

AAVSB Veterinary Team Survey: Understanding the Results

The American Association of Veterinary State Boards (AAVSB) released its conclusions of its 2023 survey which reached veterinarians and veterinary technicians across North America. The survey was focused on exploring the potential delegation of tasks within veterinary teams as well as the potential introduction of a midlevel veterinary practitioner under a valid VCPR.

After extensive analysis and discussion, the AAVSB Board of Directors has decided against pursuing the creation of a midlevel veterinary practitioner role at this time. The AAVSB will instead concentrate on identifying opportunities to expand and clarify the scope of practice for veterinary technicians.

"Our extensive survey revealed that while there is some interest in exploring the concept of a midlevel veterinary practitioner, there are significant concerns regarding implementation, such as training adequacy, regulatory impacts, and timing, especially considering that credentialed veterinary technicians are not being utilized fully at this time," stated Kim Gemeinhardt, DVM, President of the AAVSB. "Our commitment remains to public protection and ensuring accessible, quality veterinary care. The survey data demonstrates that veterinary technicians can and should be utilized more extensively to address gaps in veterinary care before a midlevel veterinary practitioner can be considered."

The decision reflects the AAVSB's strategic focus on enhancing the veterinary profession by supporting the functional capacities of veterinary technicians. This will involve exploring the possibility of modifying the pre-existing Model Regulations: Scope of Practice for Veterinary Technicians and Veterinary Technologists to detail the scope of veterinary technicians' practice while also maintaining the critical role that veterinarians play in establishing and maintaining a VCPR, diagnosing, prescribing, and performing surgery. The AAVSB plans to engage in thorough research and dialogue to shape this model document that supports this evolution within the field.

"Veterinary technicians play a critical role in animal healthcare, and being more explicit on their capabilities under a veterinarian's supervision will help us better serve the community while maintaining our standards of care and safety," added Dr. Gemeinhardt. "We are dedicated to exploring how these changes can be implemented responsibly and effectively while preserving the role of the veterinarian."

<u>Click to Download AAVSB Veterinary Team Survey:</u> <u>Understanding the Results</u>

The results of this survey are presented as a resource for the AAVSB Member Boards in "AAVSB Veterinary Team Survey: Understanding the Results." The results of the survey and this white paper will be discussed in more depth at the 2024 AAVSB Annual Meeting and Conference in San Diego, CA.



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Who We Are

The American Association of Veterinary State Boards (AAVSB) is a 501(c)(3) nonprofit corporation headquartered in Overland Park, Kansas. We are an association of veterinary medicine regulatory boards whose membership includes licensing bodies in 63 jurisdictions, including all of the United States, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and the ten Canadian provinces.

Vision: The AAVSB provides comprehensive information and services to enhance the efficiency of veterinary regulation.

Mission: To support and advance the regulation of veterinary medicine.

We value:

Protection of the public Reliability & accuracy Ethics & integrity Service excellence Active inclusion, participation, & collaboration Stewardship of resources

Who You Are

This paper is presented to aid and inform our Member Board members as you engage in conversations both within your Board and also with legislators. It explains our justification for the AAVSB's strategic path forward as approved by the Board of Directors.



Table of Contents

Executive Summary	3
Background	4
Methodology	6
Key Findings	7
Discussion	18
Next Steps	20
Additional Information	21
Appendix	22



Executive Summary

In 2023, the American Association of Veterinary State Boards (AAVSB) surveyed veterinarians and veterinary technicians to explore the potential expansion of roles within veterinary teams.

The main objective was to research solutions to veterinary workforce shortages. The survey aimed to assess the current roles and responsibilities of veterinary technicians and to explore the potential for expanding their scope of practice. Additionally, the survey sought to determine if a new role, the Advanced Animal Healthcare Provider (AAHP), was both necessary within the veterinary team and desired by current veterinary professionals.

The results indicate that most veterinarians and veterinary technicians support expanding the scope of practice of credentialed veterinary technicians rather than creating a new role within the veterinary team. Therefore, the AAVSB will focus on determining what tasks could be most appropriate for delegation, with the goal of aiding you, our Member Boards, as you work to ensure public protection and safe access to veterinary care.

The following data are the combined results from across North America and is presented for informative purposes only. It is not meant to dictate practices for individual jurisdictions. The AAVSB respects the varying needs within each jurisdiction and the expertise of individuals Boards to determine their best course of action.



Background

In 2013, the National Academies of Science documented critical workforce shortages within certain sectors of the veterinary profession. Despite current efforts, the trend has continued. In response, an increasing number of legislators are introducing bills to address the problem of limited access to veterinary care in unique ways, such as the creation of a midlevel practitioner or expanding the roles of veterinary technicians into a traditionally veterinarianexclusive scope of practice.



AR 2023

New law permits veterinary technician specialists to prescribe medication for a limited duration as part of a collaborative practice agreement with a licensed veterinarian.



CA 2023

New law allows registered veterinary technicians to establish a VCPR to administer vaccinations and prescribe ecto- and endoparasite treatments.



FL 2024

Bill introduced to create a veterinary practitioner associate. It passed the House but failed in the Senate.

Regarding a new practitioner, these conversations lack consistency when referring to what the role could look like and what tasks that individual could perform. Some assume that this new role would work independently from a veterinarian. In contrast, others maintain the supervisory role of the veterinarian over their team. Any assumption of any form would be an error, as this role has no consistent definition or standard scope of practice. The AAVSB, therefore, conducted a survey study to explore the level of interest within the North American veterinary community on these issues. The following results are presented to allow AAVSB Member Boards to understand the level of consensus for task delegation across North America and the veterinary profession.



