Training Veterinarians for Working Equid Care
The New Equitarians

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Equine practitioners are making a difference, one working equid at a time, through education and collaboration. Author’s address: Massachusetts Equine Clinic, 76 Locust Street, Uxbridge, MA 01569-2203 (Merriam); e-mail: jgmerriam@massequine.com. *Corresponding and presenting author. © 2012 AAEP.

1. Introduction
Despite the continued growth of our profession, veterinary care for the poorest working animals of the world is inaccessible to most of them. The disparity of availability is a function of many factors including government indifference, lack of information, economic disparity, and the fact that most veterinarians are obligated to their own practices, families, and local economies. Yet, they are uniformly altruistic and supportive of the provision of care for working equids. Connecting altruism with such needs and translating this into actual work in areas that need it is a problem that we in the profession must face. It has been apparent that changes in government agricultural policies to reflect the use of equids in traction, transportation, and food distribution are slowly coming about. In many areas, the limiting factors are disease, lameness, and malnutrition. Having appropriate veterinary care, consultation, and training is a way to alleviate this shortage. A training program for seasoned veterinarians to allow them to fill in short-term locums or projects is beginning to show promise as a way to approach this disparity. The advent of the “Equitarian Initiative” and the coining of a new descriptive word to describe it will be discussed. This paper will discuss an ongoing training project supported by a seven-organization collaborative and its ramifications for increasing availability of well-trained equine veterinarians for both short- and long-term projects.

Getting Started
Deciding to begin an Equitarian Project is often the easy part of taking the first steps to see results of one’s altruistic inclinations. Equine veterinarians are routinely motivated by a desire to help that is often in conflict with the realities of making a living professionally and building a practice. We are among the last to be consulted in disaster situations and are overlooked in the charitable world as unimportant to the recovery of rural populations, yet we can appreciate the importance of working equids to the rural poor throughout the world. There are few professionals as well qualified as we to assess and treat these animals and, more importantly, to advocate for them as vital parts of most developing economies.
Taking the First Steps
Where do we, as equine veterinarians, go from here? What specifically can we do to help the working horses of the world? How can one begin a career track that allows one to expand one’s reach and still pay a mortgage? What sorts of jobs are available? Are there short-term projects one can do? How does one begin to develop a career path that will allow them to use their skills, either full- or part-time? Veterinarians are problem solvers, diagnosticians, incredibly hard working, and altruistic. We see through red tape, around and over obstacles, and cut to the core of problems. Many aid efforts are often misdirected, duplicated, underestimated, and underfunded. Many efforts are undertaken that, while sometimes heroic and possibly beneficial (de-worming and floating teeth on horses whose main problem is lack of food, lameness, etc.), are missing their mark. Reprioritization and redirection will often result from outside examination, consultation, or combining efforts of disparate groups. In the absence of directed outside influence by governmental bodies and an increasingly distracted public, it is up to private interests to step in, educate, and, in many cases, organize effective action.

Looking at the Success of a Small Project
Many a small project has begun as a result of vacation travel or tourism, where one sees first-hand animals being worked excessively to support families in need of any type of subsistence. My own “Project Samana” grew out of such an encounter and was fueled coincidentally by the need to expand our state Veterinary Medical Association (VMA) reach, both to the developing world and to young practitioners who wanted more of an “activist” organization. Twenty years later, it has changed lives, hearts, and the very health of our organization. The motivations for undertaking this sort of work can be complex, but when done under the auspices of a state VMA, it must reflect their values and direct its efforts toward the animals involved.

Preparing Yourself

Training for Field Work
As an ambulatory and hospital-based clinician, I was pretty sure I had seen everything, every possible situation. But the first castrations in Samana were pretty scary! Bumping into a strand of barbed wire deep inside a scared scrotum on a mule who (understandably) hated the idea of being roped down for sedation, was a shock. Once the surprise wore off and we got ourselves organized, it became easier. There is only so much preparation one can do to be ready. We have just finished the third Equitarian Workshop in Tlaxcala, Mexico, and I recommend it to any veterinarians contemplating a project in the developing world. The Equitarian Workshop addresses most of the questions I had no one to ask 20 years ago, such as cultural interactions, animal welfare, diseases, and local needs. Field surgeries, internal medicine, and dentistry are part of the curriculum.

