



UNIVERSITY OF CALGARY FACULTY OF VETERINARY MEDICINE

This review accompanies the relevant episode of the Cutting Edge veterinary podcast. In each episode of this podcast, 3rd year students in the University of Calgary's veterinary medicine program fill you in on the most up-to-date literature and evidence-based practices on topics that matter to you, the practicing veterinarian.

Access to Affordable Veterinary Care: Implications and Solutions

STUDENTS: Alexandra Burk, Safira Teja

FACULTY MENTORS: Dr. Serge Chalhoub, Dr. Tessa Baker

In the last few years, various trends have presented themselves within the veterinary industry; an increase in the number of people with pets,¹ an increase in the costs of veterinary care,² an increase in client dissatisfaction with costs of care,³ a consistent demand to control stray animals and animal shelter use,⁴ and an increase in mental illness and suicides in veterinary professionals.⁵ All of these trends have ties to one overarching issue with far reaching impacts: access to affordable veterinary care.

This paper will discuss the impact that a current lack of access to affordable veterinary care has on three main stakeholder groups: workers in the veterinary industry including veterinarians; the animal care community comprising of shelters and civil society organizations; and finally various groups of marginalized populations including unhoused populations, rural populations, and Indigenous populations. This report will also briefly discuss different models and approaches that are being used to improve access to affordable veterinary care, and how these can be incorporated locally.

Veterinarians and Veterinary Staff:

Access to affordable veterinary care is often viewed from the lens of the client. However, research is starting to recognize how impactful this issue is for those working within the veterinary industry. Various studies have shown that veterinary professionals have poorer mental health than the general population in multiple countries including the UK,⁶ Australia,⁷ and the US.⁸ Although research focusing on mental health in the veterinary industry in Canada is relatively limited, studies have shown this trend is consistent in Canada as well. An article published in the CVJ in 2020 that surveyed veterinarians in Ontario found that various mental health indices including those for depression, anxiety, burnout, and secondary traumatic stress were similar to rates found amongst veterinarians in other regions, and are consistent in reflecting "poorer

mental health compared to the general population in many countries worldwide”.⁹ Another study that focused on suicide rates in Quebec found that between 1987-2007, the rate of suicide was 2.9 times higher in veterinarians than in the general population.¹⁰ Moreover, research shows that the mental health difficulties veterinarians and other veterinary staff face have increased throughout the Covid-19 pandemic, exacerbating this already concerning issue.⁵

While there are various contributors to the low mental health indices seen in veterinary staff, ethical dilemmas and moral stress/ distress is becoming increasingly implicated.^{2, 11-13} In one study, the majority of respondents stated that they experience an ethical dilemma at least weekly, and that these ethical dilemmas are the leading cause of work-related stress.¹¹ A recent article published in 2023 focused on moral distress, which the authors define as “the powerlessness, anger, and guilt that health-care professionals experience when they are unable to practice medicine according to their own ethical standards”.² This research found that limited owner finances was a common area for moral distress, and that moral distress was a negative predictor of professional fulfillment and personal fulfillment, and a positive predictor for work exhaustion, interpersonal disengagement, and burnout.² Concerningly, these researchers also found that “one-third of respondents noted that fewer clients (compared to 2 years ago), could afford the recommended treatment for managing their pets’ health, with 84% of these veterinarians reporting this change as distressing”.² Evidently, a lack of access to affordable veterinary care has significant and undisputable consequences on the mental health of veterinarians and other veterinary staff.

