

# Addressing the Problem of Pet Overpopulation: The Experience of New Hanover County Animal Control Services

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Pet overpopulation is a problem for humans not only because of the increased rabies exposure risk but also because it puts a strain on animal control agencies, which must care for, house, and often euthanize the unwanted animals. New Hanover County, North Carolina, Animal Control Services saw the need to control this problem and developed a plan to diminish the number of unwanted companion animals in its community. With the help of training through the UNC Management Academy for Public Health, they created a successful business plan to build an on-site spay/neuter facility. The facility began operations in 2004. As of January 31, 2006, a total of 1,108 surgeries had been completed in the new facility, with no added cost to taxpayers. The facility has been a success for Animal Control Services, the Health Department, and the community as a whole.

**KEY WORDS:** animal control, management development, public administration, public health, training

Pet overpopulation increases rabies exposure risk to humans, and this risk is growing in North Carolina. According to the North Carolina Division of Public Health State Center for Health Statistics, the state of North Carolina was free of diagnosed rabies cases as recently as 1989; yet in 2000, 91 of the 100 counties had documented cases of rabies in animals. Pet overpopulation also puts a strain on animal control agencies, which must care for, house, and often euthanize millions of unwanted animals annually. New Hanover County, North Carolina, Animal Control Services (NHCACS) saw the need to control this problem proactively by increasing rates of pet sterilization, and thus reducing

the number of unwanted companion animals in the community.

## ● Background

New Hanover County is an area on the southern coast of North Carolina with a rapidly expanding population. Wilmington, the county seat, is a 250-year-old city located between the Cape Fear River and the Atlantic Ocean. Home to almost 175,000 people, it comprises military installations, a state port, historic Civil War sites, and beautiful beaches. As the community has grown, so has the number of pets residing in the county.

Now into its third century of public health service, the New Hanover County Health Department (NHCHD) is a modern facility with almost 200 employees. Unlike many health departments, the NHCHD provides animal control services as well as traditional human population health and safety services, partly because of the public health threat of rabies virus exposure. The health director serves as the agency link to county government and directly oversees an assistant health director, personal health services manager, business manager, environmental health services manager, NHCACS manager, and a regional dental health contact.

In April 1999, a study of NHCACS outcomes and staff concerns identified the animal adoption process at the shelter as a possible contributing factor to pet overpopulation in the county. At the time, pets were

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sent to their new homes with a certificate that would cover the cost of neutering the animal at a local veterinary hospital. The study uncovered that 50 percent of the approximately 650 animals adopted each year did not undergo this surgery. Extrapolating from Humane Society of the United States estimates that a fertile dog or cat will produce about 12 to 20 offspring per year, unsterilized animals from NHCACS could have been producing as many as 5,000 to 8,500 offspring per year after being adopted.<sup>1</sup> In response to this problem, the shelter implemented transport of animals for off-site sterilization surgery in October 1999. By undertaking the responsibility for getting the animals neutered, the shelter went from 50 percent to 100 percent surgery compliance in a single month.

Transporting animals to off-site surgery, however, proved to be an inefficient use of staff time. The NHCACS needed a business plan to make possible in-house sterilization of all adopted animals. To develop the skills to create such a plan, a group of key individuals were sent to the UNC Management Academy for Public Health, a program that teaches public health professionals how to integrate business models into their initiatives.

## ● Methods

### Business plan development at the Management Academy for Public Health

The 2002 NHCACS Management Academy team members were strategically selected to include relevant staff and viable community partners. Because the veterinary community was a potential competitor—veterinarians could have construed the spay/neuter facility as a threat to their hospital income—a prominent local veterinarian was chosen to participate on the team, both to add his expertise to the planning of the facility and to advocate for the facility among his colleagues. The team included a manager from the county finance department, to help identify strategies for funding the project. A health educator rounded out the group. At the Management Academy, the NHCACS team received training in three basic areas of management skill: managing people, managing data, and managing finances. Pulling together these elements, the team produced a business plan to (1) build an addition to the current NHCACS building to house an on-site spay/neuter facility; (2) staff the facility; (3) finance start-up of the facility; and (4) finance ongoing expenses. Table 1 illustrates the key assumptions that the team members made as they created their business plan.

