

SHORT REPORT

# Assessing the Veterinary Health Care Needs of Knoxville's Latino Community Through a Community-Based Participatory Approach: A Short Report

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## Abstract

The primary objective of the study was to better understand the interests, needs, and perceived barriers to veterinary care of Knoxville's Latino community. Investigators adapted a national survey designed to understand access to veterinary care for distribution to the Latino population through a community-based participatory approach with an established community center. Seventy-six percent of survey respondents ( $n = 46$ ) reported that they consider the pet as part of the family. Forty-eight percent said their pets were not spayed or neutered (s/n), and of these, 39% said s/n was cost-prohibitive, whereas 22% did not know where to receive services. Twenty-six percent identified an inability to obtain treatment for a sick pet, primarily due to a lack of access to affordable care. Participants expressed interest in vaccines and parasite prevention (64%), training and behavior (36%), and information on veterinary and pet care resources (29%). The survey tool (provided in English and Spanish) and community engagement approach can assist animal welfare organizations in identifying and addressing community veterinary needs and barriers to care.

Keywords: *shelter medicine; access to veterinary care; veterinary outreach; underserved pet owners*

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Access to care has become a topic of great concern in veterinary medicine. In 2016, the Access to Veterinary Care Coalition (AVCC) conducted a national study to identify barriers and best practices to assist underserved households with veterinary care.<sup>1</sup> The study showed that socioeconomic, educational, racial, geographic, and cultural challenges hinder access to resources for households with pets, the most common being cost.<sup>1,2</sup> Other barriers include a lack of transportation, a lack of knowledge about what care is needed and where to find it, shortage of veterinarians or veterinary care deserts, language barriers, and fear of judgement for not seeking care sooner.<sup>1,3-5</sup> Notably, the AVCC nationwide survey did not account for non-English speaking pet owners; surveys were distributed in English only.

According to 2020 US Census data, the Latino or Hispanic population makes up 5.2% of the population in Knox County, TN with 5.7% in Knoxville city, and a total of 18.9% of the U.S. population overall.<sup>6</sup> A recent descriptive study examining U.S. pet ownership and veterinary expenditures found that pet ownership had increased in the Hispanic population, but this group was less likely than

White pet owners to use veterinary services.<sup>7</sup> Furthermore, Hispanic households report less ease of access to veterinary care as compared to non-Hispanic White households, even after accounting for education and financial fragility.<sup>8</sup> Barriers to veterinary care identified in the Latino community include cost, hours of operation, and transportation.<sup>2</sup> In one survey, while 90% of Latino respondents believed that neutering was a good idea, only 11% of dogs and 27% of cats had been sterilized in the community.<sup>9</sup> Investigators have also found that when barriers to care are removed, race and ethnicity are not primary determinants for obtaining veterinary care or pet sterilization.<sup>10</sup> The goal of this survey was to determine the veterinary needs and barriers to veterinary care of a local Hispanic population via a community-based participatory approach that incorporated a survey adapted from the AVCC survey.

## Methods

Investigators adapted a survey initially created by the AVCC to identify barriers to veterinary care in underserved populations.<sup>1</sup> The survey was translated into

Spanish, approved by community leaders, and a paper version offered to attendees at events and classes held by the community partner, Centro Hispano of East Tennessee (CH). Organizational leaders determined ideal times for distribution to enable investigators to survey a diverse group of pet owners. Staff and leadership explained the survey and translated questions to visitors. Completed surveys were collected without personal identifiers, and participants received one free pet tag, engraved with the pet's name and phone number.

This study received IRB approval (University of Tennessee Knoxville (UTK) IRB-19-05365-XM) and funding through an internal UTK Community Engagement Incentive grant.

## Results

Data collection yielded 34 surveys from five site visits in 2020 (1/9, 1/13, 1/22, 2/11, 2/19) and 12 additional surveys post-pandemic (7/17/21).