The AAVSB's commitment is public protection.

We believe that allowing a veterinary shortage to continue with no solution is not public protection.

The public is not protected if the animal care is inadequate or unavailable. The public is not protected if the practitioner is not properly trained or credentialed.



Methodology

Our Steps

1) The AAVSB assembled a survey study task force with selected subject matter experts.

2) The task force developed relevant demographic questions, definitions, research questions, and a list of 100+ tasks.

3) A unique link was sent to approximately 190,000 veterinarians and veterinary technicians.

4) A third-party data scientist filtered and analyzed the data



Our Task Force

Regulatory Boards

Private Practice

Academia

State Government

Professional Associations

Psychometricians

Main Categories of Tasks within the survey



Tasks that are traditionally reserved for veterinarians but could potentially be delegated to another team member with additional training, education, and experience under a veterinarian's supervision.



Tasks that veterinary technicians can perform now under direct or immediate supervision, per the AAVSB Veterinary Technicians Scope of Practice Model Regulations, but could potentially be performed under lower supervision.

New Hypothetical Position: Advanced Animal Healthcare Provider (AAHP)

This is a hypothetical position that has received additional education and training beyond an associate's or bachelor's program and could include a Veterinary Technician and/or another individual that has received advanced training, education, and clinical experience outside of a current veterinary technician degree program. An accredited program and credentialing exam beyond those that currently exist would be required.

Survey assumptions retained the role of the veterinarian in establishing and maintaining a VCPR, delegation of tasks, and supervision of team members.



Key Findings

1 190,000

Survey sent to veterinarians and credentialed veterinary technicians

13,765



Demographics

United States: Population of respondents closely correlated to that of Veterinarians and Veterinary Technicians and the response rate was robust.

Canada: Low response rate indicates that Canadian data should not be evaluated separately.



Tasks Delegated to Veterinary Technicians

Both Veterinarians and Veterinary Technicians are largely supportive of broadening the veterinary technician scope of practice



Feasibility of Advanced Animal Healthcare Provider Role

While there was some interest in the concept of an AAHP, the results indicated that now is not the right time for its introduction. If it is ever developed, it should come from a veterinary technician background.



AAVSB Model Regulations: Scope of Practice for Veterinary Technicians and Veterinary Technologists

Majority of survey respondents agreed with the level of supervisions to the tasks currently in the AAVSB Model Regulation for Scope of Practice.

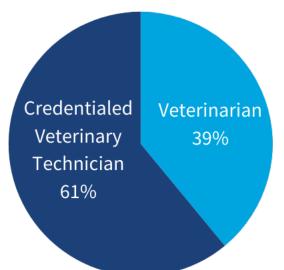


Demographics

Total responses from the United States, and the United States and Canada combined, far exceeded the requirements to achieve statistical significance. The same holds when comparing results from veterinarian vs veterinary technician populations.

Unfortunately, due to a low response rate from Canadian licensees, Canada could not be robustly evaluated as a separate population within this study. The likely reason for this was that licensee email addresses were sourced from the AAVSB database and Member Board contributions. Most Canadian provinces and some U.S. jurisdictions could not provide these email addresses, thus narrowing the

Total Respondents



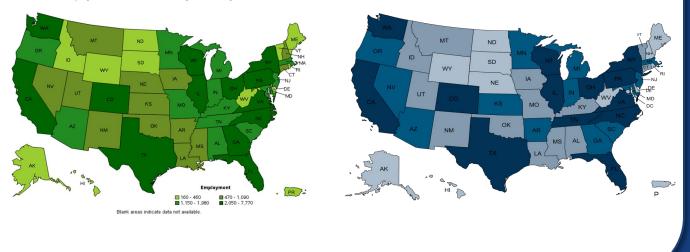
pool of potential respondents as the AAVSB's access to the licensee population was limited.

Robust publicly available data for **Type of Practice** populations within the U.S., allowed for comparison of the demographics of survey Equine (3%) Other (1%) respondents against the U.S. Mixed Animal (10%) veterinarian and veterinary technician population at large. Predominantly Comparing vital demographic **Companion Animal** data from U.S. respondents to the (7%) most recent demographics reported by both the AVMA and **US Bureau of Labor Statistics** Exclusively (BLS) reveal close correlation Companion Animal with primary jurisdiction of (79%) practice, primary work setting, and type of practice.



U.S. BLS Data vs Survey Respondents: Veterinarians

Employment of veterinarians, by state, May 2022

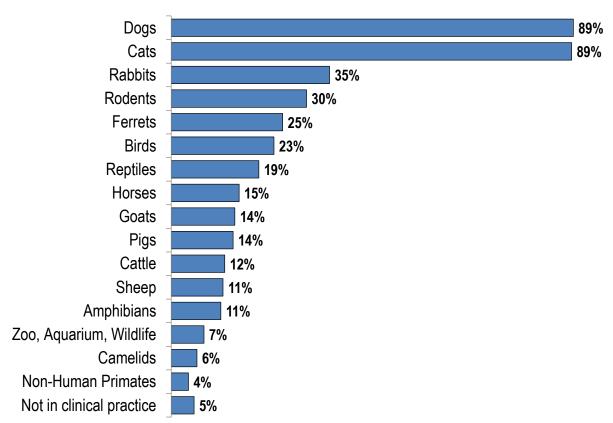


U.S. BLS Data vs Survey Respondents: Veterinary Technicians

мт мт ND ND SD SD WY NE NE UT KS KS OK NM ۵ . н PR 20 Empl oyme . PR -■ 600 - 1,620 ■ 3,300 - 13,230 ■ 170 - 590 ■ 1,640 - 2,970 Blank areas indicate data not available.

