

## **Pet Healthcare in the US: Are There Enough Veterinary Nurses/Technicians? Is There Adequate Training Capacity?**

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### **Background**

Recent studies have identified an existing shortage of veterinarians in the U.S. pet healthcare market – a shortage that stands to worsen substantially as the need for companion animal (CA) veterinary services continues to grow.<sup>1</sup> Although veterinary medical student enrollments are expanding across AAAP member institutions, it is not likely that this increased capacity will be sufficient to provide adequate access to veterinary services for U.S. pet owners over the next 10 years. An intense focus on the healthcare team will also be vital to achieve more complete and robust contributions from veterinary nurses/technicians<sup>a</sup> across the full scope of their education, training, and capabilities, thereby extending the effective reach of those veterinarians providing services for companion animals.

From this perspective, however, it also becomes critical to assess the number of veterinary nurses/technicians available in the U.S. pet healthcare market. In addition, the educational capacity for veterinary nurses/technicians warrants review, even though over 200 accredited programs exist in the U.S.<sup>2</sup>

### **So, how many veterinary nurses/technicians work in U.S. companion animal practices?**

Although not reported directly, data provided by AVMA allow estimation of the number of individuals with the title veterinary nurses/technician working in U.S. companion animal (CA) practices. In 2019, it was reported that approximately 2.0 FTE individuals with the title veterinary nurses/technician were employed in this sector for every 1.0 FTE veterinarian (2.2:1 in CA exclusive and 1.9:1 in CA predominant practices).<sup>3</sup> Considering the same study reported about 59,000 FTE veterinarians in CA practice leads to the estimate that **approximately 118,000 individuals with the title veterinary nurses/technicians worked in the U.S. pet healthcare market during 2019.**

Unfortunately, it is not possible to know how many of these individuals are actually credentialed veterinary nurses/technicians.<sup>b</sup> AVMA reports that the ratio of non-credentialed-to-credentialed veterinary nurses/technicians has been about 2:1,<sup>4</sup> suggesting that about 79,000 of the estimated 118,000 professionals working as veterinary nurses/technicians in U.S. CA practices in 2019 were not credentialed.

It is likely that many of these individuals have little or no formal education or training related to veterinary nursing/technology and have been informally trained on-the-job in a practice setting, perhaps with the inclusion of continuing education seminars or courses, and assigned the title based on their roles and responsibilities. However, it is also likely that many of the reported non-credentialed nurses/technicians actually may have completed all or part of an accredited veterinary nurse/technology educational program but they either:

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<sup>a</sup> Launched in 2017, the Veterinary Nurse Initiative (VNI) seeks to unite the veterinary technician profession under a single veterinary nurse title, along with developing standardized credentialing requirements and a defined scope of practice. Although adoption of the veterinary nurse title is expanding, it has not yet gained universal acceptance. Consequently, the term veterinary nurse/technician is used in this report.

<sup>b</sup> The current terminology recognized by decree of both NAVTA and the AVMA for “credentialed veterinary technician” includes LVT, RVT, and CVT, depending on the technician’s state of residence. As mentioned previously, however, the VNI is working to standardize credentialing requirements.

1. Have not fully completed the training due to insufficient time or other constraints, or
2. Work in a state whose regulations do not require credentials (currently 11 states in total – only voluntary credentialing is presently available in these states)<sup>5</sup>, and they have not pursued their state's voluntary credential.

### **Are there enough veterinary nurses/technicians working in U.S. companion animal practices?**

Without question, many non-credentialed individuals working with the title veterinary nurse/technician are extremely capable and perform very well at their assigned roles. However, the merits of formal education in veterinary nursing/technology are increasingly being recognized as invaluable in establishing a consistent, predictable baseline of knowledge and skills that is well understood, accepted, and mobile across the industry. In a sense, this growing, robust understanding of the value of well-structured, formal education and credentials for veterinary nurses/technicians is overcoming the once common notion that on-the-job-training can routinely be just as effective and efficient. In this context, it is fair to assume that one of the primary reasons for the existence of such a high proportion of veterinary nurses/technicians being non-credentialed is due to a key shortage of credentialed professionals available in the labor market. Indeed, anecdotal evidence suggests that many employers would prefer to hire credentialed professionals, but the option simply isn't available due to limited availability.

