

# The importance of veterinary career awareness

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Veterinary medicine has always been a profession built on adaptation and expansion. Early veterinarians in the United States were horse doctors caring for the thousands of animals used for transportation, military work, and other tasks.<sup>1</sup> With the arrival of the automobile and assembly line, horses were quickly replaced with cars, resulting in a dramatic decrease in the US horse population. But veterinarians adapted, expanding their role beyond that of horse doctor. Many veterinarians moved into the public sector, serving in a regulatory capacity at the state or federal level. Others transitioned into companion animal practice, expanding the profession's reach beyond its agricultural and rural past.

Fast forward nearly 100 years, and the profession finds itself at another turning point. Veterinarians will always be animal doctors, but veterinary medicine is also the only health profession that includes public health in its oath, meaning that veterinarians are involved with not just animal health, but human health and much more. The lines between human and animal medicine intersect, and movements such as Zoobiquity highlight the importance of comparative medicine.<sup>2</sup> If, at the beginning of the 20th century, the profession had held onto the concept that veterinarians were only meant to supply health care to horses, the profession would have been notable, but historic. By instead adapting, the profession has expanded its role in and importance to society.

Today, the veterinary profession has yet another opportunity to adapt and expand, thereby providing opportunities for veterinarians well beyond clinical practice. Of course, careers outside of clinical practice are not new, but they remain woefully underemphasized inside and outside the profession, even given the recent popular interest in comparative medicine. For veterinary medicine to reach its fullest potential in contemporary society, the profession's mindset will need to expand once again. Although the present article cannot provide information on all career options outside clinical practice currently or conceivably available to veterinarians, such expansion is necessary and can provide many benefits to veterinarians, the veterinary profession, and society.

## Careers Outside of Clinical Practice

Although the AVMA's Model Veterinary Practice Act<sup>3</sup> defines a veterinarian as "a person who has received a professional veterinary medical degree from a college of veterinary medicine," many state veterinary practice acts define veterinarians more narrowly as individuals licensed to practice veterinary medicine within a set jurisdiction. For example, in Illinois,<sup>4</sup> the title of veterinarian means "a person who is validly and currently licensed to practice veterinary medicine in this State."

The veterinary profession is not alone in defining its members on the basis of their ability to engage in clinical practice. The same is true for physicians and dentists.<sup>5,6</sup> Veterinary medicine is, however, the only profession that combines human and animal health, and many veterinarians have careers outside of clinical practice. It was, for example, a veterinarian who first discovered West Nile virus in the United States, and veterinarians were directly involved in responding to the 2014 Ebola epidemic in West Africa.<sup>7,8</sup> Still, many within the profession are unaware of the diverse career paths available to veterinarians.

Having an awareness of the wide variety of careers available can not only expand the potential employment opportunities for veterinarians but may also lead to careers offering a better work-life balance or greater financial security. For instance, according to the 2016 AVMA Report on Veterinary Compensation, median income for veterinarians working full time in private practice during 2014 was \$87,000, whereas median income for veterinarians working full time in public or corporate practice was \$99,700.

Enhanced career awareness can also lead to opportunities for student loan repayment assistance, such as the Veterinary Medicine Loan Repayment Program, which is available to veterinarians working in private practice in a government-designated shortage situation; the Public Service Loan Forgiveness Program, which provides repayment assistance for those working full time for 10 years with a qualifying public service employer; the Army Active Duty Health Professions Loan Repayment Program for those serving in the military; the Federal Faculty Loan Repay-

ment Program for those in academia; and other various state-funded loan repayment programs.<sup>9</sup>

Veterinarians who have moved from clinical practice to other career paths report that the transition has led to a better work-life balance, increased personal wellness, and greater professional fulfillment. Many nonclinical positions do not require weekend work, and although many require travel, the travel that is done allows for expanded networking opportunities. Prospects exist for obtaining additional postgraduate degrees or professional certifications with employer reimbursement. Because many employers of veterinarians in nonclinical settings are larger, they generally provide excellent benefits, such as accrued vacation time. Employers in the animal health, biomedical research, public health, and government sectors also generally encourage participation in professional associations.

One reason veterinarians and veterinary students frequently give for why they do not pursue career paths outside of clinical practice is a desire to remain in a single geographic area for all or most of their career. This desire for geographic stability can be strong, even among those who no longer find private practice fulfilling or who have determined that taking another career path is paramount to their career success. Geographic flexibility is required for a substantial number of careers outside of clinical practice, because many of these employers are located only in certain locations throughout the United States. Therefore, geographic inflexibility is one factor that can impede one's ability to pursue career opportunities outside of private practice.