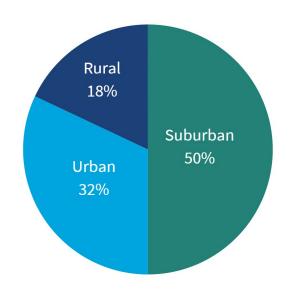
Employment of veterinary technologists and technicians, by state, May 2022





Primary Species of Practice of Survey Respondents

Primary Location of Practice of Survey Respondents





Tasks Delegated to Veterinary Technicians

Participants were asked to select solutions to *specifically* address Veterinary workforce shortages:

77%

of respondents agreed that veterinary technicians could take on additional responsibilities with additional training and education.

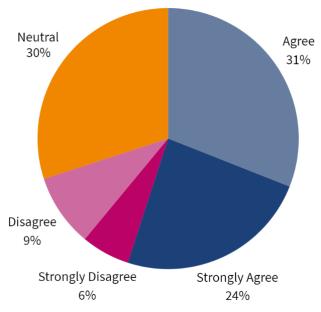
62%

felt that the scope of practice should be expanded for all credentialed veterinary technicians.

When asked *generally* if there should be a change in delegation or supervision, 55% of respondents either strongly agreed or agreed; only 15% disagreed or strongly disagreed. In the commentary section, many felt there was significant untapped potential within the veterinary technician profession, and the focus should be on expanding their scope of practice.

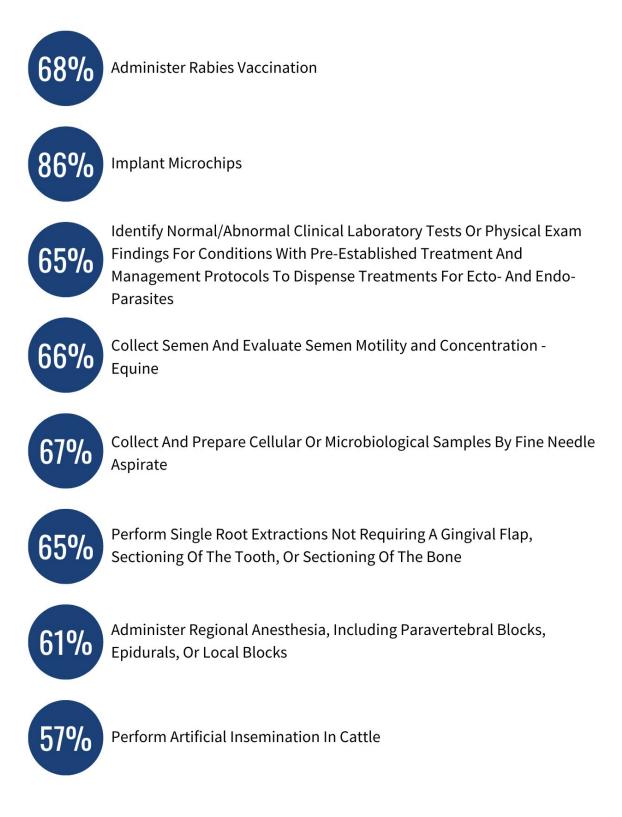
Survey participants were also asked to assign the minimum level of training and supervision required to complete a task. Respondents were clear that veterinarians should be the only professionals allowed to perform major surgeries, even routine ones such as canine or feline ovariohysterectomies. This aligns with current Veterinary Practice Acts.

Should There Be A Change In Task Delegation of Supervision?





Interestingly, some tasks received a majority of support for veterinary technicians to perform that may not be permitted under some Veterinary Practice Acts. These include:





Feasibility of Advanced Animal Healthcare Provider Role

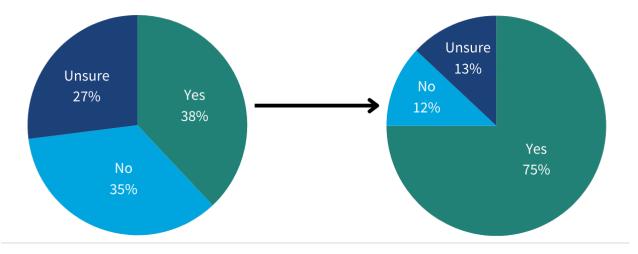
The survey explored the feasibility of introducing a new role within the veterinary team, the Advanced Animal Healthcare Provider (AAHP). While there was some interest in the concept of an AAHP, the results indicated that now is not the right time for its introduction.

When given the opportunity to comment, respondents expressed concern regarding the creation of a new profession when veterinary technicians are currently not being utilized to their greatest extent. A little over a third of total respondents expressed support for introducing an AAHP when asked this question in broad terms. Veterinary technicians were much more supportive of the potential new role, with 45% indicating yes, compared to veterinarians with 27% indicating yes.

The most straightforward response was that among those who felt there was a need for an AAHP, 75% thought that the AAHP must initially receive veterinary technician

education, training, and credentialing.

