespread insurance like we do in human medicine, so they feel we are intentionally making prices high for our own profit."
- "Hopefully there will be grants to fairly pay experienced RVT's, like myself, who believe in the cause, to work in this low cost care capacity. The need is HUGE. Thank you so much for trying to find a SOLUTION! And for gathering opinions and ideas!"



- "I wish that large veterinary corporations would reorganize and leverage their buying capacity to hold down costs for preventative care: exams, vaccines, diagnostics, spay/neuter programs and dental prophies. I understand the need to make a profit and current inflation, but some hospitals increase their rates for everything 2-3 times a year!"
- "Why would I go \$200,000+ in student loan debt to be a shelter medicine DVM or GP DVM when I could get an associates [for a VPA] for much less to get enough of that jobs tasks to have satisfaction? Would this not further increase DVM shortage? Where do CVT/RVTs who do not want to specialize further but want to be able to live comfortably fit into this from a financial aspects?"
- "I think making vet school more affordable and increasing vet techs pay and creating more roles that allow upward movement for techs would bring more people into the profession, as well as keep them."
- Offer externships to high school students
- "I also practice in Weld County where there are many spanish speakers and have found it difficult to be the only spanish speaker in the building most of the time. Without any support staff (nurses or CSR) who speak spanish, I am the person to discuss history, finances, and be the veterinarian all at the same time which can all be overwhelming for one person."
- "I think more information about mid-level practitioners is needed for proper decision making."
- "The solution is not in VPA or grants for owner's that have limited finances. The problem is having enough veterinarians in the demand in the areas and types of services that need them. More wellness clinics and limited service clinics are appearing and more corporate clinics in bigger areas but it does not appear that anything is being proposed to help build up existing clinics or drive or admit students that will be more likely to pursue busy, full service clinics that still see sick and emergency patients and emergency surgeries. If we get/keep more clinics in these areas with a wider range of services then the 24 hr speciality centers and shelters won't be as overloaded but at this rate more of the private practices are going to close doors and the problem will continue to get worse."
- "I like the VPA idea but you MUST give current RVTs access to that training, and it can't be by asking them to go through another 3 years of training and expense. We have to utilize our RVTs to their fullest and consider what specialty training is required on top of what they already know? The VTS help some with that but those are also time consuming and tedious. Just as we have grandfathered non-certified technicians into RVTs we need to have a consideration for how we grandfather really good RVTs into a VPA role that they are possible already doing (mostly anyway)."