

Proposed Masters of Science Veterinary Professional Associate Program Department of Clinical Sciences, Colorado State University, Fort Collins, CO

The need for a new paraprofessional program: The primary problem the Veterinary Professional Associate (VPA) program aims to address is the inability of new graduate veterinarians to generate sufficient revenue to be able to service current levels of student debt. Unfortunately, lowering tuition costs for veterinary school is unlikely in today's political environment. Therefore, the only option to impact the debt to salary ratio is to provide the opportunity for veterinarians to generate more revenue. Recent data from the Bayer Study and the AVMA Pet Owner Survey suggests that the pet owning public is more price sensitive than originally thought and some believe this is a primary reason for the decline in the number of pets visiting a veterinarian. Increasing revenue by raising prices faster than the rate of inflation will not only exacerbate the decline in animals visiting veterinarians but will further limit access to veterinary care by economically challenged pet owners and livestock producers.

Increasing revenue by each veterinarian seeing more patients has limitations in the current practice model due to the limited number of exams or farm calls that can be performed in a day. Similar to the Dentist/Dental Hygienist and Physician/Physician's Assistant models, a VPA working under the umbrella of a veterinarian's license, would allow the veterinary health care team to see more patients thus generating more revenue without raising the cost of veterinary care. New communication technologies could potentially allow VPAs to provide services under the direct supervision of a veterinarian without necessitating the physical presence of the veterinarian. This would allow veterinarians that employ VPAs to extend veterinary services to areas not currently served including rural areas, animal shelters, etc. In addition, lowering the cost of veterinary care (or at least slowing the rate of increase) may help re-engage those pet owners and livestock producers who feel they can no longer afford veterinary care.

Another problem the VPA program aims to address is the difficulty in identifying individuals who have the aptitude and training to provide high level patient care and the ability to increase the efficiency of practicing veterinarians. This dramatically increases hiring costs to find qualified technicians and in addition, causes great frustration to many new veterinary technician graduates who want to contribute but were not provided sufficient education or training to do so.

Brief Description of Program: The goal of the VPA program is to build upon a student's undergraduate training in the life sciences to provide him/her with advanced knowledge and technical skills to be competitive for employment in the veterinary industry. The proposed VPA program, designed to be completed in 3-4 semesters, will accomplish this goal through:

1. A rigorous curriculum designed to provide cutting-edge knowledge in infectious, metabolic, neoplastic and degenerative disease.
2. A strong emphasis in coursework on topics that will have the greatest contributions in veterinary practice including anesthesia, clinical pathology, nutrition, practice management and radiology.

3. A curriculum that includes the development of expertise in both technical and communication skills.
4. Taking full advantage of the cutting-edge facilities and expertise available in CSU's Department of Clinical Sciences and Veterinary Teaching Hospital.
5. Due to the demanding nature of the proposed curriculum, only highly qualified students (as determined by performance in prerequisite classes taken during their Bachelor degree) will be selected for the VPA program.

Importantly, integration of the VPA program with CSU's DVM training program will allow the teaching of a team approach to the practice of veterinary medicine; something that cannot be accomplished by the vast majority of veterinary and veterinary technician training programs due to both the physical and organizational separation of these programs. An expected outcome from integrating the VPA and DVM programs is the training of veterinary paraprofessionals and veterinarians to work more efficiently and effectively together. This increased efficiency, combined with greater capabilities*of VPAs compared to veterinary technicians, will enhance the productivity of the veterinary healthcare team. Enhanced productivity will result in increased revenue without raising the cost of veterinary healthcare. The veterinary healthcare team's ability to increase productivity is the key to providing greater financial reward to both veterinarians and veterinary paraprofessional staff.

**Capabilities of VPAs will be limited by each state's veterinary practice act. Modification of a state's veterinary practice act to allow VPAs to perform additional procedures (under the direct supervision of a veterinarian) will further increase productivity of the veterinary healthcare team.*

Answers to CVMA's Questions about the VPA Program:

1. What primary question/problem is the program attempting to answer/solve?

The primary problem the VPA program aims to address is the inability of veterinarians to generate sufficient revenue to be able to service current levels of student debt. Similar to the Dentist/Dental Hygienist and Physician/Physician's Assistant models, a VPA working under the umbrella of a veterinarian's license, would allow the veterinary health care team to see more patients thus generating more revenue without raising the cost of veterinary care. Additionally, new communication technologies could potentially allow VPAs to provide services under the direct supervision of a veterinarian without necessitating the physical presence of the veterinarian. This would allow veterinarians that employ VPAs to extend veterinary services to areas not currently served (e.g., rural areas, animal shelters).

2. What do external stakeholders (e.g., practice owners, regulatory agencies) think of the proposed program?

We intend for all stakeholders to have an opportunity to provide input into the design of the program. We are only in the initial phases of gathering this input and view the CVMA's role as critical in helping us do so.

3. Since this is to be modeled after the human Physician Assistant (PA) degree, what have been the positive and negative outcomes in the human arena?

