

Letters to the Editor

Trap-spay-vaccinate-release for cats

In their recent letter to the editor, Weedon et al¹ argue that the AVMA should update its policy on free-roaming and abandoned feral cats to focus on trap-neuter-vaccinate-release (TNVR) for outdoor community cats. I wonder, however, whether TNVR shouldn't be changed to trap-spay-vaccinate-release, with programs focusing on spaying female cats but not castrating male cats. Spaying 90% of female cats should result in an approximately 90% reduction in feral kittens, but neutering 90% of male cats will likely not have any substantial effect on the overall population. The cost of TNVR programs could be reduced if males were no longer castrated.

*William Kerr, DVM, MPH, MS, DACVPM
Corpus Christi, Tex*

1. Weedon GR, Levy J, Hurley KF, et al. AVMA policy on trap-neuter-vaccinate-return programs for free-roaming cats. *J Am Vet Med Assoc* 2015;246:49–50.

Changing the culture of antimicrobial use

The recent commentary from the AVMA Task Force for Antimicrobial Stewardship in Companion Animal Practice¹ represents the continuation of a conversation that has already spanned several generations. I agree with the task force that as a profession, we need to be more prudent in the use of antimicrobials and antiparasitic drugs. But, I wonder why this stewardship should apply only to companion animal practice.

We do not know the true impact of current antimicrobial and antiparasitic drug usage practices. Much of the current usage involves the livestock and poultry industries and, thus, is out of our control. How much this usage affects humans, their pets, and the environment will be studied for years. In the meantime, however, we should adopt prudent usage guidelines.

Given the uncertainty, it is better to err on the side of caution.

Last November, I spoke at a meeting of the International Atomic Energy Agency on the subject of food safety and nuclear technology. During the meeting, it was brought to our attention that we still have foods imported into the United States and Canada that contain chloramphenicol and nitrofurantoin residues, and speaker after speaker suggested that most such contamination comes from veterinary products.

Very often, when practitioners are faced with a suspected bacterial infection or parasitic infestation, they prescribe an antimicrobial or antiparasitic drug without further testing. How can we change this situation? More relevant continuing education, more laws and regulations, and more clinic inspections for medical records reviews have been proposed, but none have been widely effective. The conversation, therefore, has to move to prudent usage, and that requires a culture change with economic incentives. There are alternatives to antimicrobials and antiparasitic drugs; in agriculture, we call this integrated pest and weed management.

I believe that the AVMA Task Force for Antimicrobial Stewardship in Companion Animal Practice should focus on the issue of culture change. In doing so, they should bring to the table not just veterinary professionals but also professionals from the agriculture industry and

the human medical community. More regulations will achieve very little. We must focus on a culture change with economic incentives.

*Joseph Butterweck, DVM, MD
Friant, Calif*

1. AVMA Task Force for Antimicrobial Stewardship in Companion Animal Practice. Antimicrobial stewardship in companion animal practice. *J Am Vet Med Assoc* 2015;246:287–288.

The AVMA Task Force for Antimicrobial Stewardship in Companion Animal Practice responds:

We appreciate the comments from Dr. Butterweck regarding our commentary on antimicrobial stewardship in companion animal practice.¹ Dr. Butterweck suggests that a culture change is needed in the veterinary profession's approach to antimicrobial drugs. It is our hope that the AVMA Task Force for Antimicrobial Stewardship in Companion Animal Practice may help catalyze such a culture change. Although the issue of antimicrobial resistance has spanned decades, as alluded to by Dr. Butterweck, treatment failures and a lack of effective antimicrobials are only recently being reported in companion animal practice.

In his letter, Dr. Butterweck questions why antimicrobial stewardship efforts should apply only to companion animal practice. They do not. The veterinary profession is

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Letters containing defamatory, libelous, or malicious statements will not be published, nor will letters representing attacks on or attempts to demean veterinary societies or their committees or agencies. Viewpoints expressed in published letters are those of the letter writers and do not necessarily represent the opinions or policies of the AVMA.

critically examining antimicrobial use in food animal production as well as in companion animal practice. These efforts are represented by recent guidance documents from the US FDA and new presidential initiatives. For example, 2 new guidance documents (Guidance for Industry 209 and 213) support efforts to ensure the “appropriate or judicious use of medically important antimicrobial drugs in food-producing animals” and to ensure greater veterinary oversight of antimicrobial prescriptions. This includes the removal of antimicrobial label claims for growth promotion in food-producing animals. In addition, a recent presidential initiative supports stewardship broadly across human and veterinary medicine.