As part of the project, the NHCACS team identified the internal and external target market for its planned facility. The internal market included county govern-

**TABLE 1 ● Business plan: Key assumptions\***

<i>Personnel</i>	
	Shelter attendant (part time)
	Veterinarians and veterinary technicians on an as-needed basis, some as unpaid volunteers
<i>Key expenses</i>	
	Facility expansion
	Surgery equipment
<i>Financing</i>	
Start-up funding projections	
	Trust funds (approximately \$38,000 as of December 31, 2001)
	Community funding and donations (approximately \$16,900)
	In-kind donations for all equipment and furnishings
	In-kind donation for labor to complete the interior of the building addition
Operational funding	
	Adoption fees will cover operation costs and provide “excess” revenues to help offset other NHCACS operations
<i>Other assumptions</i>	
This is a cash-basis operation	
	Revenues and expenditures are accounted for on a cash basis
	No credit is extended for adoption fees; therefore, there are no accounts receivable
Volunteer time from the veterinary community is expected. Full estimate of costs for veterinarian time is calculated in procedure costs to be conservative in net revenue projections	
All officer positions will remain	
Any revenue impact from officer redirection is expected to be negligible	
5% salary increases per year (including both market adjustments and merit increases)	
3% inflation increases per year for nonsalary items	
Benefits = 30% of salaries	

\*NHCACS indicates New Hanover County, North Carolina, Animal Control Services.

mental stakeholders who would have to approve the project and the capital campaign that would fund its start-up. External customers included adopters and the general public, area veterinarians, and area animal rescue or retail operations. The project would target both of these market groups, using social marketing and public relations efforts to build public support for animal control efforts in general and financial support of the on-site spay/neuter facility in particular.

The business plan budget, shown in Table 2, addressed the costs and planned means of funding the facility.

### Implementation of the business plan

The Management Academy team returned to Wilmington with a comprehensive business plan to build and operate an on-site spay/neuter facility at the NHCACS Division of the NHCHD. Besides laying out the proposed operations, its plan summarized the industry, presented marketing strategies, and forecast key risks

**TABLE 2 ● Business plan: Budget\***

<i>Start-up expenditures</i>	
Buildings	
Construction	\$65,000
Fence expansion	\$1,500
Total buildings	\$66,500
Capital equipment	
Furniture	\$2,500
Equipment	\$15,000
Total capital equipment	\$17,500
Reserve for contingencies (10%)	\$8,400
Total start-up expenditures	\$92,400
Revenue sources	
NHCACS Trust Fund	\$38,000
Monetary donations	\$16,900
In-kind donations	\$37,500
Total revenue	\$92,400

\*NHCACS indicates New Hanover County, North Carolina, Animal Control Services.

and success factors. Results of the implementation of this plan are detailed below.

## ● Results

### Securing support

County Commissioners approved the project on August 19, 2002, as part of the consent agenda, meaning that the business plan created by the team at the Management Academy answered all questions that may have arisen about the project. Their approval authorized NHCACS managers to undertake a capital campaign for the NHCACS Trust Fund, which would fund the start-up of the facility; it also authorized them to operate the facility on a fee-for-service basis.

For 2 years, NHCACS managers and partners rallied political support, raised money, and planned the new wing of their facility. To rally support, they presented local veterinarians with data showing that a public spay/neuter facility would not decrease their business appreciably because it would primarily involve animals that were the property of NHCACS, not of the general public. The veterinarian partner on the team was instrumental in communicating with the local veterinarians and bringing them on as partners. NHCACS managers also applied social marketing techniques they had learned at the Management Academy—public relations advertising and strategic redesign of their current facilities to make them more inviting and user friendly—to enhance the public perception of NHCACS. The department published a news release describing the project and soliciting donations to NHCACS Trust Fund, which received a

\$28,000 gift willed to NHCACS by a New Hanover County animal lover.

### Facility design and construction

Construction of the 1,020-sq ft building was completed in June 2004. The facility utilized technologies that optimized efficiency, including, for example, a central supply of oxygen for anesthetic machines with a delivery system in the ceiling. This system both saved space and proved more economical than using small tanks attached directly to the machines. Other space- and time-saving elements included having two tables in the operating room, so the surgeon could go directly from one procedure to the next, and installing a “tub table” in the preparation area to facilitate the cleaning and preparation of the patients. New Hanover County Property Management served as the project manager, and the facility was erected without the use of taxpayer monies. Equipment was added and tested by 2004. Total building cost was \$58,000, paid from the NHCACS Trust Fund.