Infectious diseases are only a small part of our work. Many governments are very careful about having outside vaccines brought in and will not issue permits for them. We vaccinate only for tetanus on our surgical cases, and even so have lost 2 of the 1000+ we have operated. The government has an expanding rabies program, but all of their other efforts are directed at dairy and pork production.

Logistics
Our efforts began in 1992, when, as President of the Massachusetts VMA (MVMA), I joined with two other members and initiated an exploratory visit to Samana, a remote peninsula in the Dominican Republic. Our contact there was a young woman who was a graduate veterinarian working part-time for the government on Brucellosis control and with her husband in a tourism enterprise. The locals could not support a private practice, and she expressed a need to begin an animal control effort for the small animals and some basic health care for the working equids. They were primarily used to pack coconuts out of the jungle, but there was a small tourism industry beginning with beach rides and waterfall treks. Few of these animals had body condition score (BCS) score above 3, and the tourists were too large for many of them. The transition from an agrarian economy was beginning, but it was painful. On that trip, we spayed and neutered about 80 small animals and de-wormed about 15 horses. More importantly, we made contact with several of the important horse owners in the area and talked about their needs. We also began planning to go to the cascada in El Limon, several hours into the hills on seasonably accessible roads, to see the “very thin” horses there. The waterfalls were a tourist attraction but only accessible to really intrepid hikers. The main use for the equids was still packing coconuts, but if a tourist arrived and wanted to rent one, they were then made to do double duty. It took two more trips before we actually made it up there because of the roads. When we did, it was overwhelming. Groups of 50 to 100 smallish horses and mules (Fig. 1) were waiting for us as we administered ivermectin and listened to the various complaints addressing as many of them as we could. The demand for services was there, we just had to figure out the logistics of treating them. However, we still needed community coordination and support. The next year, we began a partnership with the local office of a German eco-tourism group that had formed a cooperative of horse owners and agents to provide a higher level of tourist services and local natural preservation.

Over the next 5 years, we were able to catalog each animal, its BCS, saddle sores, and other problems. We became the arbiters of welfare, and if we said an animal was too “flaca” (thin) to work or had...
a saddle sore, the owner was given the tools to remedy the condition and was re-inspected at 30 days by one of the agents before it was allowed back to work. As our work increased, so did the effort of bringing in medications. We hoarded as much as my practice could afford, sent out letters to clients for donations, and began the process of forming a charitable foundation within MVMA. That took 2 years, and, once formed, has been a source of support for this project as well as many small animal projects both in the state and in our other international projects.

We have had considerable difficulty sourcing medications in-country, both because of price and availability. This situation is getting better, and we now get most of our ivermectin and antibiotics there. We no longer bring in all of our controlled substances, needles and syringes, and surgical supplies. Locally available ketamine is of variable quality and more expensive than in the United States but is used.

Services Provided

Parasite Control
The most requested service for the working equids is parasite control. We de-worm every animal we touch. This year, we are instituting a fecal eggs per gram (EPG) survey as a follow-up to one done on a small scale 10 years ago. Our “regulars” are now being treated at least twice yearly. Ticks are also a huge problem, with horses most affected and burros the least affected.

Surgery
Castration is in high demand because it makes for a more tractable, tourist-friendly animal, not really a necessity for animals only used to pack produce. In the early days, we found a high percentage of mules to be extremely hard to handle, but after introducing some of our local agents to imprinting techniques, many of the mules are more tractable. Because we are there twice a year, locals no longer depend on brute strength to restrain the patients. We also have put some of the traveling “brujas” (witches) out of business. We use general anesthesia and a castration tool on all cases now. Hernias, tumor removals, wound resections, and many other procedures are routinely done. There are numerous saddle- or equipment-related sores and infections that require resection and debridement.

Initial Plans
The single most important factor in our success has been that we have been there at the request of the local veterinarian and have worked for her ever since. She was knowledgeable but had received very little clinical training and had never spayed a dog or even given an injection to a horse. However, she had a vision that the animals needed better care and that it could start with her.

Our small team crowded into the outboard motor shop that her husband owned, set up a couple of tables, and started to work. She had been driving a car with speakers mounted on it through the barrios, announcing our presence, and it did not take long to have a line waiting outside the door. We had only one spay pack, a few bottles of premixed anesthetic, and a lot of ivermectin.

Because she was a government veterinarian, she had sent a letter to the authorities in Puerto Plata to let us through customs. Our arrival and transportation of medications were never issues. We had several occasions to send such a letter if we were carrying a lot of medications, but never once did it seem to make it to the level of inspectors. Nonetheless, there is an absolute need to abide by local regulations.