That said, the AVMA Task Force for Antimicrobial Stewardship in Companion Animal Practice was charged specifically with providing guidance to encourage antimicrobial stewardship in companion animal practice. The task force was not asked to evaluate or develop regulatory policies.

We believe a culture change is occurring across the veterinary profession and among our clients. Just as there is increased awareness of the need for the judicious use of antimicrobials in human patients, there appears to be increased awareness among our clients that antimicrobials need to be used carefully in their pets. Continued dialogue will help with efforts to promote optimal use of antimicrobials and identify appropriate uses of antimicrobials in veterinary practice. Although the task force’s charge focused on one small aspect of this larger challenge, we believe that the activities of the task force help to foster an understanding of the leadership role the veterinary profession must take in promoting and advancing antimicrobial stewardship.

Jeff B. Bender, DVM, MS (chair)
Department of Veterinary
Population Medicine
College of Veterinary Medicine
University of Minnesota
Saint Paul, Minn

Tamar F. Barlam, MD, MSc
(representing Infectious Disease
Society of America)
Infectious Disease Section

Boston Medical Center
Boston, Mass

Reilly P. Glore, DVM
(representing American Animal
Hospital Association)
Brady Veterinary Hospital
Montesano, Wash

Nigel Gumley, DVM
Canadian Veterinary
Medical Association
Ottawa, ON, Canada

Sharon E. Grayzel, DVM, MPH
Columbia Veterinary Center
Vancouver, Wash

Christine Hoang, DVM, MPH
AVMA
Schaumburg, Ill

Michael J. Murphy, DVM, PhD
Center for Veterinary Medicine
US FDA
Rockville, Md

Mark G. Papich, DVM, MS
Department of Molecular
Biomedical Sciences
College of Veterinary Medicine
North Carolina State University
Raleigh, NC

Jane E. Sykes, BVSc, PhD
Department of Medicine
and Epidemiology
School of Veterinary Medicine
University of California-Davis
Davis, Calif

Jeffrey L. Watts, PhD
(representing Animal Health Institute)
Anti-Infectives Research VMRD
Zoetis
Kalamazoo, Mich

Jean M. Whichard, DVM, PhD
CDC
Atlanta, Ga

1. AVMA Task Force for Antimicrobial Stewardship in Companion Animal Practice. Antimicrobial stewardship in companion animal practice. *J Am Vet Med Assoc* 2015;246:287–288.

Maternity benefits for veterinarians

The February 15, 2015, JAVMA News story “Pregnancy in Practice”¹ addresses a very important topic and talks about real-life situations to which veterinarians across the country will be able to relate. As an extension of the scenarios brought

forward in that article, I want to highlight the work being done by the AVMA Group Health and Life Insurance Trust (AVMA GHLIT) on behalf of female veterinarians, specifically those who may be considering starting or growing their family.

Our short-term disability policy includes a maternity benefit that was specifically created to help meet the needs of female veterinarians. This policy could be especially helpful for individuals who work in practices that aren’t subject to Family Medical Leave Act (FMLA) requirements allowing for unpaid time off for family and medical reasons. Regardless of whether a pregnant veterinarian is provided with time off under the FMLA, the GHLIT’s short-term disability benefit may provide up to 12 weeks of coverage for leave related to a pregnancy, in addition to any other insurance coverage that may be in place. This type of benefit is unique in the individual disability insurance world and has been customized to meet the physical demands of veterinary practice.

Additionally, the GHLIT offers a hospital indemnity plan that can pay a daily benefit for a mother-to-be who is admitted, whether for a normal delivery or Cesarean section. Again, this coverage has been customized for the demanding needs of veterinarians.

Finally, I want to thank JAVMA News for discussing the unique challenges that women in the veterinary profession are facing today. The “Pregnancy in Practice” news story provides an opportunity to highlight not only the customized maternity benefits of the AVMA GHLIT disability and hospital indemnity policies, but also a positive aspect of AVMA membership, as these policies are available only to AVMA and SAVMA members.

If readers would like to learn more about customized insurance plans offered by the AVMA GHLIT, please contact us at www.avmaghlit.org or (800) 621-6360.

Libby Wallace
CEO
AVMA GHLIT

1. Burns K. Pregnancy in practice. *J Am Vet Med Assoc* 2015;246:366–371.

Texas A&M University's new roads into one health

Ferguson et al¹ raise an excellent point in their recent letter to the editor calling for an expansion of the idea of one health. When the Texas A&M University One Health program was established, we saw a need to build on the definition of one health given in the report of the AVMA's One Health Initiative Task Force,² and defined one health as "the collaborative effort of multiple disciplines working locally, nationally, and globally to attain sustainable optimal health for the ecosystem. It is a cultural and behavioral concept with socioeconomic elements and impact."³ For this definition, the ecosystem is defined as the "biological community of living organisms (humans, animals, plants and microbes) and their physical environment interacting as a system."