Although the training program and potential use of VPAs is modeled after the human PA degree, the rationales for creating these positions are different. Specifically, the PA program was developed in the mid-1960's to address a shortage of primary care physicians, a shortage which persists today. While this analogy may be applied to the "shortage" of livestock veterinarians practicing in rural areas, many believe that the lack of veterinarians in rural areas is the result of the inability of these areas to financially support a veterinarian. Therefore, the VPA program could help address this "shortage" by lowering the cost of providing veterinary services in rural areas.

However, for small animal practice in which there is no shortage of veterinarians, the rationale for the VPA is to increase the efficiency and lower the cost for the delivery of veterinary services. This will allow veterinarians to generate more revenue at a lower cost and thus be better able to service current levels of student debt.

Importantly, the 2012 AVMA Pet Owner Survey states that 19% of dogs and 45% of cats did not visit a veterinarian and of these, 29% of dog owners and 22% of cat owners stated that the primary reason was because they "couldn't afford" to go. Based on the previous pet owner survey, each of these numbers is trending in the negative direction (i.e., getting worse for the profession). For this reason, veterinarians must identify ways to see more patients at a lower cost rather than generate more revenue by raising prices. Similar to the Dentist/Dental Hygienist and Physician/Physician's Assistant models, a VPA working under the umbrella of a veterinarian's license, would allow the veterinary health care team to see more patients thus generating more revenue without raising the cost of veterinary care.

4. What knowledge and skills would graduates of this program have that would set them apart from graduates of existing veterinary technician or veterinary technology programs or from graduates of other four-year degree programs (e.g., biomedical sciences)?

Graduates with the proposed master's degree in Veterinary Science would be unique in a several ways. First, only students who have demonstrated an aptitude for learning in their bachelor's degree will be admitted to the program. This is in contrast to most community college technician training programs in which few selection criteria are applied to applicants. Second, by requiring specific pre-requisite courses either as part of or in addition to a bachelor's degree, students entering the VPA

program will already have a strong background in life sciences. Lastly, the increased aptitude and knowledge base will prepare students for a more rigorous curriculum with a strong emphasis on topics most useful in veterinary practice including anesthesia, clinical pathology, nutrition, practice management and radiology. The advanced coursework and training provided by the VPA program will enable these individuals to provide a higher level of care for patients and to facilitate increased productivity of veterinarians. As a result, we anticipate that these individuals will be more highly valued to a veterinary practice than CVT's with either associate's or bachelor's degrees.

5. How many students do you anticipate will enroll in this program once it is fully operational?

We anticipate initially enrolling approximately 20 students and then increasing the class size based both on the number of qualified applicants applying to the program and the demand for VPA graduates. The maximum number that could be accommodated with existing facilities at CSU would be approximately 120 students each year.

6. What procedures would these graduates be qualified to do that veterinary technicians cannot do now?

Since each state's veterinary practice act defines the limits of what non-veterinarians can do, graduates from the proposed VPA program would be restricted to the same tasks currently done by veterinary technicians. In fact, we anticipate that VPA program will be accredited by the CVTEA so that graduates could sit for the CVT credentialing examination. Expanding the role of VPAs would require changing the veterinary practice act (see question #7).

7. Would the Colorado Veterinary Practice Act need to be modified in order to allow these graduates to function to their full potential? If yes, what specific changes to the practice act would be required?

Modification of a state's veterinary practice act would be required for VPAs to do tasks other than those currently done by CVTs. Modification of the veterinary practice act would be a long-term effort with an uncertain outcome. Therefore, the VPA program would not be "sold" to prospective students based on potential expanded capabilities. However, assuming the practice act was to be modified, the "VPA practice act" could resemble that of Physician Assistants where VPAs could only "practice" under the supervision of a veterinarian. As such, the veterinarian would have the ultimate say in the specific tasks done by the VPA (i.e., only those tasks that the veterinarian was willing to assume responsibility for the VPA performing).

8. Could these graduates perform routine procedures under indirect supervision (veterinarian not on the premises) in areas with no existing veterinary service (e.g., rural areas, animal shelters)?

As discussed above (see question #1), new communication technologies could potentially allow VPAs to provide services under the “direct” supervision of a veterinarian without necessitating the physical presence of the veterinarian. Importantly, this could only occur after modification of the veterinary practice act and as also mentioned above, VPAs would be limited to procedures that the veterinarian was willing to assume responsibility for the VPA performing.

9. Will these graduates be insured for professional liability?

If the “VPA practice act” resembled that of Physician Assistants where VPAs could only practice under a licensed veterinarian and the veterinarian must authorize the specific tasks done by the VPA (i.e., only those tasks that he/she was willing to assume responsibility for the VPA performing), then the VPA could operate under the veterinarian’s professional liability policy. This would be similar to how CVTs are currently covered under a veterinarian’s professional liability insurance.

10. How would graduates from this program affect the job market for veterinary technicians?

Currently there are 231 AVMA accredited veterinary technician training programs in the U.S. Therefore, we would not expect the limited number of VPA graduates proposed to impact the job market for veterinary technicians. This impact would only change slightly if the majority of other veterinary schools also started VPA programs, which is unlikely.

