Speaking Engagements at Animal Control / Animal Sheltering conferences in São Paulo, Brazil

By Barb Jones DVM

In July 2007, the UC Davis Koret Shelter Medicine program received an email from Dr. Luciana Gomes, a veterinarian with the State Secretary of Health of São Paulo, Brazil. She had found our website and was very interested in learning more about our program, because there are no similar programs at any Universities in Latin America. She asked if one of us could travel to São Paulo in October 2007, to speak at two conferences she was organizing: The **Second Forum on the Control of Dog and Cat Populations in the State of São Paulo** and the **First National Meeting of Animal Control Officers.** I was thrilled to accept the invitation! In addition, Elizabeth MacGregor, Development Manager for the Brasil office of the World Society for the Protection of Animals (WSPA) asked if I could also speak at a concurrent conference: a **Seminar on Shelter Management for member societies of WSPA.** I agreed to give a total of 5 lectures at the 3 conferences, on topics of the conference organizers' choosing, and immediately started preparing all the PowerPoint presentations!

The audience of the **Forum on the Control of Dog and Cat Populations in the State of São Paulo** consisted primarily of veterinarians and other health professionals who work in Zoonosis Control Centers (CCZs) in the State of São Paulo. The primary mission of the CCZs is protection of public health through zoonosis control, and they are comprised of multiple laboratories which conduct surveillance programs focused on reservoirs, vectors and the environment. For example, one lab regularly examines soil samples from public parks for parasites such *Toxocara, Ancylostoma, Diplydium, and Taenia.* Other labs run Leishmaniasis serology on dogs, and perform necropsies on dogs suspected of having rabies or Leishmaniasis. In the 1970's, in order to control canine rabies, municipalities began collecting street dogs and holding them in CCZs. In recent years, however, canine rabies has been well controlled in Brazil, so the role of CCZs as municipal animal holding facilities is changing. Concurrently, São Paulo is undergoing a paradigm shift in their approach to animal control, thanks in large part to Dr. Gomes and other veterinarians she works with. In 2006, the State Secretary of Health published Guidelines for a Population Control Program for Dogs and Cats, including recommendations for safe and humane animal handling, programs for reproduction control, identification and registration of animals, education on responsible pet ownership, and preventive health programs such as vaccination and parasite control. However, the implementation of these guidelines by the CCZs is still in its infancy.

CCZ do conduct widespread community vaccination programs for dogs, but these only include rabies vaccination; vaccinations for canine distemper and parvo are not offered. Some CCZs offer free sterilization programs for dogs and cats, but many in Brazil reportedly still favor euthanasia over sterilization for population control. Some government officials are also apparently hesitant to promote adoption of animals from the CCZs because they are worried about introducing zoonotic disease into adoptive families. It is estimated that the average life span of dogs in Brazil is 2-3 years. This is considered a significant problem, since a younger canine population is more susceptible to rabies and other zoonotic diseases, such as Leishmaniasis.

The lectures I gave for this conference included "Canine and Feline Population Control in the US", "Prevention of Infectious and Parasitic Diseases in Shelter Dogs and Cats" and "Adoption Programs." But before I summarize the messages I delivered in these lectures, let me give you more background about two CCZs that I visited: the CCZ for the city of São Paulo, and the CCZ in Mogi das Cruzes. São Paulo is the most populous city in the Southern Hemisphere; the metropolitan area has a population of almost 20 million people. Mogi daz Cruzes is a town of about 400,000 about 40 km east of São Paulo. Several veterinarians I met emphasized that these two CCZs have the best conditions in all Brazil.

Dogs collected in the streets are housed in group kennels. At the two CCZs I visited, group sizes were generally not greater than 6 dogs. Males and females are consistently separated, but sick and healthy animals are not. Dogs are not vaccinated or treated for parasites at intake. In general, Animal Control Officers (ACOs) only capture and bring in dogs that are sick, injured, or aggressive. Dogs that are not sick, injured, or aggressive are largely left to roam as relatively well-accepted "community dogs." CCZs don't usually accept owner surrendered pets, unless the animal is sick, injured or aggressive, and illness seems to be the most common reason for surrender. If owners give some other reason for surrender, they are often turned away. Not surprisingly, this sometimes results in people lying about why they are bringing dogs in.

