

# University of Arizona College of Veterinary Medicine & One Health Initiatives

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Jennifer Wishnie, DVM, MSc, MPH, DACVPM  
Janice Baldwin Rowitt, MPH, DVM Candidate '25



College of  
Veterinary Medicine

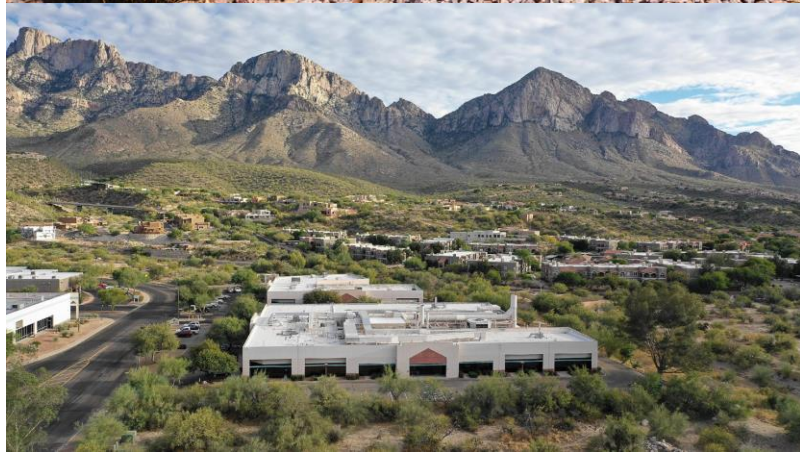
# Educating the Next Generation of One Health Veterinary Practitioners

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Jennifer Wishnie, DVM, MSc, MPH, DACVPM  
University of Arizona, College of Veterinary Medicine



College of  
Veterinary Medicine



Veterinary  
Medicine

# WHAT SETS US APART

## 3 MAIN QUALITIES

### 3 YEAR PROGRAM

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Year-round model gets students working and earning salaries faster

### TEAM-BASED ACTIVE LEARNING

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We are lecture free! Research has proven this model works better to learn and retain information while developing collaboration skills

### DISTRIBUTIVE CLINICAL MODEL

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You won't find a veterinary hospital here! We have over 300 clinical partnerships



# TEAM BASED ACTIVE LEARNING

1. PREPARATION
2. ASSURANCE TESTING
3. APPLICATION FOCUSED EXERCISE

Students will be given material to review prior to each class

Students will be given a short quiz to complete by themselves and with their small group. Then the class will review the questions as a whole

Students will work in small groups on a case study or activity to ensure they understand the content



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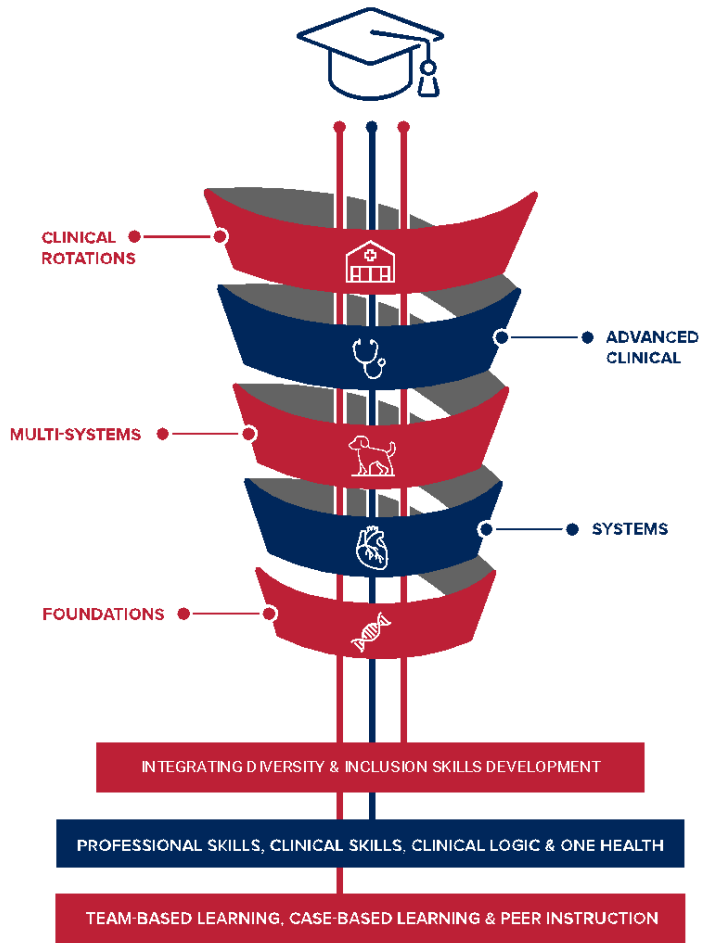
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Year 1 Courses (2021-2022)															
8/16-8/20	8/23-10/1	10/4-10/22	10/25-10/29	11/1-12/17	12/20-12/31	1/3-2/18	2/21-2/25	2/28-4/15	4/18-4/29	5/2-6/24	6/27-7/1	7/5-8/19			
Orientation	VETM 801: Foundations (6 weeks)	VETM 806: Self Defense	Wellness Break	VETM 806: Self Defense (10 weeks)	Winter Break (2 weeks)	VETM 807: Musculoskeletal (7 weeks)	Wellness Break	VETM 808: Vital Circuitry (7 weeks)	Spring Break (2 weeks)	VETM 809: Gastrointestinal (8 weeks)	Wellness Break	VETM 810: The Cycle of Life (7 weeks)			
	VETM 802A: Professional Skills			VETM 802A: Professional Skills		VETM 802B: Professional Skills		VETM 802C: Professional Skills		VETM 802C: Professional Skills					
	VETM 803A: Clinical Skills			VETM 803A: Clinical Skills		VETM 803B: Clinical Skills		VETM 803B: Clinical Skills		VETM 803C: Clinical Skills					
	VETM 804A: Clinical Logic in Doctoring			VETM 804A: Clinical Logic in Doctoring		VETM 804B: Clinical Logic in Doctoring		VETM 804B: Clinical Logic in Doctoring		VETM 804C: Clinical Logic in Doctoring					
	VETM 805A: One Health in One World			VETM 805A: One Health in One World				VETM 805B One Health in One World				VETM 805C One Health in One World			