Households averaged two pets each with 13.6% cat only, 65.9% dog only, and 20.5% blended (Table 1a). Similar to national AVCC findings, 28% of survey participants obtained their pets through an animal shelter or rescue organization. For CH households, 28% of pets were gifted by friends or family, and 26% came from breeders or pet stores (Table 1b). Participants strongly agreed (70.5%) that they considered the pet a member of the family (Table 1c).

Most participants (66.7%) keep pets indoors when not home, whereas 15.6% said pets stayed in a fenced yard and 2.2% were kept tied outdoors (Table 1d). Almost 48% reported that pets were not spayed or neutered (Table 1e), and of these, 39% said s/n was too expensive, whereas 22% did not know where to receive s/n services.

Respondents reported that they utilize local veterinary services for annual exams (56%), vaccinations (82%), and parasite prevention (58%). Twenty-six percent identified a time over the past 2 years when they were unable to get needed treatment for a sick pet, with the primary reason being a lack of affordable care (Table 2a). Other reasons included not knowing where to find care (22%), language barrier (11%), and 22% were concerned that the care provider would think badly of them for not seeking care earlier (Table 2b). Regarding illness, 52% of national survey participants sought care for an ill pet at a veterinary clinic compared to 86.1% of CH participants (Table 2c). During a medical emergency, 12.5% of respondents from CH and 65% from AVCC did not seek health care for their pet (Table 2d).

Table 2e shows participant interest in services and resources on vaccines and parasite prevention (64.4%), training and behavior (35.6%), information on clinics and pet care resources (28.9%), and laws regarding pets (24.4%). They also indicated interest in attending events

Tables 1 & 2. Comparison of Centro Hispano and AVCC access to veterinary care survey results

Table 1a. Household makeup

	Centro Hispano	AVCC Overall	AVCC South*
Average # of pets	2.0	2.2	Not reported
Cat only	13.6%	24.0%	19.0%
Dog only	65.9%	46.5%	50.0%
Blended household	20.5%	29.6%	31.0%

\* AVCC South is composed of U.S. States (DE, DC, FL, GA, MD, NC, SC, VA, WV, AL, KY, MS, TN, AK, LA, OK, TX).

Table 1b. Where did you obtain your pet?

	Centro Hispano*	AVCC Cats	AVCC Dogs
Animal shelter or rescue organization	28.3% (13)	27%	27%
Bought at a pet store, breeder, or another source	26.1% (12)	8%	29%
Received as a gift	28.3% (13)	11%	13%
Found as a stray	13.0% (6)	30%	8%

\* Several questions had a "choose all that apply" option, answers do not sum to 100%.

Table 1c. Attitude about pet

	Centro Hispano	AVCC
My pet is/are considered a member of my family.	Strongly Agree 70.5% (31)	Strongly Agree 80.2%
	Somewhat Agree 6.8% (3)	Somewhat Agree 8.7%

Table 1d. What do you do with your pet when you leave your home?

	Centro Hispano*
Pet stays indoors	66.7% (30)
Pet is tied up outside	2.2% (1)
Pet stays in fenced yard	15.6% (7)
Pet stays with friends/relatives	11.1% (5)

\* Several questions had a "choose all that apply" option, answers do not sum to 100%.

at CH that included physical exams (71.1%), vaccines (73.3%) and training tips (51.1%).

## Discussion

The survey identified a pressing need for education and resources, including sterilization and preventive health care for pets of Latino people in the Knoxville area. Twenty-two percent of respondents with unsterilized pets indicated they did not know where to receive services. A larger percentage

Table 1e. Spay/neuter status

	Centro Hispano	Cats: AVCC Overall	Cats: AVCC South*	Dogs: AVCC Overall	Dogs: AVCC South*
Pet was already spayed/neutered when I got the pet	18.2% (8)	27%	20%	25%	21%
I had the pet spayed or neutered at a free or reduced cost clinic	15.9% (7)	16%	15%	10%	11%
I had the pet spayed or neutered at a veterinarian's office or clinic	18.2% (8)	36%	39%	36%	35%
Pets are not spayed or neutered	45.7% (21)	18%	24%	26%	32%

\* AVCC South is composed of U.S. States (DE, DC, FL, GA, MD, NC, SC, VA, WV, AL, KY, MS, TN, AK, LA, OK, TX).