Animal Care Community:

In addition to the direct veterinary industry, affordable vet care has vast implications on the animal care community. Animal shelters exist in an effort to improve animal welfare for both stray and surrendered companion animals.¹⁴ While pursuing this, shelters also have a role of providing essential services to animals who are surrendered by individuals who can no longer care for and support their animal to their desired capacity.¹⁵ A shelter’s “Capacity for Care” can be strained when alternative sources for affordable animal care are not available to pet owners, and surrendering is viewed as a sole option.¹⁶ This exemplifies the need for alternatives to animal shelters, which can only be accomplished by understanding the relationship between socially vulnerable populations and their companion-animals.¹⁷ In fact, animal surrender rates can be predicted by social determinants.¹⁸

The One Welfare framework describes how the sustainability of pet ownership and human-animal companionship are directly influenced by the socioeconomic status of owners.¹⁸ Despite the evidence that individuals experiencing homelessness did not

regularly access veterinary care due to financial restrictions,¹⁹ the perceptions of “poor animal care,”¹⁹ and “irresponsible pet ownership”²³ within these populations can be challenged. In fact, evidence has shown that individuals who are at a higher risk of surrendering their pet to an animal shelter own animals that are “as healthy as the general population”.^{17,19} This is very concerning for multiple reasons: surrendering these animals results in a high burden for shelters and causes animals to be put into an unfamiliar environment that often cause these pets increased stress and anxiety, increased periods of isolation, increased exposure to infectious diseases, and decreased affection from an owner.²⁰ This challenges the commonly held idea that pets of owners who cannot afford veterinary care are ‘better off’ being surrendered, and suggests that if fewer of these pets were surrendered, it would increase shelter capacity and improve animal welfare for these pets. This is reflected in a study completed in 2021 in the midst of the Covid-19 pandemic which found that “affordable and accessible veterinary care that results in a positive experience is indicated to improve animal welfare and prevent animals from prolonged distress”.^{25, 26}

Literature describes how the overwhelming demand for financial and geospatially accessible veterinary care overwhelms the current efforts of non-profit animal-care organizations, community-based foundations, and individual veterinary clinic price reductions in Canada.²¹ This evidence suggests that providing financial subsidies cannot be the sole strategy to resolve the financial burden of seeking veterinary care and improve pet-ownership retention. The University of Calgary Faculty of Veterinary Medicine-Calgary Urban Project Society (UCVM-CUPS) Pet Health Clinic program based out of Calgary, Alberta is an example of a program that strives to approach accessibility to veterinary care from a One Welfare perspective.²² The clinic provides free veterinary care that is embedded within an organization (CUPS) that also provides human health services, family development resources, economic support, and social and emotional support services,²² which may be the most effective format for addressing animal welfare. This is supported by literature that describes that improving human housing and physical and mental health will directly benefit animals at risk for surrender due to these owner limitations.¹⁴ The various interactions between an owner’s health and their pets’ health will be discussed further in the next section. By looking at the research on the animal care community, it becomes clear that access to affordable veterinary care, through means beyond only subsidies, is essential in decreasing the burden of the shelter system and in increasing the welfare of pets that may otherwise end up surrendered to these shelters.

Marginalized populations:

Many veterinarians and veterinary professionals see themselves as playing an important role in giving a voice to the voiceless animals that we work with. However, lack of affordability of veterinary care often means that the veterinary industry often perpetuates the marginalization of other 'voiceless' members of society, including unhoused populations, rural populations, and Indigenous clients. There is a prevailing belief within the industry that anyone who cannot afford the cost of veterinary care should not own an animal. However, various research has challenged this myth of 'responsible ownership' and how we define it. When examining this belief, it is essential to acknowledge that the definition of who is considered a 'responsible pet owner' is shaped by other societal tropes and stereotypes, including biases on how we think of unhoused populations and racialized populations.²³ Because of these underlying cultural values that shape how we define a 'responsible' pet owner, many of the people that are considered 'irresponsible' come from vulnerable populations that already face societal marginalization and discrimination. Acknowledging this reality is essential in understanding why the notion of a 'responsible' pet owner is flawed.

One group that is often considered unfit to own pets is the unhoused. There are various publications that emphasize the importance and dedication that many unhoused owners feel towards their pet. Qualitative research, including interviews conducted in the book *My Dog Always Eats First: Homeless People and their Animals*, has found that people experiencing homelessness often put the health and welfare of their companion animals above their own.²⁴⁻²⁷ This is consistent with a study published in 2022 that found that unhoused owners sourced medical care for their pets more than they sourced medical care for themselves, and that the participants self-described their own health as being lower than their pets' health.²⁷ This level of dedication and commitment that many unhoused people have for their pets is frequently overlooked or unacknowledged by many in the veterinary industry and by society as a whole. Understanding that a lack of financial means does not equal a lack of willpower or commitment to a pet has important implications for how to care for and manage these animals.