## Enhancing Career Awareness

Discussions about veterinary careers outside of clinical practice have, for decades, used the terms “alternative” or “nontraditional” as descriptors for these career paths. Many veterinary meetings and meeting speakers have adopted these descriptors in programming track titles and presentations, as have various publications and websites that discuss veterinary careers. The use of such terms, however, implies that clinical practice is the de facto career choice for veterinarians and that these “alternative” and “nontraditional” career choices are not on par with clinical practice options or should only be considered after working in clinical practice for a requisite period of time.<sup>10</sup> In social media forums, veterinarians often admit to feeling conflicted when they find that they do not enjoy clinical practice because they have only ever equated being a veterinarian with being in clinical practice. This leads to feelings that if they don't want to remain in clinical practice, they must leave veterinary medicine altogether or that if they aren't in clinical practice, they aren't a “real” veterinarian. Undergraduate students considering veterinary medicine as a career may decide to pursue other professional degrees if clinical practice is the only veterinary career pathway provided to them, thus thwarting efforts by the Association of American Veterinary Medical Colleges and other organizations to increase the diversity of veterinary school applicants.

Use of the terms “alternative” and “nontraditional” is also antiquated, as thousands of veterinarians have entered these fields over the past 100 years. Laboratory animal medicine as a career choice emerged in 1915, and the American College of Laboratory Animal Medicine was founded in 1957.<sup>11</sup> More importantly, by continuing to use these terms, veterinarians put long-established and well-defined careers outside of clinical practice in a light that will never allow them to become mainstream or traditional, which is counterproductive for individual veterinarians and the profession as a whole. Furthermore, continued use of “alternative” and “nontraditional” may inadvertently perpetuate feelings of failure or inadequacy among veterinarians in those fields because they view their careers as not being traditional, standard, or normal. As a profession, we need to change the language used to describe nonclinical careers and embrace positive terms that focus on the breadth of opportunities that veterinary medicine presents.

One way to enhance career awareness is to envision the process of choosing a veterinary career as a 3-step process. During the career awareness stage, preveterinary and veterinary educators and counselors should focus on helping students (and veterinarians looking to change careers) build a portfolio of potential career options. Students should learn about the plethora of options available and should be provided information on what various veterinary careers could entail in terms of personal choices.

Once career seekers are aware of the options available to them, they can begin the process of selecting specific career options in which they are interested. It is important at this step that they be provided concrete information about how to find jobs, gain relevant skill sets, and understand what employers desire in applicants. Too many veterinarians, when talking about their careers outside of clinical practice, focus on how they “fell into” or “found themselves in” a position during a time when they weren't seeking a career change.<sup>12</sup> Vague guidance such as this may serve to increase awareness of career options, but fails to help students and veterinarians build definitive career pathways.

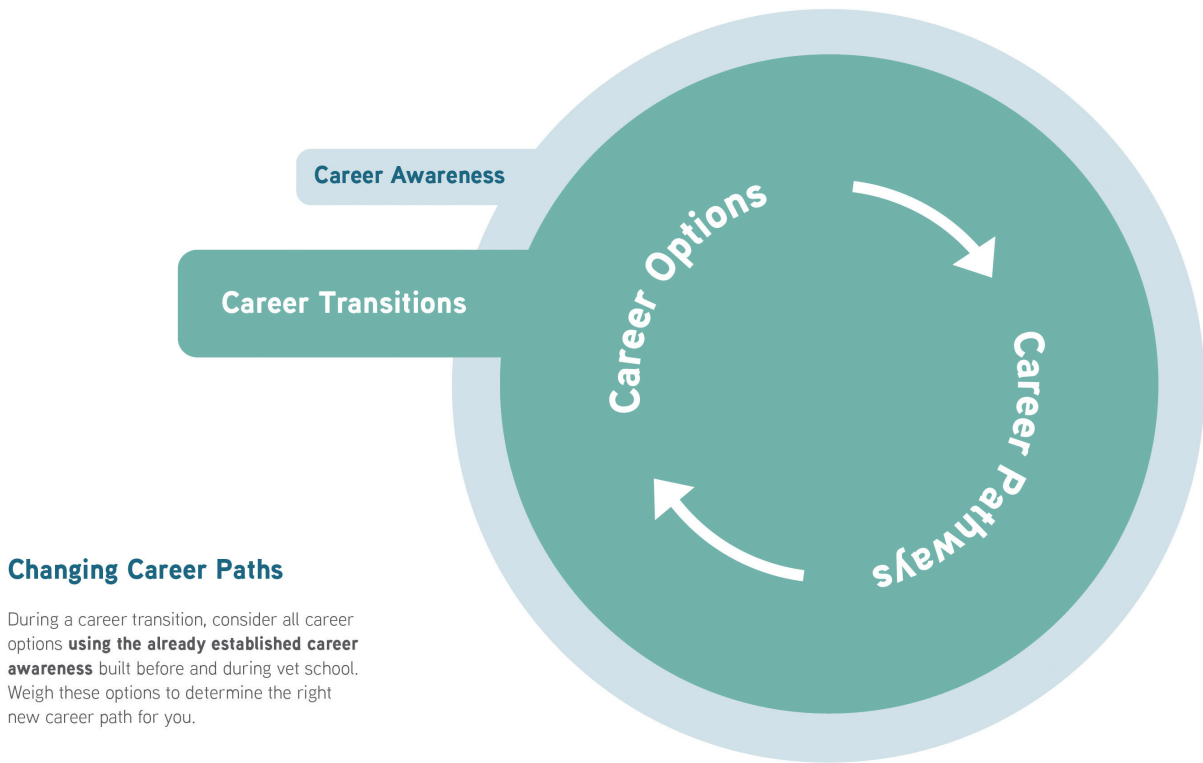
Importantly, the 3-step career selection process can be cyclical (**Figure 1**). This helps facilitate career transitions for veterinarians as they learn what they prefer in their work environment, seek new positions as a result of relocation, desire other career options that offer a higher salary or better benefits, or pursue ways to advance veterinary medicine in areas other than clinical practice. This model makes no assumptions as to a de facto career choice.