11. What salary range is realistic for graduates of this program?

We are currently attempting to determine the potential financial impact of VPAs which in turn would be used to predict potential salaries. However, until such data is available we estimate VPA salaries to be higher than CVTs but lower than 1st year graduate DVMs.

12. What is the anticipated cost to obtain a paraprofessional degree? Given the anticipated starting salary, can these paraprofessionals expect a fair return on their educational investment and be able to make a living while servicing their educational debt?

The proposed VPA master’s degree would be obtained in 3-4 semesters. While the tuition rate for the VPA program has not been determined, CSU’s graduate student tuition rate is currently approximately \$6,300 per semester. At this rate, the tuition cost for the entire program would be approximately \$19-25,000; resulting in a significantly lower debt to starting salary ratio than graduating DVMs (but this is the problem we are hoping the VPA program will help solve).

13. Will all these graduates be confined to practice in Colorado only or will they be able to use their degree in other states?

As discussed above, modification of each state's veterinary practice act would be required for VPAs to do tasks other than those currently done by CVTs. Therefore, it would be up to each state to determine what more (if anything) VPAs would be allowed to do.

14. How would these paraprofessionals affect job prospects for graduating veterinarians?

Theoretically, over the long term VPAs could decrease the need for a practice to hire an additional veterinarian since the existing veterinarians are now more productive. However, if the prediction by Dr. Dicks regarding the shrinking pool of qualified veterinary applicants (see question #12) comes true and persists, then VPAs could help fill the void.

15. If more students enroll in the VPA program, would CVMBS decrease the size of the veterinary student classes?

Regarding the class size for DVM programs, this will more likely be determined by market forces* rather than the existence or size of the VPA program.

*At the 2014 AVMA Economic Summit, Dr. Michael Dicks, Director of the AVMA Veterinary Economics Division, stated that the number of qualified DVM applicants and the number of available seats is currently at equilibrium (i.e., there is approximately 1 qualified applicant for every available seat). At this conference he also predicted that the number of qualified applicants will decline within the next 5 years resulting in the closing of the equivalent of one veterinary school.

16. What will this do to the quality of PVM graduates? Will we see a shift of qualified students away from the PVM Program to follow this career that has a decreased debt load and miss out on some of the most qualified that would contribute to the profession?

The VPA program has the potential to increase the quality of our DVM training program by providing the opportunity to train both DVMs and paraprofessionals to function as a veterinary healthcare team. Currently, the physical separation of DVM and paraprofessional training programs results in tremendous inefficiencies when these separately trained individuals are thrown together and asked to perform as a team. Regarding the second part of this question, some believe we are already losing qualified individuals to the profession due to the high debt to salary ratio (helping to solve this problem is the primary goal of the VPA program).

17. Recent graduates are struggling to get practical hands-on experiences in school now, how will the training of these new paraprofessional students work in concert with the training of practical skills to veterinarians?

As currently proposed, there should be little to no impact on clinical rotations for DVM students since the VPA program schedule will be opposite of the schedule for the 3rd year DVM students (i.e., VPA students will have lectures in the morning and clinical rotations in the afternoon whereas 3rd year DVM students have clinical rotations in the morning and lectures in the afternoons) during the fall and spring semesters. Third year DVM students are not present during summer semester when VPA students will finish their clinical rotations.

18. The first year or so for new graduate veterinarian is spent practicing and refining basic skills and getting a feel for what is "normal, helping prepare the graduate to better recognize abnormal health conditions and perform more advanced surgeries and procedures. Where will veterinary graduates get this practical experience if paraprofessionals are used to handle "routine" procedures?

One could envision practicing VPAs being great mentors for newly graduated DVMs, thereby lowering the cost of getting new DVM graduates up to speed.

19. Much of routine rural practice is in the realm of regulatory work. Would federal and state agencies (Colorado as well as other states) recognize or approve procedures performed by paraprofessionals (e.g. TB tests, Bangs tests/vaccinations, Coggins tests, health certificates, Trich tests)?

It remains to be determined whether federal and state agencies would recognize procedures performed by paraprofessionals (under the supervision of a veterinarian). This might only occur if/when the number of rural veterinarians reaches a critically low level and there is no other mechanism by which to complete these procedures.

20. In many rural areas, livestock producers solve the problem of routine work (e.g. pregnancy checking, c-sections) by training their employees to do such work, how will this impact the ability of VPAs to work in rural areas?

Transferring the routine work from veterinarians to lay staff employed by livestock producers was a financial decision by producers. The VPA program has the potential to lower the cost of veterinary care in these areas and may allow the profession to regain "ownership" of some of these procedures.

21. If an animal science student desires, they can graduate with skills competent to: detect pregnancy by palpation and ultrasound in cattle and other species, assist in parturition with manual labor, and artificially inseminate cattle and other species. Is it possible for these two programs to collaborate?

The VPA proposal is to develop more highly trained paraprofessionals to assist veterinarians. To the extent that animal science graduates also perform this function there would be overlap. There has been some discussion about "tracking" within the VPA program that might allow for collaboration with the Department of Animal Sciences. However, this would only be developed after a decision to move forward with the VPA program has been made.