Since dogs entering the CCZs are predominantly sick, injured or aggressive, the vast majority are euthanized after a 3-11 day holding period. However, some, especially those that are young, friendly, and apparently healthy, are selected for possible adoption. At the São Paulo CCZ, dogs selected for adoption are vaccinated (rabies & a 7-way vaccine including corona and lepto in addition to DHPP), treated for internal & external parasites, neutered, and moved to individual adoption kennels. Apparently, the 7-way vaccine given is one of only 2 canine parvo-distemper vaccines available in Brazil, and costs approximately $7 per dose! Most CCZs outside of São Paulo can only afford to give a rabies vaccine, and do not sterilize or treat animals for parasites. Despite the presence of Leishmania serology labs in the CCZs, most dogs selected for adoption are not tested for Leishmaniasis.

Group housed dogs at a zoonosis control center in Brazil

Canine distemper (called Cinomosis in Portuguese) and parvo are common in the Brazilian canine population, and even more common in dogs who enter the CCZs. So, while dogs selected for adoption appear healthy at the time, most have been exposed to parvo or distemper in the CCZ (before they were vaccinated), and many become sick either later in their shelter stay or after adoption. Indeed, post-adoption surveys have found that many puppies die shortly after adoption. Despite the presence of veterinary pathology labs at the

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CCZs, necropsies are not performed on dogs thought to be infected with species-specific diseases such as parvo or distemper in the CCZ.

The CCZs do handle cats as well as dogs; in fact, the CCZs had more cats than they did dogs, and more cats than dogs are sterilized through the CCZs' free sterilization programs. As in most US shelters, euthanasia rates are higher and adoption rates are lower for cats than for dogs. The CCZs tend to focus less on cats than dogs, possibly because cats are considered to present less of a zoonotic threat.

So, back to the lectures I delivered to the CCZ veterinarians at the conference… I humbly introduced the first lecture, "Canine and Feline Population Control in the US," as "a series of painful lessons learned, a history of mistakes with occasional successes, and a problem not yet solved!" I provided a history of animal control and sheltering, and an overview of types of shelters and their functions and activities. I presented historical and present trends in US shelter statistics, emphasizing the challenges that remain in accurate data collection. An important take-home message of this lecture was that shelter intake is a more important determinant of euthanasia rates than adoption rate. In the data I presented, intake and euthanasia rates show very similar trends, and varied by similar amounts, while adoption rates over the same periods tended to be much more stable.

In Figure 1 (based on data presented in *Nassar R, Talboy J, Moulton C. Animal Shelter Reporting Study 1990. Englewood, Colorado: American Humane Association, 1992*), note the very similar trends in intake (top line, pink) and euthanasia (middle line, yellow.) Both varied by about 10 million. In contrast, adoption numbers were much more stable – it only varied by about 2.5 million.

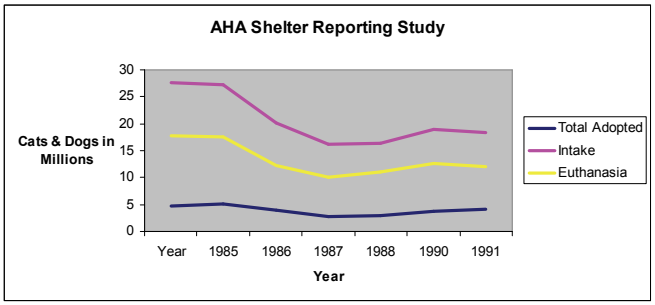

Figure 1

Figure 2 (based on data presented in *Washington state shelter statistics. Anthrozoos 1994;7:202*), shows both intake and euthanasia decreased by about 26,500, while adoptions only increased by 6,900. These trends suggest that efforts to reduce intake are more likely to significantly reduce euthanasia than efforts to increase adoptions. I urged my Brazilian audience to put more emphasis on preventing animals from becoming homeless and entering CCZs in the first place, rather than primarily reacting to animal homelessness through adoption efforts.