To develop the one health vision at Texas A&M University, the College of Veterinary Medicine and Biomedical Sciences under the leadership of Dean Eleanor Green and the College of Medicine, then under the leadership of Dean T. Samuel Shomaker, created a university-wide one health program. Soon afterward, Texas A&M University identified one health as one of its grand challenges. To steer the one health initiative, a One Health Campus Council was formed with participation from all Texas A&M University schools and colleges; the council serves as an advisory body that promotes transdisciplinary one health research, education, and outreach programs.

In 2014, the university-wide one health program identified four major themes and invited faculty from across the university to form interdisciplinary collaborative teams and submit transformative research projects. Of 23 project proposal submissions, 4 were selected for funding by the Texas A&M University Vice President for Research.

The Texas A&M University One Health student programs include teams of individuals from diverse disciplines working in Nicaragua, participation in exchange programs between our institution and others (eg, the University of California-Davis and University of

Florida), an undergraduate learning community, and learning opportunities with one health professionals in governmental agencies in Washington, DC (eg, the FDA Center for Veterinary Medicine and USDA National Institute of Food and Agriculture).

Texas A&M University students have established a Student One Health Association that is open to all Texas A&M University undergraduate, graduate, and professional students. The association includes individuals from multiple disciplines and applies one health concepts to societal issues.

Our programs in developing and developed countries continue to build strategic partnerships with international and regional organizations in one health research, education, and outreach. These programs foster skills such as cross-cultural competency, governance, economics, and sustainability.⁴

The Texas A&M University One Health program invites those who share a common vision, who are ready to attain sustainable optimal health for the ecosystem, and who want to create high-impact research, education, and outreach opportunities to please contact us.³

Rosina C. Krecek, PhD, MAP, MBA
Interim Assistant Dean of One Health
Office of the Dean
Visiting Professor, Department of
Veterinary Pathobiology
College of Veterinary Medicine and
Biomedical Sciences
Texas A&M University
College Station, Tex

Mike Chaddock, DVM
Associate Dean for Administration
College of Veterinary Medicine
Michigan State University
East Lansing, Mich

Merrideth Holub, MS
One Health Program Coordinator
Office of the Dean
College of Veterinary Medicine and
Biomedical Sciences
Texas A&M University
College Station, Tex

Ruth L. Bush, MD, JD, MPH
Vice Dean for Academic
Affairs and Vice Dean
Bryan/College Station Campus
Texas A&M Health Science Center
College of Medicine

Texas A&M University
College Station, Tex

Seth J. Sullivan, MD, MPH
Infectious Disease Consultant
Baylor Scott and White Health
Clinical Assistant Professor
of Medicine
Health Science Center
College of Medicine
Texas A&M University
College Station, Tex

Eleanor M. Green, DVM
The Carl B. King Dean
of Veterinary Medicine
Office of the Dean
College of Veterinary Medicine and
Biomedical Sciences
Texas A&M University
College Station, Tex

1. Ferguson J, Galligan D, Marshak R, et al. Expanding the idea of one health (lett). *J Am Vet Med Assoc* 2015;246:403.
2. One health: a new professional imperative. One Health Initiative Task Force: Final Report July 15, 2008. Available at: www.avma.org/KB/Resources/Reports/Documents/onehealth_final.pdf. Accessed Feb 23, 2015.
3. Texas A&M University. One health. Available at: onehealth.tamu.edu. Accessed Feb 23, 2015.
4. Chaddock M. Academic veterinary medicine and one health education: it is more than clinical applications. *J Vet Med Educ* 2012;39:241-246.

Behavior difficult to reconcile with theories of rational economic decision making

I found the article "Estimating the financial return on a veterinary education"¹ to be very interesting. Given the complexity of human behavior, attempting to quantify the utility realized by obtaining a veterinary education is extremely challenging. Toward the end of the article, the authors pose several excellent questions, the answers to which might help explain why, given the low estimated return on investment for a veterinary degree, we have not seen a substantial decrease in the number of veterinary college applicants.