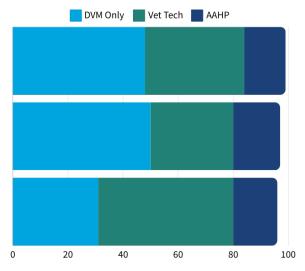
Is There A Need For The New Roles of An Advanced Animal Healthcare Provider? If Yes, Do You Think An AAHP Must Initially Receive Veterinary Technician Education, Training, and Credentialing?





Despite the fact that a third of respondents felt there was a need for an AAHP, when assigning a team member to a task, most participants were more likely to prefer that a task be performed by either a veterinary technician or a veterinarian. This trend held true even among those who answered that there was a need for an AAHP. More complicated tasks that one might predict would be assigned to an AAHP were instead delegated to a veterinarian or veterinary technician. Among the entire task list, the support for an AAHP to perform any task never exceeded 18%. Often, the support for a credentialed veterinary technician to perform the same task was more than double that, such as the tasks below:

What Is the Minimum Level Of Education and Training And Supervision You Think Should Be Required To Perform The Following Tasks?



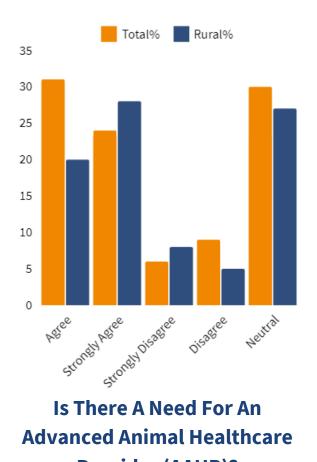
Perform feline castration, non-cryptorchid, on a shelter-owned animal

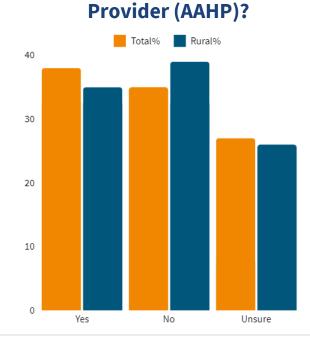
Perform physical exam to maintain previously established VCPR to refill a prescription under vet's authority for limited amount of time

Perform simple management of dystocia of a food production animal



Should There Be A Change in Task Delegation or Supervision?

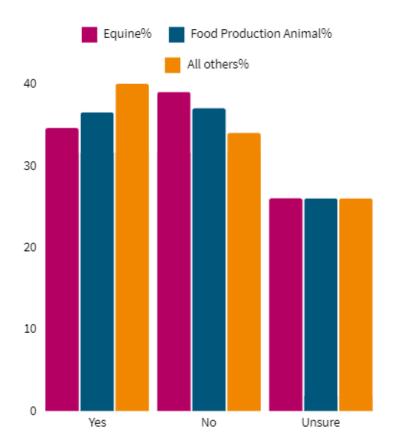




The veterinary workforce shortage is felt more acutely in rural areas than in urban or suburban areas. Although rural areas were <u>more or as</u> likely to support a broadening of task delegation, rural respondents were <u>less</u> likely to support the creation of an AAHP.



Is There A Need For An Advanced Animal Healthcare Provider (AAHP)?



Respondents who work with equine or food production species, arguably the areas with the most significant shortage, were <u>less</u> likely to indicate a need for an AAHP, compared to those who work with all other species combined.



AAVSB Model Regulations: Scope of Practice for Veterinary Technicians

Survey respondents agreed with the level of supervisions outlined in the AAVSB Model Regulation for Scope of Practice The AAVSB Model Regulations for the Scope of Practice for Veterinary Technicians and Veterinary Technologists provides a comprehensive framework for defining the scope of practice for veterinary technicians and veterinary technologists. It is available for use by Member Boards when developing their regulations, should that resource be desired.

The survey included tasks from this model regulation

for which the AAVSB recommended direct or immediate supervision. When asked about these tasks, survey respondents largely agreed with the supervision levels as outlined in that document.





Discussion

The survey results highlight the potential for expanding the roles of veterinary technicians within veterinary teams. By delegating more tasks to veterinary technicians with additional training and education, veterinary practices can improve efficiency and provide more patient care.

Further research and collaboration within the veterinary community will be necessary to determine the feasibility of introducing a new role such as the AAHP

However, introducing new roles, such as the Advanced Animal Healthcare Provider, requires careful consideration. While there may be a future need for additional providers to address workforce shortages and improve access to veterinary care in the future, the survey results suggest that now is not the appropriate time. There is an overall lack of support, especially in the areas with the greatest need such as rural practice. If veterinarians disagree with the necessity of a role, then they will not employ that individual. The AAVSB believes that it is critical to find acceptable solutions that will be used by all.

It is essential to prioritize maximizing the veterinary technician role. This involves ensuring that veterinary technicians are utilized to their fullest extent and exploring opportunities to expand their scope of practice within current statutory limitations. By investing in the development and training of veterinary technicians, the veterinary profession can address its challenges and ensure the delivery of high-quality veterinary care to all animals. The AAVSB believes that not only credentialing and regulating veterinary technicians but also protecting the title of Veterinary Technician are crucial steps to full utilization of this critical role.

Concern over how a task may be classified by the regulatory board may be contributing to the reluctance to delegate tasks. For example, 67% of respondents said that a veterinary technician could perform chemical pregnancy testing on a food production animal, yet that action may be interpreted as providing a *diagnosis* of pregnancy. Likewise, 65% of respondents felt that veterinary technicians could dispense treatment for parasites per protocols pre-established by the supervising veterinarian, yet this might be seen as *prescribing* by the regulatory board.