Speculating on how many of those 79,000 individuals reported as non-credentialed actually fit this model would be both futile and potentially divisive. Regardless, it is safe to say that **there exists an effective shortage of thousands of credentialed veterinary nurses/technicians in the U.S. today, which amounts to a substantial proportion of the entire veterinary nurse/technician workforce in the U.S. pet healthcare market.**

### **What about the idea of having more veterinary nurses/technicians per veterinarian?**

Because of the existing and projected shortage of veterinarians, it has been suggested that increasing the number of veterinary nurses/technicians per veterinarian is a reasonable approach to soften the impacts of the shortage and enhance access to care.<sup>1</sup> To be effective, however, this approach will require more complete development of the roles and contributions of veterinary nurses/technicians, and a more thorough professional engagement of the entire healthcare team. As a result, current limits on career advancement, career satisfaction, and compensation for veterinary nurses/technicians that have historically been the root of significant retention issues will start to be resolved. Not only will access to care be expanded and improved, but patient outcomes, client satisfaction, and the overall wellbeing and productivity of the veterinary medical team will be enhanced.

Research results from 2018 indicate that, on average, the positive contribution to practice productivity/revenue of one additional veterinary nurse/technician is approximately 18.3%.<sup>6</sup> This suggests that, with all else being equal, having one more veterinary nurse/technician was associated with 18.3% higher revenue for an average-sized practice.<sup>c</sup> In fact, the research indicated that CA practice productivity/revenue was actually maximized at a ratio of 4.0 veterinary nurses/technicians per FTE veterinarian. With the current ratio standing at about 2.0, **maximizing CA practice productivity/revenue would require doubling the number of credentialed veterinary nurses/technicians in the U.S. pet healthcare market.**

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<sup>c</sup> The size of the average practice in this study was 2.4 FTE DVMs.<sup>3,8</sup>

If a more conservative goal of 3.0 veterinary nurses/technicians per FTE veterinarian was to be adopted, it would still require an increase of about 59,000 appropriately educated and credentialed professionals.

### **Is the capacity to educate veterinary nurses/technicians in the U.S. adequate?**

In the face of such an immediate and potentially overwhelming shortage, it is reasonable to wonder about the capacity of the U.S. educational system to deliver this number of graduates to the market. Coming from the aforementioned 200+ accredited programs,<sup>2</sup> the annual average number of individuals taking the Veterinary Technician National Exam (VTNE) over the past 6 years has been 7,458.<sup>7</sup> Considering that recent National Association of Veterinary Technicians in America (NAVTA) survey results indicate about 71.5% of veterinary nurses/technicians are employed in CA practice,<sup>8</sup> about 5,332 VTNE examinees each year are likely heading for CA careers. Even if the pass rate on the VTNE was 100%, **it would require 11.1 years' worth of VTNE examinees just to accommodate the current estimated need for an additional 59,000 credentialed veterinary nurses/technicians.**

If the VTNE pass rate was 80%, which is probably more realistic, it would require 13.8 years. Of course, this scenario doesn't even consider the possibility of growth in the field of veterinary nursing/technology. Obviously, this analysis suggests that the U.S. educational capacity for veterinary nurses/technicians presents a critical bottleneck for access to veterinary services in the U.S. pet healthcare market today.

### **How about the future? Isn't a substantial increase in U.S./spending on pet healthcare services expected over the next 10 years?**

The remarkable magnitude of the current shortage of veterinary nurses/technicians is only compounded by existing forecasts of expected growth in the market for CA veterinary services. Data presented at the 2019 AVMA Economic Summit projected an increase in spending on pet healthcare services of 33% over the next 10 years.<sup>6</sup> If this growth is combined with a modest goal of increasing the ratio of veterinary nurses/technicians per FTE veterinarian to 3.0 (and considering anticipated retirements based on NAVTA age distribution data<sup>8</sup>), an astounding estimate of 132,885 additional credentialed veterinary nurses/technicians will be needed by 2030. Considering that this would require 24.9 years' worth of VTNE examinees at the current educational capacity (at 100% pass rate – or 31.2 years' worth at 80%), the severe constraints presented by the existing U.S. educational system become even more obvious.