How Will You Measure Success?
There are often no good ways to measure success, at least initially. A noticeable decrease in puppy production is not often visible early on. A measurable increase in BCS can also be elusive. In the early years, often the best measure of success is seen by the locals, for example, equids are eating better, have more energy, and show modest weight gain and fewer saddle sores.

Another measure of success is in the type of cases you will see. Now, it is not unusual to have horses walked several days to one of our sites for surgery. With Internet access now available to our contacts, it is not unusual to get a picture of a laceration, lesion, or tumor for a follow-up consultation.

The formation of an association of horse owners has helped to increase the local income, the care level of the animals, and the beginning of a routine farrier presence. We sponsored a farrier training session and started to send tools and supplies.

Step 1: Acquire Skills
Clinical skills and expertise get better with practice and field training. Organizations working in developing countries need skilled, practiced hands to perform and teach the required procedures (Fig. 2).
show barn or racetrack, just exposed to horses with strangles or Equine Herpes Virus, is excellent practice for looking at and managing disease outbreaks everywhere. Searching for a bleeder, deep in a wound on a recalcitrant horse, teaches patience, dexterity, and innovation. Never underestimate the value of your acquired skills.

Step 2: Do Your Homework
The web is a resource without parallel. One’s vision can only be enhanced by “visiting” sites and cultures via the Internet. There is no part of the globe that cannot be explored. What are your talents, and where do you think they would be best used? A personal inventory is the first step. What is your motivation? “Saving the world” doesn’t count. What are your skills (language, surgery, lameness, infectious diseases, nutrition)? Do you have time preferences? Can you give a week, a month, or a year? What are your financial resources? Can you contribute toward expenses, or do you need assistance?

Step 3: Make a Plan
Life comes at you in many interesting ways. A long-term career in practice or at a university hospital can morph into second careers in places as far-flung as Mongolia, Latin America, or the deepest parts of the rural American West. In most cases, we do not actually plan for it, but we grow into it. Advanced surgical training can be applied and appreciated anywhere in the world. Many community-based groups and service organizations have national or international reach. If you join them, make sure that they also have interests and goals similar to your own. Most do not have any idea what you do or what you can offer. Pulling human teeth or de-worming children in a remote jungle village may not be what you had in mind. Many groups are ideologically directed, with services being only a “hook” to gain access.

Common traits of a successful project are as follows:

- A local initiative: work cooperatively at the invitation of the local community.
- Serve a predefined area to track a measurable impact.
- Return regularly to build trust.
- Have a clear and defined focus, “Medicine is the Mission and the Gift.”

The success of any equitarian program is dependent on the following:

- Identifying the needs of a specific community
- Meeting local needs with quality, culturally relevant teaching materials
- Taking time to establish trusting relationships with veterinarians and owners
- Following through with consistent teaching and mentoring

The Equitarian Workshop
Most of one’s professional education is problem-based. Looking for solutions is only effective after a diagnosis has been made. Veterinarians with clinical and practical experience are usually world-class problem solvers. There are many short-time postings and projects that allow such transitions and will give satisfaction and an initiation into a life that may or may not work out as expected but will nonetheless be rewarding. With this in mind, the authors developed a week-long Equitarian Workshop in Vera Cruz, Mexico, to provide clinical experience and training in real-world communities that depend entirely on working equids (Fig. 3). The curriculum was designed to allow direct aid and training under the supervision of experienced clinicians while reflecting on the welfare, cultures, customs, topography, and needs of the host communities. Each day’s work was preceded by several hours of facilitated discussion in a classroom setting. This was followed by hands-on sessions at the host communities where animals were triaged, referred to...
appropriate specialist areas, and treated. The areas involved were welfare, dentistry, medicine, surgery, farriery, saddlery, lameness, and pathology (biopsy, fecals, and hematology). Participating veterinarians, 28 from North America and 28 from Mexico, rotated through each venue in half-day segments. Instruction was done by bilingual teams who interacted with the owners and led case discussions and training. Many were faculty members from Universidad Nacional Autónoma de México (UNAM); others were practicing specialists in various areas. Post-workshop surveys and tracking have shown a 95% satisfaction rate with the program and the spawning or expansion of many new or existing projects.