Confusion about a task's classification, and fear of disciplinary action by the regulatory board, may prevent veterinarians from delegating tasks. This uncertainty about the classification, and fear of disciplinary action by the regulatory board, may prevent veterinarians from delegating the task when they might otherwise be willing to do so. In the interest of public protection, some veterinary regulatory boards may consider these tasks to be *diagnosing* and *prescribing*. However, another board in another jurisdiction may consider those same tasks to be *providing the results of a test* and *dispensing per the orders of a veterinarian*.

All tasks are listed in the Appendix for review. The first set of charts in the Appendix provide the results for task designation solely to veterinary technicians, to

allow for improved focus on these. The second set of charts in the Appendix provides all the results for every task. The second chart illustrates an interesting finding: for many tasks that are traditionally thought of as within the veterinarian's scope of practice, a majority answered that this background was not essential. For example, while the plurality of respondents answered that only a veterinarian should perform recheck examinations (43%), the total responses for all non-veterinarians combined to perform this task were greater (56%). It is unknown what the response would be if the AAHP role was not an option.

Most responses to the AAVSB survey indicate that while a midlevel practitioner such as the AAHP may be a solution in the future, the first critical step is to ensure that veterinary technicians are used to the greatest extent of their scope of practice.

The AAVSB recognizes that this survey did not seek the opinion of most Executive Directors and Registrars of the AAVSB Member Boards. As the Regulatory Policy Committee revises the Model Regulations for the Scope of Practice for Veterinary Technicians and Veterinary Technologists, they will seek commentary from this population.



Next Steps

The survey results suggest that the focus should be on maximizing the role of veterinary technicians within veterinary teams rather than creating a midlevel veterinary professional.

AAVSB Member Boards may wish to take action on the following items:



Educate both veterinarians and veterinary technicians on the veterinary technician scope within your jurisdiction. Your Board may wish to highlight your jurisdiction's veterinary technician scope of practice through newsletters, webinars, or jurisprudence exams.

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Research and explore opportunities to expand the scope of practice for veterinary technicians, lower supervision requirements, or more clearly define your veterinary technician's scope of practice.

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Consider veterinary technician credentialing and strong title protection to allow non-veterinarian team members to perform more tasks, ensure the competency of those completing the tasks, and build trust both within the veterinary team and with the public.

The AAVSB has commenced next steps:

The AAVSB Regulatory Policy Committee (RPC) will utilize results from this survey in the forthcoming update of the AAVSB Model Regulations for the Scope of Practice for Veterinary Technicians and Veterinary Technologists. The RPC will consider what additional tasks can be added for veterinary technicians to perform and under what supervision. This document can serve as a resource to Boards reviewing scope of practice within that jurisdiction.



Additional Information

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Appendix

Survey participants were asked to select the MINIMUM level of education/training and supervision required to perform each task. The following results are the percentages of survey participants who answered that a veterinary technician could perform each task.

All Species

Description/Question Text	Indirect Supervision	Direct Supervision	Vet Tech Capable (Total)
Perform a non-emergency endotracheal intubation	40%	51%	91%
Induce and maintain general anesthesia	25%	66%	91%
Administer intravenous fluids	50%	38%	88%
Provide sedation	37%	52%	89%
Implant microchips	55%	31%	86%
Collect, prepare, and administer blood or blood component for transfusion or blood-banking purposes	41%	44%	85%
Administer controlled substances	35%	48%	83%
Administer vaccinations for zoonotic diseases such as equine encephalitis, anthrax, leptospirosis	41%	36%	77%
Administer rabies vaccination	33%	35%	68%
Collect and prepare cellular or microbiological samples by fine needle aspirate	34%	33%	67%
Place orogastric, nasogastric, or nasoesophageal tube	21%	43%	64%
Provide immediate emergency management of illness / injuries outside of a VCPR until veterinarian can be present	28%	35%	63%
Administer regional anesthesia, including paravertebral blocks, epidurals, or local blocks	16%	45%	61%
Monitor splints and slings for long-term immobilization of fractures or joint disorders	22%	38%	60%
Suture, staple, or glue an existing surgical skin incision	16%	44%	60%
Treat skin lesions and wounds without surgical procedure	23%	33%	56%
Suture, staple, or glue a superficial laceration	14%	41%	55%
Monitor casts for long-term immobilization of fractures or joint disorders	20%	35%	55%
Place esophageal tube	17%	35%	52%
Perform initial evaluation of superficial skin lesions	25%	27%	52%
Apply splints and slings for long-term immobilization of fractures or joint disorders	12%	39%	51%
Perform euthanasia of privately-owned animal with vet evaluation at presentation	21%	30%	51%
Lance and drain abscess	14%	36%	50%



Description/Question Text	Indirect Supervision	Direct Supervision	Vet Tech Capable (Total)
Place nasolacrimal catheter	13%	31%	44%
Apply casts for long-term immobilization of fractures or joint disorders	10%	34%	44%
Place epidural catheter	8%	32%	40%
Perform recheck examinations	16%	23%	39%
Perform abdominocentesis	5%	29%	34%
Collect and prepare cellular or microbiological samples by punch biopsy (epidermal and dermal with closure)	11%	23%	34%
Perform necropsy and collect and submit routine samples and images for pathologist review	15%	18%	33%
Perform physical exam to maintain a previously established VCPR to refill a prescription under veterinarian's authority for limited amount of time	11%	20%	31%
Perform wellness physical exams within a VCPR	12%	19%	31%
Place subcutaneous drain	7%	22%	29%
Perform thoracocentesis	3%	20%	23%
Perform euthanasia of privately-owned animal without vet evaluation at presentation	7%	14%	21%
Place abdominal drain	4%	16%	20%
Perform epidermal cryosurgery	5%	14%	19%
Remove uncomplicated small dermal mass	3%	14%	17%
Place thoracic drain	3%	13%	16%