### **So, what options do we have?**

Of course, the most obvious response to this situation is probably to think about ways to increase the capacity of the U.S. educational system in relation to veterinary nurses/technicians through either an increase in the number of accredited programs or an increase in enrollment for existing accredited programs (or both). Although this expansion will be a critical part of the solution, at least four other factors will be vital as well.

- Presentations at the 2018 Banfield Pet Healthcare Industry Summit spotlighted the disturbing fact that veterinary practices, by some estimates, on average use only about 30% of the skills and competencies for which credentialed veterinary nurses/technicians have been educated.<sup>9</sup> Lack of full professional engagement limits career advancement, career satisfaction, and compensation for veterinary nurses/technicians, resulting in significant recruitment and retention issues because these highly valuable team members commonly leave their profession early as a consequence. A considerable amount of attention must continue to focus on the roles, capabilities, and responsibilities of veterinary nurses/technicians in veterinary medical

practice toward a more complete utilization of these highly valuable professionals. Increasing job satisfaction and retention would effectively decrease the shortages estimated above.

- Two distinct options exist for veterinary nurse/technician education programs: 2-yr (associate degree – A.S.) and 4-yr (bachelor’s degree – B.S.).<sup>10</sup> A clear differentiation in the skills, knowledge, and competencies inherent in veterinary nurses/technicians who graduate from accredited A.S. degree vs. B.S. degree programs will be critical going forward. Such differentiation would foster development and adoption of associated new career pathways and compensation structures.
- Similarly, expanded use of Veterinary Technician Specialists (VTSs) will be an excellent option to improve access to care where caseloads permit. Clearly, one size does not fit all when considering roles, responsibilities, and potential contributions of veterinary nurses/technicians. Through their advanced technical training, VTSs can markedly enhance both efficiency and effectiveness of the healthcare team, and – again – somewhat mitigate the effects of the shortages discussed above.
- Finally, recent studies have identified a substantial, broad-based interest in a veterinarian “extender” with advanced (master’s degree – M.S.) training in veterinary clinical care.<sup>11</sup> If the core competencies of this new mid-level professional featured leadership-level proficiencies in advanced case management, care coordination, and healthcare systems, the overall performance and contribution of the entire healthcare team might be expected to improve. To date, educational programs of neither veterinarians nor veterinary nurses/technicians have effectively emphasized these particular competencies in a leadership capacity. Filling this leadership vacuum, again in the appropriate context, could markedly enhance the function of the healthcare team and help provide innovative solutions to the workforce challenges presented. Further, by providing new options for career advancement, the opportunity to obtain an extender degree would almost certainly enhance career satisfaction and compensation for the veterinary nurses/technicians who choose that pathway. Importantly, the intrinsic rewards that would accompany a specialized skill set and an improved ability to provide financial support for these individuals’ families, together with an overall improvement in the function of the entire healthcare team, would be expected to markedly improve retention across this vital profession.

#### **Are there potential limitations of this analysis?**

Of course, the foregoing analysis and associated recommendations are founded on a number of key assumptions. Several of these warrant special consideration.

- Estimates generated from US Bureau of Labor Statistics (BLS) data suggest fewer veterinary nurses/technicians are employed today in the U.S. pet healthcare market than those estimates based on AVMA data. In fact, using the BLS estimate of 112,900 as the total number of U.S. veterinary nurses/technicians in 2019,<sup>12</sup> along with the NAVTA survey results indicating that about 71.5% of veterinary nurses/technicians are employed in CA practice,<sup>8</sup> results in an estimate of about 81,000 veterinary nurses/technicians in CA practice during 2019...which is only about 68.6% of the total estimated using AVMA data. Accordingly, going through similar calculations as above with regard to the ratio of credentialed to non-credentialed individuals results in an estimate of 54,000 non-credentialed veterinary nurses/technicians currently. Using these lower BLS estimates still reveals that an astounding shortage of credentialed professionals exists.
- The BLS projections for veterinary nurse/technician employment growth over the next 10 years are only 16.2%<sup>12</sup> – substantially lower than the 33% depicted by AVMA data. As with the analysis above, if this BLS growth projection is combined with a modest goal of increasing the ratio of veterinary nurses/technicians per FTE veterinarian to 3.0 (and again considering anticipated