Given that vulnerable populations often face poorer health outcomes and various other human health challenges, this analysis cannot be complete without evaluating the impact that animal ownership has on the owners themselves. Applying a One Health lens that incorporates human, animal, and environmental health is extremely valuable for this situation given the interconnectedness and spillover effects between these spheres. In recent years, quite a bit of research has been done on the importance of the human-animal bond, and has found that pet ownership plays a crucial role in various mental and physical health indicators.²⁶ Moreover, the importance of pets may be even more pronounced in the lives of unhoused populations because their companion animals can provide them with "a myriad of benefits including safety, personal

responsibility and improved emotional and mental health”.²⁶ Although a full analysis of the benefits of pet ownership is outside the scope of this paper, there is a research consensus that pets bring important health benefits to their owners. Given this, there is debate in the literature as to whether or not it is ethical to deny people the option to have a pet due solely to barriers in accessing veterinary care.^{23, 26} Veterinary professionals are encouraged to consider this ethical debate when examining their own beliefs.

Unhoused populations are not the only group that struggle with accessing affordable veterinary care. Other vulnerable groups including people with disabilities, senior citizens, people with chronic illnesses, and rural populations are also confronted with this issue. Rural populations often face the dual burden of high costs and the difficulty of accessing a vet within a reasonable geographic distance.²⁸ Additionally, the relationship that many rural families have with their animals is often different. Rather than being a pet, some farm dogs and cats are working animals - whether they are used for herding, mousing or as guardian animals. This creates an added challenge because inaccessible veterinary care has implications on the rest of the operation, and on the viability of these animals to do their jobs. Naturally, a lack of an accessible and affordable vet is doubly problematic for anyone who also requires veterinary care for their production animals. Given the already slim profit margins and recent increases in feed costs in these industries, lack of affordable and accessible veterinary care can have devastating impacts on these families' livelihoods.²⁹

Indigenous communities are another group that often struggle to access affordable veterinary care. The role of veterinary care in Indigenous communities demands an understanding of the cultural perspective of the human-animal relationship, which can vary from the Western perspective that many veterinary professionals have. This also includes an understanding that pet ownership may be practiced differently in certain communities, where communal animal ownership and care may be practiced over individual ownership.³⁰ Moreover, many of the Indigenous communities in Canada have a unique co-existence with dogs through both companionship and work.³¹ The use of dogs for protection, hunting and transportation in Northern Canada³² contributes to how essential it is to maintain the health of these animals. While a Western perspective may not be shared by Indigenous communities, it is also important to note that there is not one 'Indigenous' perspective that applies to all Indigenous communities. Rather, it is essential that dialogue and reciprocal knowledge sharing with locals forms the foundation of accessible veterinary options for Indigenous communities.

Veterinary care also has a role in providing strategies for animal control within Indigenous communities to prevent dog attacks and control dog populations.³³ A barrier

that Indigenous communities face is the prioritization of animal control when other essential needs simultaneously and to some, more pressingly, have to be addressed to maintain human welfare, such as access to housing, water, and human healthcare.³³ To address aggressive dog populations in Indigenous communities, external help has been provided in the form of culling.³⁰ Evidence shows that this fails to offer long-term relief and can be met with resistance due to individual and cultural beliefs.³³ These cultural beliefs are shaped by historical contexts that are unique to each Indigenous community across Canada – therefore, providing subsidized veterinary care to these communities can be rejected if these contexts are not understood before intervening with a “western veterinary medicine perspective”.³⁴

Similarly to other rural populations, affordable access to veterinary care coincides with the ability to geographically access this care. Many Indigenous communities are rural and located far from veterinary clinics. This acts as yet another deterrent for Indigenous communities to seek veterinary care and adhere to veterinarian-designed animal welfare programs. Evaluation of a veterinary program based in Northern Canada indicated that community perspectives of health care have shifted since 2008, in support of preventative medicine, such as sterilization and vaccination programs, used to improve the welfare of both humans and animals.³¹ Ensuring that the perspectives and attitudes of Indigenous communities are incorporated is essential in order to foster and sustain effective interventions.

