

Horses without Doctors: Why is the Equine Veterinarian Industry Facing a Shortage?

Adison Leo

College of Agriculture, Colorado State University

University Honors Program Thesis Fall 2024

Dr. Carleigh Fedorka, Dr. Christianne Magee

Abstract

It has been well documented that there is a shortage of practitioners entering the equine medicine workforce. Unfortunately, minimal research has gone into the causative agents for this shortage. Therefore, the objectives of this study were 1) to identify current concerns within the equine veterinary medicine workforce, and 2) isolate common perceptions of equine veterinary medicine within equine industry members who no longer desire to enter the workforce. To do so, 264 members of the equine industry were surveyed. These respondents could be separated into groups of 1) equine industry members (n=243) and 2) current equine practitioners (n=21). Additionally, equine industry members were further separated based on current interest in equine veterinary practice (1=very disinterested, 5=very interested). Of those responders, 197 (n=197) had lost interest in pursuing equine veterinary medicine, while 31 (n=31) maintained interest. When surveying equine veterinarians, the primary issues within their career were work-life balance (85%), mental health (70%), and debt-to-income ratio (65%). When surveying equine industry members on the perceived problems within equine veterinary medicine, the primary issues were debt-to-income ratio (66.7%), work-life balance (61.3%), and mental health (38.7%). Therefore, the top three concerns in both populations were similar, although the percentage of respondents indicating concern varied widely. When further assessing only respondents that had lost interest, the primary concerns were cost of education (61.1%), length of education (69.6%), income after graduation (49.2%), and feeling as though their grades are not suitable for acceptance (35.4%). In conclusion, it appears that the general equine industry populace is aware of the current problems within the career of equine veterinary medicine (see figure 2). As low income alongside poor mental health and a lack of work-life balance are the primary issues, these

aspects within equine veterinary medicine need to be addressed in order to improve the equine veterinary medicine shortage.

Introduction

A significant problem is being faced within the equine veterinarian industry. While the equine industry continues to expand, the number of veterinarians focusing on equine medicine is decreasing. According to the American Association of Equine Practitioners (AAEP), 50% of equine veterinarians transition into small animal practice or leave the industry within five years after graduating from their Doctor of Veterinary Medicine program [1]. Since 2008, the equine veterinarian industry has been decreasing with professionals retiring and not being replaced with newly graduated ones [2]. This decline is met with an industry that is continuously growing. The American Horse Councils (AHC) Economic Impact study found that the equine industry contributed \$177 billion to the United States Economy in 2023, \$55 billion more than the \$122 billion contributed in 2017 [3]. Although the equine industry's economic impact is increasing, horse ownership has decreased from 0.7% in 2016 to 0.5% in 2022 [14]. The contradictory data represents that the industry is potentially shifting from an interest in horse ownership due to the cost and pursuing other options such as leasing horses from owners. The amount of horse owners decreasing could be impacting equine club involvement of younger generations and recreation use across all generations.

It has been found that the enrollment in both the 4-H Youth Development Program and the Pony Club is decreasing [9, 12]. The 4-H Horse Project strives to teach youth about horses, including care, management, and competition of horses. After the United States Department of Agriculture announced a yearly decrease in 4-H from 2010-2014, a multi-state study was conducted to identify reasons causing this [12]. Through survey responses, this study found a

disinterest of youths enrolled in this program. This disinterest was due to overall experience in the 4-H programs such as feeling unwelcomed by other youth in their clubs, and this was significantly related to lack of re-enrollment. Also identified were structural reasons including communication from the program, organization of the program, and personal reasons such as finances and time restraints. Another study sent out a questionnaire to active 4-H program members in Georgia to assess their desire to reenroll [9]. The questionnaire found that 57% of fifth graders in 2006 would not reenroll for the next year. It identified that the greatest reason for lack of re-enrollment was conflict with school activities, while other reasons included not liking the activities at meetings and not feeling welcome. Alongside decreasing 4-H enrollment, Pony Club memberships in the United Kingdom are decreasing at a rate of 1,000 memberships a year over the past decade [5]. This was also noted in Canada, where enrollment numbers reduced from 5,800 in 2010 to 2,000 in 2022 [16]. The Pony Club serves individuals aged from 6 to 25 years of age that are interested in understanding riding, management, and education of horses or ponies [16]. Seeing a decrease in involvement of these equine educational organizations targeted at young children could be contributing to the decrease in number of equine veterinarians as less people are sparking an interest at a young age.