Dentistry
Very few patients have ever had dental care. They live on local forage, receive very few supplements, and must fend for themselves in whatever environment they live. The owners realize the need for care, and the dental station is always the busiest. We utilize the community soccer goals as an overhead support and routinely have five or six cases going at once. We use and train with both power equipment and hand floats, teaching techniques that can be utilized by local practitioners after we leave. The range of pathologies seen is immense: fractured teeth with impactions, hooks, ramps, and abscesses. Sedation is used extensively, but many can be managed with only head restraint. The training is done by experienced clinicians on both introductory and advanced levels.

Internal Medicine
There are many animals presented with a broad range of complaints that are related to weight loss, dyspnea, work intolerance, ocular infections, and a broad range of general illness. Workups are done with the limited labs available, but bronchoalveolar lavages, skin scrapings, and cytology are done on-site. Ultrasound imaging is sometimes also available.

Surgical Services
The need for basic services is real. Routine surgical services include castration, saddle sore resection (Fig. 4), and tumor removals. Hernias, cryptorchids, and miscellaneous dental conditions account for the balance. Maintaining standards of asepsis, preparation, and anesthesia safety are critical parts of the learning process.

Podiatry
A team of farriers in training and their trainers accompany the workshop. Participants spend time working with and practicing routine trims and treatment of many pathologies.

Saddling and Harness Fit
The World Horse Welfare group provides ongoing training and repair services to the animals presented.

Welfare Assessments and Community Partnership
Training owners and caregivers is a critical part of our training. We have developed posters, pamphlets, and participatory games for children and families (Fig. 5). Animals are also assessed at intake for BCS, equipment sores, foot and dental status, and general health. Fecals are collected, and external parasites are treated. Animals are then referred for appropriate care at the various stations.

Jobs Versus Real Work
There are few jobs working with any of the various agencies and organizations that we will discuss that are suitable for recent graduates with limited experience. There are many opportunities for seasoned, skilled professionals with appropriate background and interests. On the international level, most agencies are run by professional bureaucrats who have worked their way up to a position of authority and are in no way ready to cede it to someone with only clinical skills. However, once one has proven their mettle, it is possible to achieve a successful
career path as a staff veterinarian in a foundation-sponsored hospital or as a consultant to governments and Non-Government Organizations (NGO) such as the Donkey Sanctuary and World Horse Welfare. The armed services have a constant need for career path veterinarians in health sciences. Disaster relief agencies and the United Nations have similar needs.

Volunteer or “Voluntourist”?
Starting on a career path in equitarian work certainly will involve stepping into volunteer situations. There are many possibilities available, and the Internet is the best place to begin searching. Veterinary students have access to a stunning array of such choices. Seasoned practitioners may be inclined to participate in short-term, ongoing projects that also involve cross-cultural and touring aspects rather than direct participation. These are also excellent venues to test one's adaptability to long-term situations.

Goals and Outcomes
- New graduates learn adaptability, restraint techniques.
- Work is done under primitive conditions.
- Cultural interactions are invaluable.
- Problem-based learning is the order of the day.

Needs for the Future
- Scholarships for new graduates.
- Supplies and support from our partners.
- Support for other organizations so that they can do the same.
- Educators to help owners become self-reliant caretakers of their animals.

Decide on the Core Value of “Animal Versus Human Welfare”
It is difficult to improve animal welfare if it does not improve human welfare. One cannot improve human welfare at the expense of or without improvement of animal welfare.  

If Not Now, When? If Not Us, Who?
The use of working equids is on the increase worldwide, in the face of rising petroleum costs and decreasing agricultural income. Refugees, due to wars or famine, often have their animals confiscated as they enter camps. In many cases, the animal was their only means of livelihood and transport (Fig. 6). Aid agencies are focused only on human health, not on the working animals. Thus, their loss is not only inhumane, it makes recovery nearly impossible. Reconnecting people with working equids would be the most appropriate, cost-effective solution to rebuilding lives and the communities.

2. Conclusion
The logistics of starting and maintaining a small project are quite accessible to most veterinary associations. Setting up a charitable foundation is also something done more easily at that level. The key to success is commitment of more than one person and a broader array of resources. Long-term commitment is critical.

Suggested Reading

Footnotes
*Ivomec, ivermectin liquid, 1.5% Merial, Duluth, GA 30096–4640.
*Ketamine, ketamine HCL, Fort Dodge, IA 50501.
*Henderson Castrating Tool, Stone Manufacturing and Supply Co, Kansas, City, MO 64127.
*Kay G. Personal communication, 2011.
*Knottenbelt D. Personal communication, 2010.