Upon reviewing the research, it becomes clear that a lack of affordable access to veterinary care has a detrimental impact on various populations, especially groups that already face societal marginalization. The evidence shows that the myth of ‘responsible’ ownership serves to further perpetuate this marginalization, and in doing so compromises the welfare of companion animals and increases the burden on the shelter system. Additionally, it is clear that accessible veterinary care must incorporate dialogue and reciprocal knowledge sharing in order to provide culturally appropriate and effective care options for all marginalized communities, but especially Indigenous communities.

Looking forward:

Throughout the research shared in this paper, it becomes clear that improving access to affordable veterinary care has positive impacts on veterinary workers, the animal care community, and marginalized populations. However, it is important to consider the financial and geospatial limitations of veterinary professionals, especially given the veterinary shortage that is occurring in Canada.³⁵ Despite this, there are various communities that have taken action in pursuit of providing more accessible and

affordable veterinary care. This section will provide a brief overview of tangible steps that have been taken globally and could be applicable to our local context.

Perhaps the most essential part of any solution is for veterinary professionals to offer a spectrum of care.⁶ This strategy provides the opportunity for veterinary professionals to practice medicine in a manner that coincides with their ethical standards for animal care,⁶ while appreciating the financial limitations of a client's animal ownership. Offering a spectrum of care also provides an opportunity for shared decision making and relationship building with people that may not have had positive experiences at a veterinary clinic previously. It is important that veterinarians are aware that providing a spectrum of care does not mean providing substandard care.³⁶ The spectrum-of-care approach allows veterinarians to provide clients the care that they mutually agree upon, and allows for a level of care that, while not gold standard, is more than the animal would receive if the only option presented was out of reach for the owner.³⁶ Additionally, providing incremental care, which “is an improvement strategy that is patient centered, evidence-based medicine in the context of limited resources”, is essential in providing animals with alternatives to doing nothing, or to being surrendered.³⁶ In this way, providing a spectrum of care is essential in bridging the gap between marginalized populations and veterinarians.

Research has also shown that creating a focus on preventative medicine by providing accessible, accurate, and palatable literature to educate communities about caring for their animals, especially communities that cannot directly access veterinary care.³⁰ This can include providing information about important preventative measures such as keeping animals a healthy weight, providing them with appropriate amounts of exercise, encouraging dental care by teeth brushing, etc. While this approach will not eliminate the need for access to veterinary care, it can assist in improving the overall health of animals, and decreasing the frequency with which a vet may be needed.

Another approach is to increase the availability of affordable telemedicine. This strategy may be particularly helpful for communities that are not in close geographic proximity to a veterinary professional. However, research³⁷ has shown that it is essential this approach “involve good communication, be culturally competent, and be relationship-centered with balanced power between the client and veterinarian based on mutuality, negotiation, and joint agreement”²⁵ to be an effective and sustainable form of intervention. In addition, this approach requires collaboration with licensed regulatory agencies.

Given the overwhelming evidence of the public health benefits of companion animal ownership, there have also been recent calls for governments to view maintaining a

healthy human-animal relationship as a public health concern in order to achieve adequate funding for marginalized populations. This approach was used by a United States national companion animal welfare organization to manage animal-shelter intakes during the COVID-19 pandemic.^{16, 23} In an effort to reduce shelter-intakes, animal control officers were instructed to redirect their focus from distributing violations to educating owners on animal welfare and providing supplies to support companion animal health.²³ This program was effective, and this approach can be used as a model for future initiatives to manage a shelters' capacity for care. However, more work needs to be done to make this approach recognized by municipal companion animal ownership regulations.