The decrease in equine specific endeavors expands beyond youth programs as two of the top equine science programs offered by four-year universities have been experiencing decreased enrollment. The University of Kentucky equine science and management program enrollment decreased from 325 in 2019-2020 to 292 in 2020-2021 and further to 271 in 2021-2022. The enrollment at Colorado State University decreased from 395 in 2016 to 264 in 2023. Fluctuations are seen in the years between, but the overall trend is admissions falling [Unpublished data]. Lower admissions and retainment in equine science programs may also contribute to the shortage

of equine vets. Although an equine science major is not the only path to pursuing veterinary education, this major has the potential to capture individuals' dedication to serving equines within veterinarian medicine. With less people being admitted into these programs the potential to narrow future veterinarian student's interest into the equine field is diminishing.

In an attempt to collect further data surrounding reasons causing the decreasing number of equine veterinarians a survey was conducted that collected 264 responses from individuals, ranging from horse owners to equine veterinarians (see figure 1 and 2 below). To introduce the survey, we first asked about the respondent's awareness of the equine veterinarian shortage (see figure 2), their interest level in pursuing equine medicine and their past and present involvement in the industry. After obtaining demographic information, the main research questions in the survey were:

- If your interest in pursuing equine veterinary medicine decreased, what was the main reason?
- If you are still interested in veterinary medicine, what is your main concern for your future?

The top responses for both questions were work-life balance, mental health, and the ratio between income and debt. Family planning and lack of diversity and inclusion were also answer choices to both questions, but were found to be lesser concerns. This may be due to not obtaining responses from a well diverse group of respondents, but unfortunately could not be determined within the confines of this survey. Survey results were compared with previously published literature to aid determining the validity of these responses.

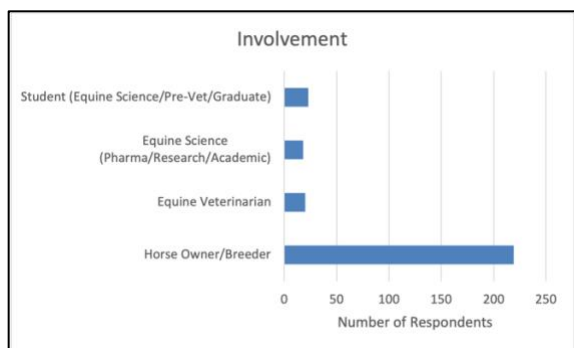


Figure 1: Respondents are organized into their respective equine industry involvement groups. Respondents could select multiple answer choices.

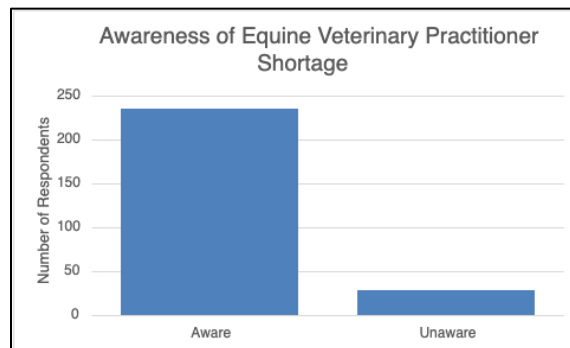


Figure 2: Of the 264 respondents, 235 were aware of the shortage while only 28 were not. This represents that this is a widely recognized issue in the industry.