This lecture concluded with recommendations that Brazilian population animal control efforts should include reliable data collection on both the magnitude and specific causes of both shelter intake and euthanasia, because this is so important in defining the problem and for assessing efficacy of interventions. I also recommended that shelter data should generally include relative numbers rather than just absolute numbers or percentages. Numbers of animals entering or leaving shelters, or numbers of animals with certain outcomes, should be considered relative to human populations and/or total animal population at risk (e.g. number of animals entering shelter, or total dog or cat population.) This is particularly important when comparing figures for 2 different communities or numbers from the same community over time. For example, an 60% euthanasia rate in a shelter with 50,000 annual intakes results in a much larger number of animals dying than 85% euthanasia rate in a shelter with an annual intake of only 1000.

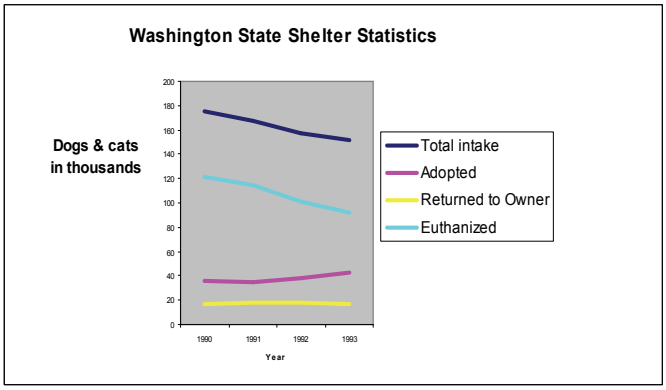

Figure 2

I started my second lecture, "Prevention of Infectious and Parasitic Diseases in Shelter Dogs and Cats," with a disclaimer that I could not explain how to prevent every disease in their shelters, but I could provide some general guidelines that could help protect the health and welfare of shelter animals. I emphasized the importance of selecting likely adoption candidates for adoption as early as possible, preferably at the time of shelter intake, so that preventive health measures for this sub-population could be immediately initiated, including intake examination, vaccination, parasite treatment, individual housing, segregation from sick animals, and daily observations. Because of the focus on Brazilian CCZs on zoonotic risks, I reminded the audience that measures to reduce the risk and transmission of species-specific canine & feline diseases in shelters will also serve to reduce the risk of zoonotic disease transmission, both between animals & from animals to humans. I also urged them to include vaccination for parvo and canine distemper, as well as treatment for zoonotic intestinal parasites such as Toxocara and Ancyclostoma, in community vaccination programs, which currently only include rabies. Since many animals entering CCZs are sick, and therefore probably bringing parvo and distemper into the shelter, vaccination in the community will be most effective in protecting shelter animal health. In addition, immunization against species-specific diseases that cause immunosuppression and high mortality, such as parvo and distemper, will also improve overall health and increase the life span of dogs in the community, resulting in decreased susceptibility to zoonotic diseases such as Leishmaniasis and rabies.

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For my last lecture for this conference, on Adoption Programs, I felt impelled to begin by acknowledging the fact that successful adoption of all animals entering shelters in Brazil is not possible at this time. However, it's important to point out, here, significant differences between the Brazilian CCZs I visited and many shelters in the U.S. Since intake is limited (generally to animals that are injured, sick, or aggressive,) the CCZs were not crowded. The Brazilian audience had difficulty understanding why US shelters accept so many owner-surrendered animals – they felt that we were enabling animal abandonment. The concept of "euthanasia for space" is unfamiliar in the CCZs.