Beyond government and veterinary industry efforts, there is also room for various civil society organizations to play an important role in increasing access to affordable veterinary care. For example, in Calgary a charity called Parachutes for Pets is "dedicated to helping vulnerable Calgarians with their pets before they turn to shelters".³⁸ They provide various services including a warming center for unhoused populations and their pets in the winter, a pet thrift store to provide affordable pet-related items, pet food hampers, homeless pet packs, and assistance to foster children or people experiencing domestic abuse to ensure they can keep their pets.³⁸ Additionally, Parachutes for Pets partners with a local veterinary clinic to arrange for funded veterinary visits for their clients when needed.³⁸ Organizations such as these can serve a vital role in solving the issue of affordable veterinary care. Ensuring that they have adequate funding, partnership and support from government and the veterinary industry is essential in these organizations' reach and longevity.

The solutions described above are also applicable within Indigenous communities. When considering the application of these solutions in this context, collaborative discussions and shared goal setting within individual communities must form the foundation of any approach. Creating a relationship of trust, cultural competence, and non-judgmental curiosity will enable open discussions and collaboration. Depending on feedback from local communities, approaches such as telemedicine, education on preventative medicine, offering spectrum-of-care options, and working with government and civil society can provide opportunities to bridge the gap of care in an effective manner for the local community.

Conclusion

The issue of access to affordable veterinary care has wide reaching impacts on veterinary workers, the animal care community, and on marginalized populations including unhoused, rural, and Indigenous communities. Beyond threatening the mental health of veterinary workers, it also poses a threat to the ability of shelters to adequately

care for animals, the welfare of pets, and the ability of marginalized communities to maintain meaningful relationships with their companion animals. At the root of any solution is the necessity for veterinary workers to take a non-judgmental spectrum of care approach, with emphasis on reciprocal knowledge sharing and shared decision making. Additionally, advances in preventive medicine education, telemedicine, government support, and civil society organizations offer promising opportunities to overcome this problem in the future.

REFERENCES

1. Anon. 2022 - Latest Canadian Pet Population Figures Released | Communiqués de presse. Available at: <https://www.cahi-icsa.ca/fr/press-releases/2022-latest-canadian-pet-population-figures-released#:~:text=From%202020%2D2022%2C%20the%20Canadian,to%208.5%20million%20for%20cats>. Accessed January 28, 2024.
2. Kogan LR, Rishniw M. Veterinarians and moral distress. *Journal of the American Veterinary Medical Association* 2023;261:1–7. Available at: <https://avmajournals.avma.org/view/journals/javma/261/5/javma.22.12.0598.xml>. Accessed January 28, 2024.
3. Rogers CW, Murphy LA, Murphy RA, et al. An analysis of client complaints and their effects on veterinary support staff. *Vet Med Sci* 2022;8:925–934. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8959328/>. Accessed January 28, 2024.
4. Doherty C. No shelter: What the data say on animal relinquishments. *Can Vet J* 2022;63:1165–1167. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9558595/>. Accessed January 28, 2024.
5. Anon. Study captures pandemic's impact on veterinary profession | American Veterinary Medical Association. 2022. Available at: <https://www.avma.org/news/study-captures-pandemics-impact-veterinary-profession>. Accessed January 28, 2024.
6. Bartram DJ, Yadegarfar G, Baldwin DS. A cross-sectional study of mental health and well-being and their associations in the UK veterinary profession. *Soc Psychiatry Psychiatr Epidemiol* 2009;44:1075–1085.
7. Hatch PH, Winefield HR, Christie BA, et al. Workplace stress, mental health, and burnout of veterinarians in Australia. *Aust Vet J* 2011;89:460–468.
8. Nett RJ, Witte TK, Holzbauer SM, et al. Risk factors for suicide, attitudes toward mental illness, and practice-related stressors among US veterinarians. *J Am Vet Med Assoc* 2015;247:945–955.