Discussion

Work-life balance has been identified as a leading concern surrounding the equine veterinarian industry. From a study done with equine veterinarians in the Netherlands, 87% of the participants interviewed stated that their job has negatively impacted their private life and 30% included that separation between work and private life was found to be difficult [13]. The lack of specialty equine urgent care facilities is a huge contributor to this lack of separation due to the potential for equine veterinarians being tasked with afterhours caseload [17]. Being on call creates the expectation for general practice equine veterinarians to be available to clients at all times [17]. A higher demand for being on-call as a large animal veterinarian led to a reluctance to pursue a career in the equine sector, Canadian veterinarians cited in one study [8]. This also includes the inability to get holiday or extended periods of time off for vacations. Not only is the equine practitioner faced with the challenge of their personal time being interrupted after finishing but also being overworked during the workday [10]. Due to not having enough time per patient and seeing too many patients in one day, there is a lack of time and resources for both necessary aspects of life such as lunch, but also to initiate client communication [10]. In the United Kingdom, veterinarians reported an average work time of 60 hours per week, 20 hours over the typical 40 hours [8]. The demand for working long hours, being on call and excessive

workload cause professionals to feel workplace attrition [8]. This is especially prevalent for younger graduates, as new research suggests they have higher expectations for work-life balance [10]. This correlates to the possibility of younger graduates choosing to leave the profession early on – ultimately hurting the repopulation of new veterinarians to replace those who are retiring. Among the respondents to the survey that are actively working as equine practitioners, work-life balance was the largest problem experienced as seen in figure 3 below.

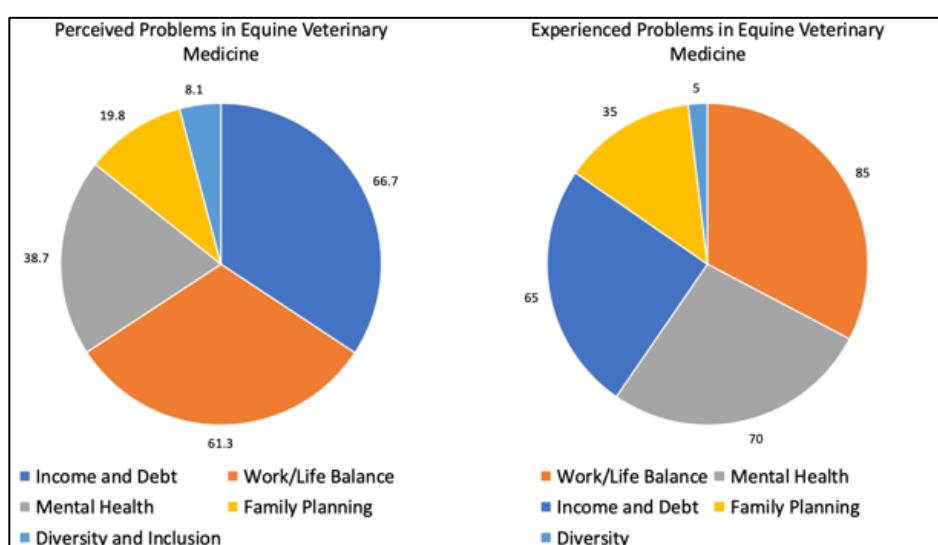


Figure 3: Survey responses from participants were organized and separated into two pie charts: perceived problems in equine veterinary medicine (1) and experienced problems in equine veterinary medicine (2). Responses from interested industry individuals are organized in pie chart 1 and responses from actively practicing equine veterinarians are organized in pie chart 2.

This is in agreement with the respondents who are interested in pursuing equine veterinary medicine, where work life balance is the second largest perceived problem. As mentioned above the lack of work-life balance in the equine veterinarian profession can lead to professionals getting workplace attrition and overall impacting their mental health [8].

A study done in Ontario, Canada found that veterinarians have poor mental health as compared to the general public [7]. The study measured depression, anxiety, burnout, compassion fatigue and resilience using psychometric scales on 412 licensed veterinarians. It

also separated these findings by gender with 70% being female and 30.5% being male [7]. The mental health scores for female respondents were overall poorer as compared to male respondents and almost half of both male and female reported experiencing high levels of burnout [7]. These scores were then compared to scores in the United Kingdom and Australia. In the UK veterinarians are experiencing depression at the same rate but the Australian veterinarian depression incidence is lower as compared to Canada [7]. In United States the 2016 AVMA-AAEP Survey of Equine Practitioners found that 23.3 percent of the female respondents reported their mental health to range from fair to very poor while only 9.9 percent of males reported their mental health to range from fair to very poor [4]. It is likely that unavoidable everyday aspects of the profession contribute to these poor mental health scores.

