

# nourishingnepal

BRIDGING HUMAN HEALTH AND ANIMAL MEDICINE

*2009 Student Inspiration Award winners Laurel Redding and Alison Barnstable put their award-winning proposal into action by teaming with Heifer International*

BY LAUREL REDDING, V'11

**O**n Heifer's suggestion, we begin our work in Nepal – a small country sandwiched between India and China. Heifer has been extremely successful in working with Nepalese communities, yet there is still a great deal of poverty and need across the country. Two vet students were chosen to accompany me to Nepal for four weeks this summer.

There are many ways veterinarians (and vet students) can contribute to improving health and productivity of livestock on small farms. In addition to traditional methods (vaccinating, de-worming, basic physical exams), vets can act in an advisory capacity to farmers in matters of animal husbandry, nutrition, welfare and productivity.

By working with Nepali veterinarians, we are working to offer animal nutritional counseling to farmers and community leaders; as such, our trip this summer consisted, in part, of a scouting-out of the farming and livestock practices of Nepal. We visited and surveyed a total of 85 farms in rural villages of Nepal's Kaski district, obtaining information on animal health, nutrition, husbandry and reproduction, as well as an assessment of some of the basic forages and concentrates available for Nepalese livestock. The goal is to use this information to help farmers develop optimal nutrition and husbandry plans for their animals using locally available resources.

Along with research and medicine, veterinarians can provide the asset of education through the training of local paraprofessionals. These paraprofessionals ("paravets") can provide very basic animal health care to village livestock.

Like most other countries, Nepal is facing a serious shortage of large animal veterinarians, especially in some of the more remote parts of the country. Nepal has two agricultural schools that graduate 60 vets per year. However, around 40 percent of those graduating vets leave Nepal to work or study abroad and a large percentage of those that stay in Nepal take government jobs; very few Nepali vets work in rural areas.

To address this dearth of veterinarians, paraprofessionals are being trained in basic animal health. Not only does this solution address the lack of animal health resources, it also provides tangible benefits to the community. Training of paravets (or Village Animal Health Workers (VAHWs)) results in community leaders who are familiar with and invested in their communities. These VAHWs not only improve the health of village animals, but they pass on their knowledge to teach farmers about improved animal care. VAHWs become respected sources of knowledge and leadership within a village with access to networks of government and health professionals. Indeed, Heifer's work of community-building relies on the presence of such community leaders.

While in Nepal, we collaborated with the Animal Health Training and Consultancy Services (AHTCS), a partner organization to Heifer that trains VAHWs. AHTCS organizes five-week-long training sessions for villagers who want to learn about basic animal health care.



Veterinarians have the unique ability to fight world hunger by promoting the health and productivity of small farms. By creating an alliance between Penn Veterinary students and the non-profit organization Heifer International ([www.heifer.org](http://www.heifer.org)), two Penn Vet students set up a project that aims to inspire the veterinary profession into becoming the bridge between human health and prosperity and animal medicine. The effort was the award-winning proposal of Laurel Redding and Alison Barnstable, both V'11, who received one of the 2009 Student Inspiration Awards for their project.

Laurel and Alison's project proposed a team effort with Heifer International, an organization that helps empower families and villages through community development and the gift of animals. Through the partnership, Laurel and Alison would enable other veterinary students to learn about the issues of the developing world and teach them how they can have a significant impact on animal health in developing communities where people depend on animals for their livelihood.

This summer, Laurel traveled with two Penn Vet classmates, Yoon Chay and Lauren Aldinger, both V'12, to Nepal to begin realizing the proposal she and Alison had begun. Here's her update from the field.



Part of our Student Inspiration Award funds went towards the training of 12 VAHWs from different parts of Nepal. We were also able to attend and participate in the training sessions that included a series of lectures taught by veterinarians and veterinary technicians. Subjects of the sessions ranged from anatomy to animal restraint, from drug administration to diagnosis of infectious diseases, from basic surgical techniques to design of animal housing. Participants also gained first-hand experience by seeing cases from neighboring villages that use mostly water buffalo, cattle and goats, which are the primary livestock found in Nepal.

Training of paraprofessionals is an important way for veterinarians to reach as many households and animals as possible. Just as one community started by Heifer can expand into many communities, training one VAHW can have a positive impact on a large number of animals and families in one village. The VAHWs have the potential to be a source of inspiration, motivating other villagers to learn new skills and to share those skills.

Our project involves supporting animal health training programs and contributing to it with both our knowledge of advanced veterinary medicine and understanding of the local conditions and resources of a developing country. By continuing our work with AHTCS and Heifer in Nepal, we plan to work with Nepali veterinarians and farmers on implementing solutions for improved animal productivity.

Nepal faces food shortages and currently imports a large percentage of its food, even though it is a nation where 66 percent of the population is involved in agriculture. The animals we surveyed on Nepali farms were, for the most part, very low producers. Cows produced an average of 1-2L of milk a day. (Holsteins in the US produce on average 50L of milk a day.) Water buffaloes produced an average of 3L. Goats, which are sold for meat, need increased body condition scores and larger numbers of offspring. These improvements can be reached by improved nutrition and reproduction.

As our world grows more and more interconnected, the role of veterinarians will become more globally focused. We hope that our project will be a successful model that can be used in other parts of the world. Short-term clinics and spay/neuter programs in developing countries are certainly one way that veterinarians can contribute to animal health care, but the effects may be short-lived. We hope that working with farmers to improve productivity and that training local townspeople in basic animal health will have more permanent effects.

We also expect that vet students who participate in the program will become more globally aware and acquire skills and knowledge that they can apply later on in their career.

However, we cannot do this task alone – it is only with collaborators like Heifer International and AHTCS who know the communities and country intimately, that we can have a passing chance at being successful. ♡

To learn more about Laurel's, Yoon's, Lauren's and Alison's work in Nepal, check out the blog that the three who traveled this summer kept: <http://nourishnepal.wordpress.com>. To become involved with the project, you can contact Laurel or Alison via email at [lredding@vet.upenn.edu](mailto:lredding@vet.upenn.edu) or [abarnsta@vet.upenn.edu](mailto:abarnsta@vet.upenn.edu), respectively.