9. Best CO, Perret JL, Hewson J, et al. A survey of veterinarian mental health and resilience in Ontario, Canada. *Can Vet J* 2020;61:166–172. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6973204/>. Accessed January 28, 2024.
10. Anon. Vétérinaires en détresse. *La Presse+* 2018. Available at: https://plus.lapresse.ca/screens/70d0d375-28ba-47c5-9599-51e42a8d016a|_0.html. Accessed January 28, 2024.
11. Kipperman B, Morris P, Rollin B. Ethical dilemmas encountered by small animal veterinarians: characterisation, responses, consequences and beliefs regarding euthanasia. *Veterinary Record* 2018;182:548–548. Available at: <https://bvajournals.onlinelibrary.wiley.com/doi/10.1136/vr.104619>. Accessed January 28, 2024.
12. Morgan CA, McDonald M. Ethical Dilemmas in Veterinary Medicine. *Veterinary Clinics of North America: Small Animal Practice* 2007;37:165–179. Available at: <https://www.sciencedirect.com/science/article/pii/S0195561606001100>. Accessed January 28, 2024.
13. Rollin BE. Euthanasia, moral stress, and chronic illness in veterinary medicine. *Vet Clin North Am Small Anim Pract* 2011;41:651–659.
14. Koralesky KE, Rankin JM, Fraser D. The everyday work of One Welfare in animal sheltering and protection. *Humanit Soc Sci Commun* 2022;9:1–10. Available at: <https://www.nature.com/articles/s41599-022-01455-3>. Accessed January 28, 2024.
15. McDowall S, Hazel SJ, Chittleborough C, et al. The Impact of the Social Determinants of Human Health on Companion Animal Welfare. *Animals (Basel)* 2023;13:1113. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10044303/>. Accessed January 28, 2024.
16. Karsten CL, Wagner DC, Kass PH, et al. An observational study of the relationship between Capacity for Care as an animal shelter management model and cat health, adoption and death in three animal shelters. *Vet J* 2017;227:15–22.
17. French SK, Pearl DL, Lem M, et al. Understanding the associations between owner and pet demographics on pet body condition among those experiencing homelessness and housing vulnerability in Canada. *Preventive Veterinary Medicine* 2021;195:105454.

Available at: <https://www.sciencedirect.com/science/article/pii/S0167587721001987>.
Accessed January 28, 2024.

18. Ly LH, Gordon E, Protopopova A. Exploring the Relationship Between Human Social Deprivation and Animal Surrender to Shelters in British Columbia, Canada. *Front Vet Sci* 2021;8:656597. Available at:
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8006318/>. Accessed January 28, 2024.

19. Williams DL, Hogg S. The health and welfare of dogs belonging to homeless people. *Pet Behav Sci* 2016:23–30. Available at:
<https://www.uco.es/ucopress/ojs/index.php/pet/article/view/3998>. Accessed January 28, 2024.

20. Horecka K, Neal S. Critical Problems for Research in Animal Sheltering, a Conceptual Analysis. *Frontiers in Veterinary Science* 2022;9. Available at:
<https://www.frontiersin.org/articles/10.3389/fvets.2022.804154>. Accessed January 28, 2024.

21. Harding MJ. Access to veterinary care for low-income Canadians. *The Canadian Veterinary Journal* 2018;59:1121. Available at:
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6135307/>. Accessed January 28, 2024.

22. Anon. CUPS | Calgary Services | Calgary Community Programs. *CUPS Calgary*. Available at: <https://www.cupscalgary.com/programs-services>. Accessed January 28, 2024.

23. Guenther KM. Understanding the Durable Myth of the “Irresponsible Pet Owner.” *Contexts* 2023;22:32–37. Available at:
<http://journals.sagepub.com/doi/10.1177/15365042231192498>. Accessed January 28, 2024.

24. Cameron AE. Understanding Non-Human and Human Animal Relationships in American Society. *Qual Sociol* 2014;37:467–470. Available at:
<https://doi.org/10.1007/s11133-014-9290-z>. Accessed January 28, 2024.