It is widely described that the veterinarian profession is accompanied by an abundance of occupational stressors which likely are contributing to these poor mental health scores. These include client conflict, high work demands, and personal finances [8]. Client conflict presents in the form of difficult interactions with clients, rude or unreasonable expectations and supporting clients through grief [8]. A survey that collected responses from more than 100 equine veterinarians stated that although client relationships were a positive aspect of the career, unrealistic expectations and lack of respect contribute to difficult client interactions [19]. Disrespect toward the veterinarian from the client presents in a rude or angry attitude most of the time due to disrespect for the veterinary profession and clients personal concerns including for their animal and financials. These tense interactions can cause veterinarians to feel withdrawal from clients and impaired confidence in their profession [8]. High work demands also contribute to veterinarians experiencing poor mental health [18]. Workdays extending well over the typical 40 hours with limited breaks during the work-day and fewer new graduates entering the equine

practice are linked to increasing occupational stress. Increased incidence of psychological stress predisposes individuals to developing further mental health disorders such as burnout, anxiety and depressive disorders [18]. The lack of young veterinarians entering the equine sector is also placing strain on those who remain in the career. For the equine veterinarians currently practicing near retirement, the pressure for them to keep practicing increases as they do not have someone to fill their position [19]. Along with stressors directly from the nature of the occupation, personal finances contribute to the load of occupational stress. These include student debt and poor payment in return for services. From 2010-2016 American veterinarians had the smallest average pay increase compared to other medical professionals [8]. The lack of income increase met with educational debt repayment places stress on all professionals but especially new equine veterinarians entering the industry. From the survey responses, mental health was ranked as the second largest experienced problem by actively practicing equine veterinarian respondents (See figure 3). Survey respondents outside of the equine practitioner population ranked mental health as lesser of a problem in comparison to work-life balance (1) and income and debt (2). This shows that while people in the veterinarian industry understand the toll the profession takes on mental health, those outside the industry do not. Since client conflict is associated with poor mental health it is important to understand that horse owners are not contributing this as a larger problem in equine medicine.

Poor work-life balance and mental health are met with an uneven income-to-debt ratio which may also be contributing to the equine veterinarian shortage. Equine veterinarians have historically been paid lower salaries when compared to companion, food animal and mixed animal sectors of the industry [6]. The American Veterinary Medical Association (AVMA) analyzed employment, starting salaries and educational indebtedness for 2020 graduates of

United States Veterinary medical colleges [6]. The average amount of educational debt across new graduates is \$100,000 according to the AVMA but it is not uncommon to reach upwards of \$200,000 and beyond according to the AAEP [6,15]. The average starting salary for these graduates pursuing a career in companion animal care was \$98,000, while food animal was \$88,000, and equine medicine was \$75,000 [6]. This decrease in salary could potentially be swaying newly graduated vets away from equine medicine. Dr. Emma Reed, president of the AAEP, points out that this uneven salary to debt ratio is causing less replacement of retiring equine veterinarians by newly graduated ones [15]. This statement is supported by the survey findings as cost of education was the primary reason for becoming disinterested in pursuing equine veterinary medicine among all survey respondents, see Figure 4.