### Operations

The veterinarian member of the Management Academy team that had conceived of the program and written the business plan performed the first surgery on September 22, 2004.\* Five local veterinarians have volunteered or contracted their time; two have regular contracted hours at the facility. As of January 31, 2006, a total of 1,108 surgeries had been completed, possibly preventing from 3,325 to 5,000 unwanted offspring, assuming that only half of those animals would have been sterilized under the old voucher system. Also, since the opening of the facility, there has been an unanticipated 22 percent increase in animal adoptions and a favorable public response to the convenience and speed with which adoptions are now handled.

In summer 2005, the facility was put to the test by a large search and seizure operation of a single residence housing 137 Dachshunds in unsanitary conditions. These animals became the property of New Hanover County to be placed for adoption. More than 100 dogs needed surgery and new homes. Because the department had the functioning spay/neuter facility, and a contracted veterinarian willing to increase her hours during this time, staff efficiently sterilized these

\*Dr Bob Weedon went on to earn his master of public health degree from the University of North Carolina School of Public Health and is currently the veterinarian member of the New Hanover County Board of Health. He has remained instrumental to the success of the spay/neuter facility, not only volunteering his time but also bringing in his veterinary students to help as part of their training.

**TABLE 3 ● New Hanover County Management Academy teams and their outcomes**

Year	Project focus	Outcome
2000	Diabetes prevention and treatment	Developed "Diabetes Today" Coalition, which coordinates classes, screening, and awareness events for those living with, and those trying to prevent, diabetes.
2001	Adolescent obesity (first team to involve community member)	Partnerships developed with local schools' nursing and nutrition professionals. Resulted in the county's having one of the most comprehensive and active school health advisory councils in North Carolina, co-chaired by a member of that team.
2002	Hand washing in childcare facilities	County schools and daycare facilities benefited from education developed in the business plan. Blue Ribbon Winner at the Management Academy.
2002	Animal control pet overpopulation	On-site spay/neuter facility opened in 2004. No taxpayer dollars used to fund project.
2005	Injury prevention safety village	Team members included two representatives from the county fire department. Project being explored with area architects, parks and recreation offices, and potential corporate sponsors.

animals, making them available for adoption within 1 month. Thus, an efficient and effective solution was found for what could have been a lengthy and cumbersome problem.

In its planning, the Management Academy team had avoided estimating savings or earnings on the basis of the redirection of staff activities (see Table 1). It was assumed that although staff would probably be doing tasks that earned money (such as writing citations) rather than those that cost money (transporting animals to off-site surgery), the earnings from such activities would be negligible, or at least indeterminate. However, the facility is realizing a \$5,000 per year savings when calculating hourly contract fees on-site versus the cost of individually contracted services off-site. This savings translates into a reimbursement of the trust fund in about 10 years.

## ● Discussion

The creation of the NHCACS on-site spay/neuter facility serves as an example of best practice for an organization. A need was identified; a group of dedicated professionals was convened and given the skills necessary to bring about the solution; a comprehensive business plan was completed; and the needed facility was built and has begun to serve the community.

A critical success factor for this project was the strategic partnering with the community that allowed the Management Academy team to fully understand its target market, competition, and long-term opportunities. The veterinary member of the Management Academy team, besides providing practical assistance in designing the facility and performing surgeries, lent his valuable connections with the veterinary commu-

nity, which helped assure that the program was uncontroversial and thus attractive to funders. The Management Academy program strongly suggests that public health teams come with a community partner, and several New Hanover County participants have included partners (Table 3). The NHCHD as a whole has benefited greatly from community partnerships, especially with organizations the department may not have considered traditional allies.

Specific marketing and data and personnel management skills were also key to the success of this project. The ability to analyze data effectively and use it to make better presentations to county and other officials, for example, helped facilitate the spay/neuter facility's easy passage through the county commissioners' review process. These same skills, used with different partners and sponsors, applied to creating other programs that could be sustained without added public monies, have helped the health agency become more financially independent as state and federal funding has diminished steadily.

The on-site spay/neuter program has resulted in a 100 percent sterilization rate of adopted pets in New Hanover County with no added cost to taxpayers, at a great savings of NHCACS staff time, and with the added benefit of increasing customer satisfaction among adopters. Further evaluation will determine the broader benefit to the pet and human population at large, including, ideally, lower rates of rabies and a decrease in the number of euthanized animals.

## REFERENCE

1. The Humane Society of the United States. Statistics. Available at: [www.hsus.org](http://www.hsus.org). Accessed on February 20, 2006.