## Current Efforts

Efforts to enhance career awareness among veterinary students and veterinarians are currently disjointed. Preveterinary programs and veterinary colleges may not have a comprehensive plan for students to achieve career awareness as an outcome of their education. Many veterinary associations integrate sessions about career opportunities into their meet-

# Ideal State

Understanding options during a career transition



## Changing Career Paths

During a career transition, consider all career options **using the already established career awareness** built before and during vet school. Weigh these options to determine the right new career path for you.

**Figure 1**—Illustration of how the 3-step career selection process can be used in a cyclical manner to facilitate career transitions.

ing programming on the basis of a specific request or submission, rather than as a component of a strategic plan to help improve members' careers. Publications and websites listing career pathways are usually created as reference materials and generally do not include in-depth descriptions of the skills needed or provide information on how to find and apply for jobs in a particular field.

Starting in 2016, some efforts have been made by the AVMA and Association of American Veterinary Medical Colleges to provide career awareness education across the profession. With the Economics of Veterinary Medical Education Summit (ie, "Fix the Debt" summit) held at Michigan State University in April 2016, 10 working groups were formed with volunteers coming from all aspects of the profession to create solutions for the current debt issues facing recent veterinary college graduates. One of those 10 groups focused on career resources and awareness. Individual veterinarians and entities such as the AVMA's Early Career Development Committee, AVMA Veterinary Career Center, Student AVMA, and Veterinary Business Management Association are collaborating with the Fix the Debt Career Awareness Working Group to change the nature of career awareness outreach.<sup>15</sup> It is difficult to reach the approximately 15,000 veteri-

nary students and the many veterinarians looking for career advice when efforts are disjointed. The working group collaboration may serve as a template for future career awareness endeavors.

Veterinary associations with a membership base that is not employed in clinical practice, such as the American Association of Industry Veterinarians, American Society of Laboratory Animal Practitioners, National Association of Federal Veterinarians, Veterinary Hospital Managers Association, and others, have also embarked on career awareness campaigns, but these associations typically have limited outlets. At times, the campaigns have been inconsistent or based on transient economic factors, rather than a comprehensive goal of career awareness. Informal campaigns are seen on social media groups where veterinarians ask, with some frequency, what options are available to them outside of clinical practice.

A profession-wide, cohesive movement towards career awareness such that veterinarians will no longer need to ask what is available to them outside of practice will need to include all groups with a vested interest in recruiting more veterinarians into these positions. Without the consistent messaging and recruitment of new veterinarians, positions outside of clinical practice typically filled by veterinarians may

instead be filled by nonveterinarians, representing a tremendous loss for the profession. By having veterinarians become aware of other career options, the move from clinical practice to nonclinical practice will appear less daunting and more worthwhile and will not be accompanied by a self-generated stigma of no longer being a “real” veterinarian.

Nonanecdotal information in the peer-reviewed literature about careers outside of clinical practice is sparse. A smattering of commentary articles, personal stories, and anecdotes about careers in toxicological pathology, laboratory animal medicine, public health, government, and other fields in the United States and Britain have been published,<sup>14-23</sup> with most of these appearing in the journal *Veterinary Record* published by the British Veterinary Association. Unfortunately, the terms “alternative” and “nontraditional” are commonly used in these articles.