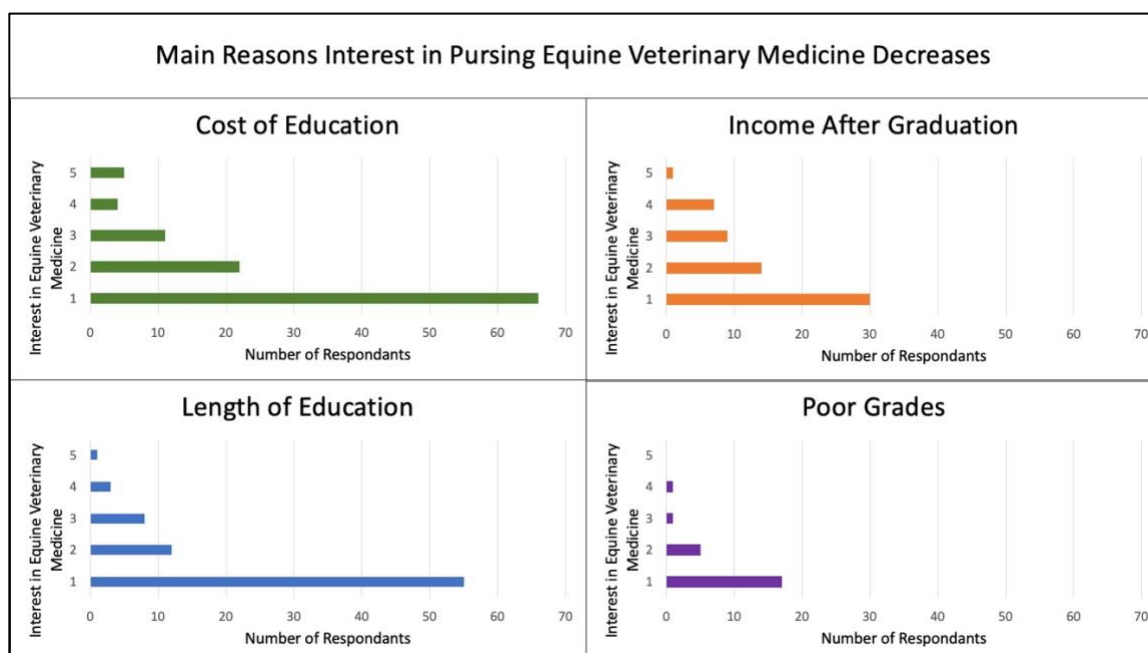


Figure 4: Survey responses from respondents ranging in interest level to enter equine medicine are organized in four bar graphs. The graphs represent each response that correlates to the reason why each respondent has lost interest in equine medicine.

The interest level to pursue equine medicine of survey respondents was measured on a scale of 1 to 5, 1 being uninterested and 5 being very interested. Cost of education was the main driving factor away from continuing to pursue a career in equine medicine for the majority of

respondents who reported being very uninterested. Respondents also noted length of education (2), income after graduation (3), and poor grades (4) as main reasons for becoming disinterested. It is not uncommon for the cost of education to extend past undergraduate education and veterinarian school putting a further divide in the debt-to-income ratio.

Often times, newly graduated veterinarians go into an internship or residency which defers debt repayment causing more interest to accrue [19]. As debt continues to grow but salary does not, a strain is placed on equine veterinarians to meet financial demands. With the recent urge to stop the equine veterinary shortage there has been an increase in average starting salary for equine veterinarians [11]. Salary has increased from the \$75,000 in 2021 to \$95,000 in 2023. For the equine industry this increase was largely beneficial as it has helped equine veterinarians know that their practice owners and supporting agencies such as the AAEP recognized the importance of their lack of compensation [11]. The downfall is that this increase was accompanied by an equal increase for companion animal care making their starting salary \$133,000 [11]. Continuing to increase both sectors does not make entering equine practice any more appealing to those who may be on the fence or desiring to pay off educational loans (see figure 5). Although for those who have lost interest their main concern was length of education, income after graduation was also in the top three answers. Addressing the uneven salaries across the veterinary industry could be an important factor in keeping people's desire to enter equine medicine.