Identify normal /abnormal physical exam findings for conditions with pre-established treatment and management protocols within the practice to:

Description/Question Text	Indirect Supervision	Direct Supervision	Vet Tech Capable (Total)
dispense treatments for ecto- and endo- parasites	31%	34%	65%
dispense treatments for basic illnesses	17%	24%	41%
recommend testing for abnormal physical exam findings	12%	22%	34%
approve any pending procedures or treatments	9%	17%	26%

Identify normal /abnormal clinical laboratory tests results for conditions with preestablished treatment and management protocols within the practice to:

Description/Question Text	Indirect Supervision	Direct Supervision	Vet Tech Capable (Total)
dispense treatments for ecto- and endo- parasites	30%	35%	65%
dispense treatments for basic illnesses	18%	25%	43%
approve any pending procedures or treatments	9%	18%	27%
recommend further testing for abnormal laboratory results	9%	18%	27%



Equine

Description/Question Text	Indirect Supervision	Direct Supervision	Vet Tech Capable (Total)
Administer standing sedation	23%	51%	74%
Collect semen and assess motility and concentration	28%	39%	67%
Evaluate semen morphology and motility	32%	34%	66%
Pass nasogastric tube for therapeutic purposes	20%	38%	58%
Pass nasogastric tube for diagnostic purposes	14%	36%	50%
Evaluate teeth and perform equilibration / tooth filing with hand instruments and sedation	15%	33%	48%
Perform artificial insemination: cooled, fresh, frozen AI	18%	28%	46%
Pass nasogastric tube in a foal (diagnostic or therapeutic)	11%	34%	45%
Evaluate teeth and perform equilibration / tooth filing with mechanical instruments and sedation	12%	31%	43%
Perform procedures to treat for colic	12%	30%	42%
Evaluate teeth and extract wolf teeth with sedation	6%	19%	25%
Perform Caslick's placement and removal	8%	17%	25%
Perform an initial colic evaluation, including rectal exam	8%	16%	24%
Evaluate teeth and extract non-wolf teeth with sedation	4%	14%	18%



Food Production Animal

Description/Question Text	Indirect Supervision	Direct Supervision	Vet Tech Capable (Total)
Process calves (vaccinate, implant, deworm, etc.	38%	39%	77%
Collect semen	31%	37%	68%
Perform chemical pregnancy testing	35%	33%	68%
Evaluate semen morphology and motility	31%	30%	61%
Perform artificial insemination for cattle	30%	27%	57%
Perform debudding / dehorning / disbudding procedures	23%	33%	56%
Perform nonsurgical castration	21%	34%	55%
Perform artificial insemination for small ruminants	25%	25%	50%
Perform simple management of dystocia	20%	29%	49%
Collect oocytes per veterinarian's written protocol	20%	28%	48%
Perform correction/delivery of nonsurgical dystocia	16%	25%	41%
Perform simple management of rectal or vaginal prolapse	13%	27%	40%
Conduct pregnancy exam by transrectal ultrasound	18%	21%	39%
Conduct pregnancy examination by rectal palpation	20%	20%	40%
Evaluate rectal or vaginal prolapse	14%	23%	37%
Perform simple management of uterine prolapse	10%	21%	31%
Collect embryos	11%	19%	30%
Evaluate uterine prolapse	11%	18%	29%
Perform heifer breeding soundness exam	13%	16%	29%
Perform bull breeding soundness exam	12%	16%	28%
Implant embryos	11%	18%	29%
Perform surgical castration	7%	14%	21%
Perform complex case management of rectal or vaginal prolapse	2%	6%	8%
Perform complex case management of uterine prolapse	1%	5%	6%
Perform LDA surgery	1%	3%	4%
Perform c-section	1%	2%	3%



Companion Animal

Description/Question Text	Indirect Supervision	Direct Supervision	Vet Tech Capable (Total)
Remove calculus, soft deposits, plaque, and dental stains	39%	52%	91%
Perform cystocentesis	38%	49%	87%
Collect semen	29%	37%	66%
Perform single root extractions not requiring a gingival flap, sectioning of the tooth, or sectioning of the bone	18%	47%	65%
Evaluate semen morphology and motility	29%	34%	63%
Perform ear flushing with pressure or suction	20%	42%	62%
Suture gingiva	13%	40%	53%
Place intraosseous catheter	10%	39%	49%
Perform feline urinary unblockage procedure	7%	31%	38%
Perform feline castration, non-cryptorchid, on a shelter-owned animal	6%	30%	36%
Perform artificial insemination	12%	23%	35%
Evaluate and perform nonsurgical management of canine / feline dystocia	7%	23%	30%
Perform surgical / multiroot extractions	3%	18%	21%
Perform feline castration, non-cryptorchid, on a privately-owned animal	3%	17%	20%
Place percutaneous endoscopic gastrotomy (PEG tube)	2%	14%	16%
Perform canine castration, non-cryptorchid, on a shelter-owned animal	2%	11%	13%
Perform canine castration, non-cryptorchid, on a privately-owned animal	1%	6%	7%
Perform feline ovariohysterectomy on a shelter-owned animal	1%	4%	5%
Perform canine ovariohysterectomy on a shelter-owned animal	1%	3%	4%
Perform feline ovariohysterectomy on a privately-owned animal	0%	2%	2%
Perform canine ovariohysterectomy on a privately-owned animal	0%	1%	2%

All Species (page 1 of 4)

Survey participants were asked to select the MINIMUM level of education/training and supervision required to perform the following tasks. The following contains all the results for every level of the veterinary team.