Table 2a. In the past 2 years, has there been a time that you wanted or needed treatment for an illness for your pet(s), but was not able to get it?

Barrier to Sick Care	Centro Hispano	AVCC Overall	AVCC South*
	26.3% (10)	14%	13%

\* AVCC South is composed of U.S. States (DE, DC, FL, GA, MD, NC, SC, VA, WV, AL, KY, MS, TN, AK, LA, OK, TX).

Table 2b. What are the reasons you didn't receive veterinary care?

	Centro Hispano
I could not afford it	100% (9)
I did not know where to get the care	22.2% (2)
I could not find a veterinarian or care provider who speaks my language	11.0% (1)
I was concerned a veterinarian or care provider would think badly of me for not seeking care earlier.	22.2% (2)

Table 2c. Thinking about the most recent time your pet(s) needed treatment for an illness, where did you receive the care?

	Centro Hispano	AVCC
I have not sought care	8.3% (3)	42%
Veterinary office or clinic	86.1% (31)	52%
Animal shelter or other community program	2.8% (1)	2%
Other	2.8% (2)	2%

Table 2d. Thinking about the most recent time your pet(s) needed emergency care, where did you receive the care?

	Centro Hispano	AVCC
I have not sought care	12.5% (4)	65%
Veterinary office or clinic	78.1% (25)	29%
Animal shelter or other community program	3.1% (1)	1%
Other	6.3% (2)	3%

of participants (86%) reported accessing sick care through a veterinary clinic as compared to 14% nationally, which may reflect fewer low-cost options for veterinary care or a lack of knowledge regarding resources.

Table 2e. What kind of services or educational information would you be interested in for your pet?

	Centro Hispano
Vaccines/flea tick prevention	64.4% (29)
Laws regarding pets	24.4% (11)
Advice on training or behavior	35.6% (16)
Information about pet care resources and clinics in your area	28.9% (13)
None of the above	13.3% (6)
Other	4.4% (2)

A study in 2010 found that the proportion of Hispanic owners with sexually intact pets was significantly ( $P < 0.001$ ) higher than other racial/ethnic groups, with 37.5% owning sexually intact males and 16.2% with intact female pets.<sup>11</sup> The AVCC survey found that 18% of cats and 26% of dogs were unsterilized, with higher rates reported in the South (cats 24%, dogs 32%). The percentage of unsterilized pets, that is 48%, was higher than either of these studies, but lower than the 89% and 73% of dogs and cats, respectively, found to be unsterilized in a Texas border community.<sup>9</sup> In our study, 39% of respondents with intact pets said s/n was too expensive, which was greater than the 25% of Latino college students reporting cost as a primary barrier.<sup>12</sup> In this group, 41% of respondents with unsterilized pets reported a desire for puppies or kittens, which may represent a reason for not seeking sterilization services that are not well-captured in other studies.

Unexpectedly, the investigators identified only one veterinary clinic in Knoxville that advertised translation services for Spanish-speaking pet owners. Further, the location of the CH community center was in direct view of Knoxville's municipal animal shelter, yet CH pet owners had limited knowledge of the shelter or available s/n or vaccine-related services.

### Conclusion

The national AVCC survey, translated into Spanish and adapted for a community-based engagement project, can assist animal welfare organizations in identifying and

addressing veterinary needs and barriers to care of Latino pet owners.

### Authors' contributions

J. Weisent: conceptualization and design, implementation, data analysis, writing and revision.

B. DeBolt: implementation, writing and revision.

L. Daugherty: survey adaptation, data analysis, writing and revision.

A. Niceley: implementation, data collection, writing and revision.

J. Norris: project coordination, implementation, data collection, manuscript review.

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### Author notes

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