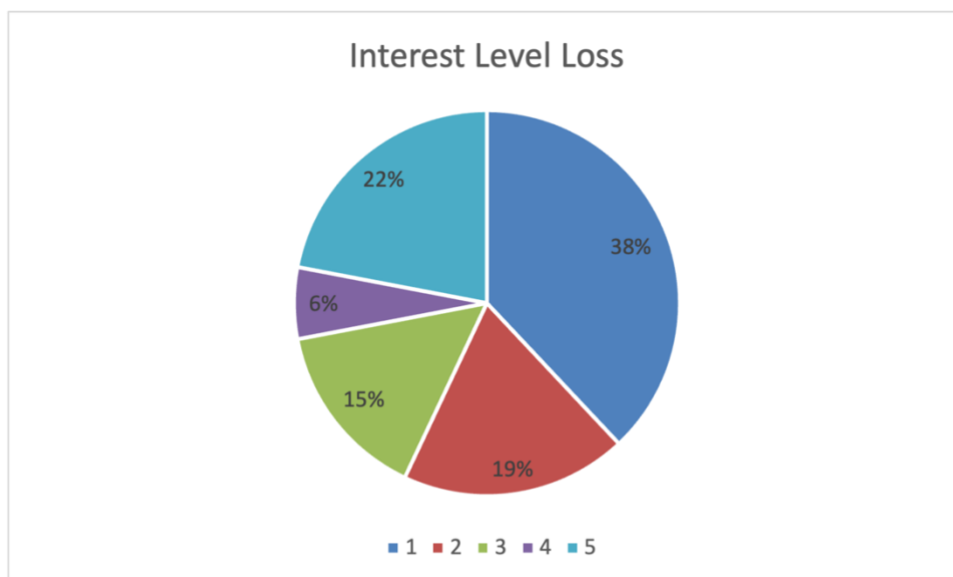


Figure 5: Respondents in the survey that previously had interest in entering equine medicine were surveyed on what their interest in the profession is now. 5 was very interested where 1 is uninterested. As seen in the pie chart over half of the respondents responded with a one or a two, representing no longer having interest while only 28% reported still having interest. This is an extreme loss of nearly 80% of individuals who once did want to enter equine medicine.

Not only is the increased starting salary lower than companion animal care it is also lower than the average salary for all individuals with an equal level of education (doctoral degree) in the three states with the highest horse population. According to the AHC's recent economic impact study the top three populated horse states were California, Florida and Texas [3]. The average starting salary for individuals with a doctorate in these states is \$127,000 (California), \$147,000 (Florida) and \$114,000 (Texas) [20]. The divide in salary for individuals practicing different medicine but with the same degree should be addressed to lessen the income-to-debt ratio and potentially increase the population of equine veterinarians.

Conclusion

The findings from the survey conducted to identify leading causes of the equine veterinarian shortage align with the findings from several published pieces of literature. The leading causes of concern identified by the survey are lack of work-life balance, decreasing mental health and uneven income to debt ratio. The lack of work-life balance stems from the

nature of the job, lack of urgent care facilities and the requirement of being on-call. Often schedules are over-booked causing doctors to not have breaks during the workday which pushes work responsibilities to be followed up after the workday, encroaching into personal life. The lack of urgent care facilities causes an increased need for doctors to be on-call during their time away from the clinic. This makes it difficult for equine veterinarians to create separation between work life and private life. The lack of work life balance along with other issues have led to a decline in veterinarian mental health. These issues include difficult client relations such as rude interactions and unreasonable expectations, high work demands and personal finances. An increase in occupational stress can lead to further mental health disorders such as depression, anxiety and burnout. Personal finances not only contribute to poor mental health but the income of equine veterinarians is significantly lower compared to other sectors of the veterinarian industry. This low salary compared to the excessive educational debt newly graduated DVMs have has the potential to deter new veterinarians into the industry. Although mental health, work-life balance and debt-to-income ratio are leading problems identified in the equine veterinarian industry, a decrease in youth involvement could also be having an impact. Having equine exposure during developmental stages of individuals youth has the potential to put them on the track of being inspired to dedicate themselves to equine medicine. With less of this, the equine veterinarian shortage could even be due to well beyond the undergraduate or veterinarian school years.