40%	6		51%		Perform a non-emergency endotracheal intubation
25%		66%	6		Induce and maintain general anesthesia
	50%		38%	5%	Administer intravenous fluids
37%			52%	5%	Provide sedation
	55%		31%		Implant microchips
410	Ио		44%	6%	Collect, prepare, and administer blood or blood component for transfusion or blood-banking purposes
35%		48 ⁰	/0	^{7%} 11%	Administer controlled substances
419	%	369	/o	12%	Administer vaccinations for zoonotic diseases such as equine encephalitis, anthrax, leptospirosis
33%		35%		23%	Administer rabies vaccination
34%		33%	5% 6%	21%	Collect and prepare cellular or microbiological samples by fine needle aspirate
21%		43%	7%	25%	Place orogastric, nasogastric, or nasoesophageal tube
28%		35%	8% 8%	17%	Provide immediate emergency management of illness / injuries outside of a VCPR until veterinarian can be present
16%	45%	6	7%	28%	Administer regional anesthesia, including paravertebral blocks, epidurals, or local blocks
22%	38	3%	5% 9%	25%	Monitor splints and slings for long-term immobilization of fractures or joint disorders
16%	44%)	8%	28%	Suture, staple, or glue an existing surgical skin incision
0% Vet Tech (Indir	ect) 📃 Vet 1	「ech (Direct)	AAHP (Indire	100% ect) A	(Unlabeled sections fewer than 5% of respondents) AHP (Direct) DVM Only N/A or Unsure



23%	33	% 7%	6 10%	26%	Treat skin lesions and wounds without surgical procedure
14%	41%		9%	31%	Suture, staple, or glue a superficial laceration
20%	35%	6%	9%	29%	Monitor casts for long-term immobilization of fractures or joint disorders
17%	35%	8%	35	5%	Place esophageal tube
25%	27%	% 7%	8%	32%	Perform initial evaluation of superficial skin lesions
12%	39%	8%	3	6%	Apply splints and slings for long-term immobilization of fractures of ioint disorders
21%	30%	5%	400	%	Perform euthanasia of privately-owned animal with vet evaluation at presentation
14%	36%	5% 9%	3	5%	Lance and drain abscess
13%	31%	9%	33%	10%	Place nasolacrimal catheter
10%	34%	8%	44%		Apply casts for long-term immobilization of fractures or joint disorders
8%	32%	10%	41%	5%	Place epidural catheter
16%	23%	8% 9%	43%		Perform recheck examinations
5% 2	.9%	10%	52%		Perform abdominocentesis
11%	23% 6%	10%	50%		Collect and prepare cellular or microbiological samples by punch biopsy (epidermal and dermal with closure)
15%	18% 7%	8%	50%		Perform necropsy and collect and submit routine samples and images for pathologist review
0% Vet Tech (In	direct)	ا Fech (Direct)	AAHP (Indire	100%	



11%	ó 20	0% 8%	10%	50%		Perform a non-emergency endotracheal intubation
12%	6 19	9% 7%	9%	53%		Induce and maintain general anesthesia
7%	22%	5% 11	%	53%		Administer intravenous fluids
	20%	9%		64%		Provide sedation
7%	14%	6%	65%	6	5%	Implant microchips
	16%	9%	65	5%		Collect, prepare, and administer blood or blood component for transfusion or blood-banking purposes
5%	14%	10%	59%	<i>/</i> о	8%	Administer controlled substances
	14% 5%	% 11%		65%		Administer vaccinations for zoonotic diseases such as equine encephalitis, anthrax, leptospirosis
1	L3%	8%	71%	, 0		Administer rabies vaccination
0%	t Tech (Indi	irect) Vet	Fech (Direct)	AAHP (Indired	100%	Unlabeled sections fewer than 5% of respondent (Unlabeled sections fewer than



All Species (page 4 of 4)

Identify normal/abnormal physical exam findings for conditions with pre-established treatment and management protocols within the practice to:

	31%			34%	6	8%	8%	18%	dispense treatments for ecto- and endo- parasites
17%	<i>,</i> 0	24%	6	8%	11%		39 ⁰	%	dispense treatments for basic illnesses
12%		22%	7%	9%		4	8%		recommend testing for abnormal physical exam findings
9%	17%	6%	9%			56%			approve any pending procedures or treatments
0%								100%	(Unlabeled sections fewer than 5% of respondents)

Identify normal/abnormal clinical laboratory tests results for conditions with preestablished treatment and management protocols within the practice to:

	30%				35%		8%	8%	19	%	dispense treatments for ecto- and endo- parasites
189	%	25	5%		8%	10%		38	%		dispense treatments for basic illnesses
9%	18%	60	% 9	%			56	%			approve any pending procedures or treatments
9%	18%	69	69	%			57	7%			recommend further testing for abnormal laboratory results
0%	ech (Indir	ect)	Ve	et Te	ech (Dir	ect)	AAH	P (Indire	ect)	100%	(Unlabeled sections fewer than 5% of respondents) AHP (Direct) DVM Only N/A or Unsure