25. Morris A, Wu H, Morales C. Barriers to Care in Veterinary Services: Lessons Learned From Low-Income Pet Guardians’ Experiences at Private Clinics and Hospitals During COVID-19. *Frontiers in Veterinary Science* 2021;8. Available at:

<https://www.frontiersin.org/articles/10.3389/fvets.2021.764753>. Accessed January 28, 2024.

26. Kogan LR, Accornero VH, Gelb E, et al. Community Veterinary Medicine Programs: Pet Owners' Perceptions and Experiences. *Frontiers in Veterinary Science* 2021;8. Available at: <https://www.frontiersin.org/articles/10.3389/fvets.2021.678595>. Accessed January 28, 2024.

27. Ramirez V, Frisbie L, Robinson J, et al. The Impact of Pet Ownership on Healthcare-Seeking Behavior in Individuals Experiencing Homelessness. *Anthrozoös* 2022;35:615–632. Available at: <https://www.tandfonline.com/doi/full/10.1080/08927936.2022.2042082>. Accessed January 28, 2024.

28. Lem M. Barriers to accessible veterinary care. *Can Vet J* 2019;60:891–893. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6625179/>. Accessed January 28, 2024.

29. Government of Canada SC. Growing and raising costs for farmers. 2022. Available at: <https://www.statcan.gc.ca/o1/en/plus/2413-growing-and-raising-costs-farmers>. Accessed January 28, 2024.

30. Fraser-Celin V-L, Rock MJ. One Health and reconciliation: media portrayals of dogs and Indigenous communities in Canada. *Health Promot Int* 2021;37:daab110. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9053465/>. Accessed January 28, 2024.

31. Baker T, Rock M, Brook R, et al. Indigenous community perspectives on dogs in Northern Canada after 10 years of veterinary services indicates improved animal and human welfare. *Preventive Veterinary Medicine* 2020;181:105061. Available at: <https://www.sciencedirect.com/science/article/pii/S0167587720303317>. Accessed January 28, 2024.

32. Baker T, Rock M, Bondo K, et al. 11 years of regular access to subsidized veterinary services is associated with improved dog health and welfare in remote northern communities. *Preventive Veterinary Medicine* 2021;196:105471. Available at:

<https://www.sciencedirect.com/science/article/pii/S0167587721002154>. Accessed January 28, 2024.

33. Dhillon J, Favel D, Delorme D, et al. Finding pathways for bite prevention and decreasing dog populations: The process of animal control for indigenous communities in Canada – Te Mauri – Pimatisiwin. Available at: https://journalindigenuswellbeing.co.nz/journal_articles/finding-pathways-for-bite-prevention-and-decreasing-dog-populations-the-process-of-animal-control-for-indigenous-communities-in-canada/. Accessed January 28, 2024.

34. Baker T, Flaig J, Shillingford M, et al. Ice road vets: Perspectives on the role of veterinarians in northern community health. *Can Vet J* 2018;59:668–672. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5949947/>. Accessed January 28, 2024.

35. Anon. Veterinary Workforce Shortage. *Canadian Veterinary Medical Association*. Available at: <https://www.canadianveterinarians.net/policy-and-outreach/priority-areas/veterinary-workforce-shortage/>. Accessed January 28, 2024.

36. Access to Veterinary Care Coalition. "Access to Veterinary Care: Barriers, Current Practices, and Public Policy". *Faculty Publications and Other Works -- Small Animal Clinical Sciences*. Available at: https://trace.tennessee.edu/utk_smalpubs/17. Accessed February 12, 2024.

37. Lundahl L, Powell L, Reinhard CL, et al. A Pilot Study Examining the Experience of Veterinary Telehealth in an Underserved Population Through a University Program Integrating Veterinary Students. *Front Vet Sci* 2022;9:871928. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9083193/>. Accessed January 28, 2024.

38. Anon. Home - Parachutes For Pets. Available at: <https://www.parachutesforpets.com/>. Accessed January 28, 2024.