retirements based on NAVTA age distribution data<sup>8</sup>), an estimate of about 103,000 additional credentialed veterinary nurses/technicians would still be needed by 2030 (19.3 years' worth of VTNE examinees at the current educational capacity at 100% pass rate – or 24.1 years' worth at 80%). Even with these more conservative estimates, the bottleneck in U.S. educational capacity in this analysis is only marginally less worrisome.

- Finally, and perhaps most importantly, all of this analysis tends to imply that increased worker numbers and/or improved training can be sufficient to adequately strengthen the pet healthcare workforce. However, it is a well-known fact that veterinary medicine is one of the least diverse professions, including consideration of both veterinarians and veterinary technicians.<sup>13</sup> To be truly effective going forward, the pet healthcare workforce must enhance diversity to become more representative of the society it serves.

### **So, what comes next?**

Even using the BLS estimates, the shortage of credentialed veterinary nurses/technicians and the limitations in U.S. training capacity are remarkable. To enhance, or even maintain, access to veterinary services in the U.S. pet healthcare market will require bold and immediate actions.

- First, it will be critical to continue working on more complete development and understanding of the roles and contributions of veterinary nurses/technicians in the U.S. pet healthcare market. Rigorous exploration of issues such as core competencies, job responsibilities, educational options and models, compensation, credentialing, and career pathways/longevity demand immediate attention. In turn, successful team-based healthcare delivery systems need to be identified, created, modeled, and progressively implemented. Both AVMA and AAVMC currently have associated initiatives underway, and a great deal of importance hinges on their respective successes.
- At the same time, educational capacity for U.S. veterinary nurses/technicians needs to be substantially expanded. Even using conservative estimates, the analysis indicates that to achieve the desired growth over the next 10 years or so will require approximately twice the number of NVTE examinees annually as currently exist – and this is without considering the shortage of veterinary nurses/technicians that currently exists. To achieve this degree of growth will, of course, require that puzzles related to compensation, credentialing, and career pathways/longevity be effectively solved. The entire spectrum of educational opportunities for veterinary nurses/technicians needs to be fully embraced and leveraged, including A.S. degrees, B.S. degrees, VTS training and certification, and even a new M.S. “extender” degree. However, there has never been a time when innovation in education for veterinary professionals has been more vital. Effective distance education models are needed to accommodate potential students who are currently employed. These models should reach two distinct groups: 1) those students who have started, but not completed, an existing program, and 2) those who have yet to begin, but are ready to get going. Novel educational pathways with multiple and flexible entry and exit points will also be key. And creative partnerships between colleges/schools of veterinary medicine and veterinary nursing/technology programs will be essential.
- Finally, expanding the number of veterinary nurses/technicians in the U.S. pet healthcare market presents a crucial opportunity to accelerate diversification of veterinary medicine. Consider the following:
  - Barriers to entry are relatively low – in many cases, admission to veterinary nurse/technician programs is possible straight out of high school.
  - Access is generally widely available, with over 200 accredited programs in the U.S. currently – many at local or community colleges, and an increasing number are available online.<sup>2</sup>

- Educational turnaround can be relatively short. Completion of most veterinary nurse/technician A.S. programs is possible in only two years, with B.S. programs generally only requiring four.

An intentional, progressive emphasis on diversity, equity, and inclusion will be vital.

To effectively meet the growing need for pet healthcare in the U.S. – to provide U.S. pet owners with adequate access to companion animal veterinary services – it will be critical to adopt an intense focus on the healthcare team. Not only will access to care be expanded and improved as a result, but patient outcomes, client satisfaction, and the overall career satisfaction, wellbeing, and productivity of the veterinary medical team will be enhanced.

It's time to get started.

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