Equine

2	.3%		51%	50	<mark>%</mark> 17%	Administer standing sedation
	28%		39%	6% 8%	17%	Collect semen and assess motility and concentration
	32%		34%	6% 7%	20%	Evaluate semen morphology and motility
20	%	389	% 5	% 6%	30%	Pass nasogastric tube for therapeutic purposes
14%		36%	5% 7%	3	7%	Pass nasogastric tube for diagnostic purposes
15%		33%	6% 9%	36	5%	Evaluate teeth and perform equilibration (floating)/tooth filling wit hand instruments and sedation
180	%	28%	7% 9%	36	5%	Perform artificial insemination: cooled, fresh, frozen Al
11%		34%	7%	43%		Pass nasogastric tube in a foal (diagnostic or therapeutic)
12%		31%	5% 8%	41%		Evaluate teeth and perform equilibration (floating)/tooth filling wind mechanical instruments and sedation
12%		30%	7%	43%		Perform procedures to treat for colic
6%	19%	5% 7%		61%		Evaluate teeth and extract wolf tooth with sedation
8%	17%	5% 7%		53%	10%	Perform Caslicks placement and removal
8%	16%	6% 6%		62%		Perform an initial colic evaluation, including rectal exam
14	1%	7%		70%		Evaluate teeth and extract other teeth with sedation
0%	ech (Indi	ract)	Tech (Direct)	AAHP (Indir	100 ⁰	(Unlabeled sections fewer than 5% of responder AAHP (Direct) DVM Only N/A or Unsure



Food Production Animal (page 1 of 2)

38%	6	39%	% <u>c</u>	9% <mark>5%</mark> 8%	Process calves (vaccinate, implant, deworm, etc.)
31%		37%	7% 8%	6 14%	Collect semen
35%		33%	7% 5%	15% <mark>5%</mark>	Perform chemical pregnancy testing
31%		30%	6% 6%	24%	Evaluate semen morphology and motility
30%		27%	9% 7%	23%	Perform artificial insemination for cattle
23%	33	%	7% 7%	26%	Perform debudding / dehorning / disbudding procedures
21%	34%	% 7 ⁰	% 9%	25%	Perform nonsurgical castration
25%	25%	8%	8% 29	9% <mark>5%</mark>	Perform artificial insemination for small ruminants
20%	29%	9%	7% 3	31%	Perform simple management of dystocia
20%	28%	7%	9% 29	% 6%	Collect oocytes per veterinarian's written protocol
16%	25%	8% 7%	42%		Perform correction/delivery of nonsurgical dystocia
13%	27%	8% 9%	41%	,)	Perform simple management of rectal or vaginal prolapse
18%	21%	8% 6%	44%		Conduct pregnancy exam by transrectal ultrasound
20%	20%	8% 7%	44%		Conduct pregnancy examination by rectal palpation
14%	23% 8	3% 7%	47%		Evaluate rectal or vaginal prolapse
0% Vet Tech (Indi	rect) Vet	Гесh (Direct)	AAHP (Indire	100% ect) 📕 AA	(Unlabeled sections fewer than 5% of respondents) AHP (Direct) DVM Only N/A or Unsure



Food Production Animal (page 2 of 2)

10%	21%	6 7%	9%	51%	Perform simple management of uterine prolapse
11%	19%	6%	9%	49%	6% Collect embryos
11%	18%	5 7% 6	%	56%	Evaluate uterine prolapse
13%	169	6 8%	9%	51%	Perform heifer breeding soundness exam
12%	16%	8%	9%	51%	Perform bull breeding soundness exam
11%	18%	6% 99	%	52%	5% Implant embryos
7%	14%	7%		66%	Perform surgical castration
6%			84%		Perform complex case management of rectal or vaginal prolapse
5%			86%		Perform complex case management of uterine prolapse
			86%		7% Perform LDA surgery
			93%		Perform c-section
0%	ech (Indire	ct) 📃 Vet	Tech (Direct)	AAHP (Indire	100% ect) AAHP (Direct) DVM Only N/A or Unsure



Companion Animal (page 1 of 2)

	39%		52%		5%	Remove calculus, soft deposits, plaque, and dental stains
	38%		49%		7%	Perform cystocentesis
29%	%	37%	6%	11%	12%	Collect semen
18%		47%	7%	25%		Perform single root extractions not requiring a gingival flap, sectioning of the tooth, or sectioning of the bone
290	%	34%	5% 7%	17%	8%	Evaluate semen morphology and motility
20%		42%	9%	21%		Perform ear flushing with pressure or suction
13%	40%	0	9%	33%		Suture gingiva
10%	39%		9% 36	%		Place intraosseous catheter
7%	31%	10%	48%			Perform feline urinary unblockage procedure
6%	30%	11%	48%			Perform feline castration, non-cryptorchid, on a shelter-owned animal
12%	23%	5% 9%	40%		11%	Perform artificial insemination
7%	23% 5%	12%	49%			Evaluate and perform nonsurgical management of canine / feline dystocia
18%	10%		64%			Perform surgical / multiroot extractions
17%	10%		67%			Perform feline castration, non-cryptorchid, on a privately-owned animal
14%	9%		66%			Place percutaneous endoscopic gastrotomy (PEG tube)
)% Vet Tech (·	Vet Tech (Direct)	AAHP (Indir		100%	AHP (Direct) 📕 DVM Only 📕 N/A or Unsure



Companion Animal (page 2 of 2)