There are even fewer discussions of the full gamut of career options in books or veterinary workforce reports. The AVMA’s 2013 veterinary workforce study<sup>24</sup> provides an excellent overview of many career opportunities that can be found in industry, government, food security, and academia. However, data regarding available jobs and salaries were generally from 2007 through 2009, a period that predated the most recent economic downturn and the associated downward trends in employment and salaries for veterinarians and new graduates. Additionally, although the study indicates that veterinary medicine comprises many diverse careers, companion animal medicine is still viewed as traditional and the default career for students entering the veterinary profession.

In direct response to a survey of AVMA members expressing interest in career options, the AVMA Future Leaders Class of 2013–2014 created a career transition toolkit highlighting the many opportunities available to veterinarians outside of clinical practice, including a video series spotlighting veterinarians working in academia, nonprofit associations such as the AVMA, government, industry, laboratory animal medicine, research, and management.<sup>25,26</sup> An initial effort of the Fix the Debt Career Awareness Working Group was to create a condensed version of these videos<sup>27</sup> that could be shown to student audiences in an effort to raise awareness of the opportunities available to veterinarians.

## Implications for Preveterinary and Veterinary Students

A substitute for the current disjointed efforts to provide career awareness information would entail helping veterinary students gain as much career awareness as possible while they are still in veterinary college, whether through the core curriculum or from veterinary career advisors, externships, mentoring programs, conference attendance, or other venues. Such efforts should be incorporated at the preveterinary level as well.

## Preveterinary focus

Notably, the provision of limited career advice by preveterinary counselors and educators serves to restrict career exploration by students once they enter veterinary college, especially if those students do not avail themselves of extracurricular veterinary-focused activities while pursuing their undergraduate studies. For some students at the undergraduate level, a lack of information on career choices or options may encourage them to seek advanced education in other allied health disciplines, rather than veterinary medicine. Broadening the knowledge base of preveterinary and preprofessional counselors, therefore, represents an excellent strategy for expanding the diversity of the veterinary college applicant pool. As an example for other states, the North Carolina education system actively trains preprofessional advisory staff on undergraduate college campuses to better equip them to talk to students about career possibilities.

Many undergraduate students feel pressured to pursue a particular career pathway on the basis of family expectations, and those expectations can be particularly compelling for students receiving substantial financial support from their family. However, the relatively limited public view of careers within veterinary medicine, shaped almost entirely by interactions with veterinarians in clinical practice, can have an impact on family expectations. Thus, efforts to enhance career awareness should go beyond undergraduate students to also engage their families.

## Veterinary colleges

Importantly, the veterinary college culture itself impacts the career decisions that many students make. Veterinary colleges often seek board-certified veterinary specialists to deliver the didactic and clinical curriculum, and students may be influenced to follow the career paths of faculty members. For example, some students report being encouraged by a faculty member to complete an internship after graduation, seemingly because that is the path the faculty member pursued and felt it was beneficial. This type of influence is oftentimes referred to as the “hidden curriculum” in higher education and represents hidden pressures on student performance and outcomes.<sup>28</sup> Similarly, family pressures that existed in the preveterinary years can follow students once they begin veterinary college, and these pressures, combined with a strong desire to stay geographically close to family members, can serve to restrict students’ career options.

Ideally, once admitted to veterinary college, students should gain an awareness of what various careers in veterinary medicine look like and an appreciation of the breadth and scope of veterinarians’ impact on society. They should be provided the resources needed to effectively evaluate and investigate all of the career options available to them. This should include actively networking and building an experiential foundation to help them select a career pathway. Once a career pathway is selected, students



should continue to receive assistance in developing necessary skills and gaining relevant expertise. Similar career awareness plans can be established for veterinarians at all stages of their career.

In recent years, The Ohio State University College of Veterinary Medicine has moved toward this type of career awareness framework and has formally discontinued the use of the terms “alternative” and “nontraditional” when discussing career options with veterinary students. Additionally, the Association of American Veterinary Medical Colleges has developed an excellent example of how to reframe discussions on careers outside of clinical practice.<sup>29</sup>

## Conclusions

Veterinary medicine is a diverse profession that has always adapted to meet the needs of society. Although veterinarians will always be best known as health-care professionals working on animals in clinical settings, the veterinary medical curriculum is broad and provides graduates with a unique skill set ideal for bridging the gap between human and animal health and for serving a wide variety of roles within society. At a time when student educational debt continues to increase, veterinary medicine needs to explore all solutions. Encouraging veterinary students and preveterinary students to consider all options in veterinary medicine has the possibility of providing expanded career opportunities with higher salaries and a good quality of life, while also potentially helping diversify the veterinary college applicant pool. Many students entering veterinary college do so focused solely on companion animal practice. Providing opportunities for veterinarians to develop awareness of a wider variety of career options during their preveterinary and veterinary studies and throughout their careers may provide substantial benefits not only for individual veterinarians but also for the veterinary profession as a whole.

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