This lecture continued with a reiteration of an important point: that in order to maximize adoption success, the subpopulation of shelter animals that are likely adoption candidates must be carefully selected, and steps to protect the health of this subset of shelter animals must be initiated immediately upon arrival at the CCZ. Serious diseases such as parvo and distemper in the CCZs are an important obstacle to successful adoption, especially since many puppies die of illness after adoption. Because of this, the CCZs are unlikely to be considered by the public as a good place to adopt a pet. However, since I had covered protection of shelter animal health in a previous lecture, I focused the rest of this lecture on other factors related to adoption, such as pre-adoption diagnostic testing, behavior assessment, assessment of overall "adoptability," adoption inventory and pre-adoption sterilization. I even ventured into some pretty non-veterinary areas, like adoption marketing and customer service! I presented data on where people primarily get pets in the U.S. (breeders, friends/relatives, newspapers, and shelters for dogs; friends/relatives, found as stray, offspring of own pet and shelters for cats.) I also presented research evaluating possible factors that influence choices of adopters (friendliness, playfulness, sterilization status, reason for shelter entry, breed, age, sex, color, health status, and adoption environment) and adoption success (adopters who have behavior knowledge and/or training or previous pet ownership experience, acceptable behavior of adopted pet, absence of children in adoptive home, and appropriate owner expectations.) I urged those involved in Brazilian animal sheltering to collect and evaluate their own data to see what applies in their country.

Again, I urged the audience to keep the potential of adoption as an approach to reduce euthanasia in perspective. I explained that in the U.S., it seems that very few communities are able to maintain an average per capita adoption rate greater than 6-10 pets adopted per thousand people per year. This estimate is based on data from several sources, including California shelter data from the California Department of Health Services, and 2003 Michigan shelter data (*Bartlett PC, Bartlett A, Walshaw S, et al. Rates of euthanasia and adoption for dogs and cats in Michigan animal shelters. Journ. Appl. Anim. Welf. Sci. 2005;8:97-104.*) Even communities with the most well-designed, well-funded, and well-maintained marketing initiatives, do not tend to place more adopted pets than about 7-10 per thousand people per year. This means that increased adoptions can't be solely relied upon to decrease shelter euthanasia. It will be important for Brazil to maintain an emphasis on preventing animal homelessness, rather than reacting to it.

Dr. Barb Jones (center) with conference organizers Luciana Gomes (left) and Adriana Vieira (right)

For the next issue of this newsletter, I'll write about the other two conferences at which I spoke during my visit to Brazil, the First National Meeting of Animal Control Officers and the Seminar on Shelter Management for member societies of WSPA, as well as a large, private no-kill shelter in São Paulo that I visited (UIPA, União Internacional Protetora dos Animais).

When It Looks Infectious But Its Not Quaternary Ammonium Toxicosis

Catherine Mullin, VMD, MS

Many shelters report ongoing problems with upper respiratory infections in their cats. Approximately 80-90% of cases are thoughts to be caused by feline calicivirus (FCV) and/or feline herpesvirus (FHV). Feline calicivirus (FCV) is a common pathogen that causes a variety of clinical signs, including fever, oral ulceration and nasal and ocular discharge. FCV infection is common even in cats that appear healthy. Up to 25% of asymptomatic cats from multiple cat environments, such as shelters and catteries, will be shedding FCV from the oral cavity at any given time. Even among single pet cats in home up to 8% can be shedding this virus. In fact, as many as half of all upper respiratory infections are caused by FCV. Although infection with FCV is not usually fatal, many shelters find it necessary to euthanize cats with signs of upper respiratory infection to protect the rest of the feline population. In addition, there have been outbreaks of a more virulent form of FCV, with distinctive clinical signs that include facial edema, ulcerative dermatitis and death.

FCV causes extremely variable signs. Some strains cause no signs at all, while others, such as more virulent strains, can cause signs of systemic illness. Other manifestations of FCV include: mild upper respiratory infection without oral ulceration (indistinguishable from URI due to herpesviral infection); limping with or without URI signs; mild to very severe

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