The authors rightly note that the utility of consuming a good or service (in this case, obtaining a veterinary education) comprises both tangible and intangible ben-

efits. Together, these determine the relative price elasticity of demand, which is a mathematical indicator of the change in the quantity of a good or service demanded in response to a change in price. If the ratio between the decrease in demand for a good or service in response to an increase in price (in absolute values) is > 1 , then the demand is said to be elastic, whereas the demand is said to be inelastic when price increases do not result in equivalent decreases in demand. In this regard, the demand for a veterinary education appears to be highly inelastic, given that the rising cost of obtaining a veterinary degree has not substantially depressed demand. Because applicants could obtain the same tangible benefits (ie, income) from other occupations as they could from obtaining a veterinary degree, the primary cause of the inelasticity in the demand for a veterinary education must be found in the intangible benefits, for which there are no perceived substitutes.

When interviewing applicants for admission to the Louisiana State University School of Veterinary Medicine, I often ask them whether they know how much it will cost to attend veterinary school, what they might expect as a starting salary, and what their debt-to-income ratio will be. Frequently, the answer is, "I don't care, I'll do whatever it takes, I just want to be a veterinarian." This answer is revealing and suggests that many applicants pursue a career in veterinary medicine out of a passion for animals and science, rather than as a result of a rational assessment of relative returns on investment. In addition, it suggests that many applicants desire the perceived benefit of simply being a veterinarian, likely owing to the overall high esteem with which veterinarians are held by society. I suspect that the intangible benefits of a veterinary degree are so great that they will continue to overpower the low or even negative tangible benefits well into the future. The question, of course, is at what point will the tangible benefits become

so negative that they outweigh the intangible benefits? Thus far, the inflection point is nowhere in sight.

David G. Baker, DVM, PhD, MPA
Paula and Milton W. Shepard
Professor of Laboratory
Animal Medicine
Director, Division of Laboratory
Animal Medicine
School of Veterinary Medicine
Louisiana State University
Baton Rouge, La

1. Knippenberg R, Dicks MR, Bain B, et al. Estimating the financial return on a veterinary education. *J Am Vet Med Assoc* 2015;246:422–424.

The authors respond:

The authors thank Dr. Baker for his comments and agree up to a point. However, the difference between knowing what the numbers are and knowing what they mean may be quite substantial. Even for students who are aware of mean debt at graduation and mean starting income, several factors may influence how that knowledge affects their decision process. First, many of the individuals who attend veterinary college and other professional schools did not get there by being average and thus may not believe that they will find themselves with the typical debt-to-income ratio. Second, the decision to attend veterinary college is not made in isolation. Applicants are likely well-aware of the growing debt problems faced by all professionals, not just veterinarians, which may change their impression of what amount of debt is considered acceptable. These are important considerations for which we currently have few data.

We do have evidence of a cycle in the number of applicants. Over 12- to 15-year periods, the number of applicants has cycled between approximately 4,000 and 7,000. We have yet to determine the factors that are responsible for this variation, mostly as a result of the lack of historical data.

Finally, the stress induced by a high debt-to-income ratio likely has a major impact on veterinarians' mental health and should be inves-

tigated. There is little doubt, as Dr. Baker suggests, that the passion for animals is substantial among veterinarians. The real question is how long this passion will sustain them in practice.

Ross Knippenberg, PhD
Michael R. Dicks, PhD
Bridgette Bain, PhD
Economics Division
AVMA
Schaumburg, Ill

Michael Dow, BS
College of Veterinary Medicine
University of Illinois
Urbana, Ill

Bring in the cat

The late ecologist Garrett Hardin once observed¹ that misguided altruism can be our undoing. In this vein, I believe that it is misguided altruism that is driving not only trap-neuter-vaccinate-return programs for feral cats but also the newly developed return-to-field programs under which unadoptable feral cats that have been admitted to a shelter are neutered and returned to the location where they were trapped.² The impact of feral cats on wildlife is substantial, and feral cats can be reservoirs for the agent of toxoplasmosis, a potentially devastating zoonotic disease that can affect not only humans but also terrestrial and aquatic wildlife, farmed animals, and zoo animals.

Domestic cats do not have an ecological niche outside the home, and for their own and the greater good, domestic cats should be maintained indoors. This needs to be enforced through public education and appropriate legislation and is consistent with the fact that we no longer allow dogs to roam free in our neighborhoods.

Michael W. Fox, BVetMed, PhD, DSc
Minneapolis, Minn

1. Hardin G. *The limits of altruism; an ecologist's view of survival*. Bloomington, Ind: Indiana University Press, 1977.
2. Million Cat Challenge. Return-to-field. Available at: www.millioncatchallenge.org/resources/return-to-field. Accessed Feb 17, 2015.