References

1. *AAEP creates commission to alleviate equine veterinarian shortage*. AAEP. (2022, July 7). <https://aaep.org/news/aaep-creates-commission-alleviate-equine-veterinarian-shortage>.
2. *AAEP equine veterinarians, 2005-2018*. Data Paddock. (2019, September 3). <https://datapaddock.com/aaep-equine-veterinarians-2005-2018/>
3. *Economic Impact Study*. American Horse Council. (January, 2024). <https://horsecouncil.org/economic-impact-study/>
4. *Economic Report - AVMA & AAEP*. ebusiness.avma.org. (2016). <https://aaep.org/resource/aaep-avma-economic-report/>
5. *Pony Club membership in decline*. DiscountMags.com. (2016, April 21). <https://www.discountmags.com/magazine/horse-and-hound-april-21-2016-digital/in-this-issue/11349?srsId=AfmBOorqmjt7vi5yYKNsrAbf1IPW7noRpXVOR1NLgtNM5yWA7ASxLhaX>
6. Bain, B. (2021, April 15). Employment, starting salaries, and educational indebtedness analyzed by gender for year-2020 graduates of US Veterinary Medical Colleges. *Journal of the American Veterinary Medical Association*, 258(8), 865-869. <https://doi.org/10.2460/javma.258.8.865>
7. Best, C. O., Perret, J. L., Hewson, J., Khosa, D. K., Conlon, P. D., & Jones-Bitton, A. (2020). A survey of veterinarian mental health and resilience in Ontario, Canada. *The Canadian veterinary journal = La revue veterinaire canadienne*, 61(2), 166–172.
8. Campbell, M, Hagen, B, Gohar, B, Wichtel, J, Jones-Bitton, A. Don't 'dog' the tough questions. Understanding the occupational stressors and the perceived impacts of mental health on veterinarians' provision of care. Poster presented at: 16th International Symposium of Veterinary Epidemiology and Economics 2022 Aug 6-11
9. Defore, A. B., Fuhrman, N. E., Peake, J. B., & Duncan, D. W. (2011). Factors influencing 4-H club enrollment and retention in Georgia. *Journal of Youth Development*, 6(2), 58–71. <https://doi.org/10.5195/jyd.2011.188>
10. Hilton, KR., Burke, KJ. and Signal, T., Mental health in the veterinary profession: an individual or organisational focus? *Aust Vet J*. 2023; 101: 41–48. <https://doi.org/10.1111/avj.13215>
11. Larkin, M. (2023, October 31). *New Equine Practitioners' salaries see Big Increase*. American Veterinary Medical Association. <https://www.avma.org/news/new-equine-practitioners-salaries-see-big-increase#:~:text=The%20AAEP%20attributes%20the%20attrition,of%20compensation%20for%20equine%20vets.>

12. Lewis, K. M., Hensley, S., Bird, M., Rea-Keywood, J., Miller, J., Kok, C., & Shelstad, N. (2022). Why Youth Leave 4-H After the First Year: A Multistate Study. *Journal of Human Sciences and Extension*, 10 (3), 5. DOI: <https://doi.org/10.55533/2325-5226.1429>
13. Loomans, J.B.A., Waaijer, P.G., Maree, J.T.M., van Weeren, P.R. and Barneveld, A. (2009), Quality of equine veterinary care. Part 2: Client satisfaction in equine top sports medicine in The Netherlands. *Equine Veterinary Education*, 21: 421-428. <https://doi.org/10.2746/095777309X448944>
14. Nolen, R. S. (2022, October 26). *Pet ownership rate stabilizes as spending increases*. American Veterinary Medical Association. <https://www.avma.org/news/pet-ownership-rate-stabilizes-spending-increases#:~:text=During%20her%20talk%2C%20Radich%20highlighted,be%20finalized%20later%20this%20year>
15. Nolen, R. S. (2022, August 17). *Labor shortage prompts AAEP to form Workforce Commission*. American Veterinary Medical Association. <https://www.avma.org/news/labor-shortage-prompts-aaep-form-workforce-commission>
16. Millen, T. (2023, April 11). *Canadian pony club: Then and now*. Horse Journals. <https://www.horsejournals.com/riding-training/english/dressage/canadian-pony-club-then-and-now>
17. Peart, S., & Myatt, K. (2023, March 24). *Equine veterinary crisis - sustaining emergency and critical care services in an ever-changing landscape*. Virginia-Maryland College of Veterinary Medicine | Virginia Tech. <https://vetmed.vt.edu/news/2023/equine-veterinary-crisis.html>
18. Pohl, R., Botscharow, J., Böckelmann, I., & Thielmann, B. (2022). Stress and strain among veterinarians: a scoping review. *Irish veterinary journal*, 75(1), 15. <https://doi.org/10.1186/s13620-022-00220-x>
19. Boehringer Ingelheim. (2023, July 10). *Survey Results Show Equine Veterinarians Struggling With Wellness, Burnout*. <https://bi-animalhealth.com/equine/articles/survey-results-show-equine-veterinarians-struggling-with-wellness-burnout>
20. *Phd: Average Salary in 2024*. Talent.com. (2024). <https://www.talent.com/salary?job=Family%2BPractice%2BDoctor&location=Fort%2BLauderdale%2C%2BFL>