Year 2 Courses (2022-2023)													
8/22-8/26	8/29-10/7	10/10-12/16			12/19-12/30	1/3-2/17	2/20-2/24	2/27-4/14	4/17-4/21	4/24-8/4		8/7-8/18	
Wellness Break	VETM 811: Neurobiology and Behavior (6 weeks)	VETM 812: The Sum of the Parts (10 weeks)			Winter Break (2 weeks)	VETM 813: Companion Animal: Advanced Clinical Management (7 weeks)	Wellness Break	VETM 816: Large Animal: Advanced Clinical Management (7 weeks)	Spring Break	VETM 817: Selectives (15 weeks)			Summer Break (2 weeks)
	VETM 802D: Professional Skills			VETM 8-14A: Anesthesia and Surgery				VETM 814B: Anesthesia and Surgery					
	VETM 803D: Clinical Skills			VETM 815A: Advanced Professional Skills				VETM 815A: Advanced Professional Skills					
	VETM 804D: Clinical Logic in Doctoring			VETM 815B: Advanced Professional Skills				VETM 815B: Advanced Professional Skills					
	VETM 805D: One Health in One World					VETM 805D: One Health in One World				VETM 805D: One Health in One World			

Year 3 Clerkships (2023-2024)														
8/21-9/17	9/18-10/15	10/16-11/12	11/13-12/10	12/11-1/7	1/8-2/4	2/5-3/3	3/4-3/31	4/1-4/28	4/29-5/26	5/27-6/23	6/24-7/21	7/22-8/16	8/21-8/23	8/24
Block 1 Clerkship (VETM 830: General Practice)	Block 2 Clerkship (VETM 831: Specialty/Referral)	Block 3 Clerkship (VETM 832: Shelter/Primary Care)	Block 4 VETM 833: NAVLE	Block 5 Winter Break or 4-week Clerkship	Block 6 Clerkship (VETM 844: Elective)	Block 7 Clerkship (VETM 834: Elective)	Block 8 Clerkship (VETM 835: Elective)	Block 9 Clerkship (VETM 840: Elective)	Block 10 Clerkship (VETM 841: Elective)	Block 11 Clerkship (VETM 842: Elective)	Block 12 Clerkship (VETM 843: Elective)	Block 13 Clerkship (VETM 844: Elective)	Senior Capstone	Graduation





PRIOR  
APPLICANT  
POOLS



518 APPLICANTS



1550 APPLICANTS



1783 APPLICANTS



2183 APPLICANTS



2482 APPLICANTS



2646 APPLICANTS



# Student Demographics

## Class of 2027

65 In-state | 45 Out-of-State

The Class of 2027 includes students from 17 states, with Arizona, California, and Texas as the top locations.

We also have students from two different countries: Japan and the Bahamas.

### Top States:

- Arizona
- California
- Texas

### Countries

#### Represented:

- Japan
- Bahamas



Veterinary  
Medicine



What does a Day One  
ready veterinarian  
competent in One Health  
look like?



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The background features three overlapping light gray circles. The top circle contains silhouettes of a woman, a man carrying two buckets, and a child. The bottom-left circle contains silhouettes of a fox, a dog, and a goat. The bottom-right circle contains silhouettes of trees and birds. The text "Everyday is One Health Day" is centered over these circles in a bold, dark blue font.

# Everyday is One Health Day



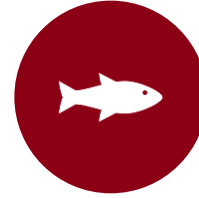
Small animal  
veterinarian



Food animal  
veterinarian



Public health veterinarian



Aquatic veterinarian



Professor



More...



How do we prepare  
graduates to be One  
Health practitioners?



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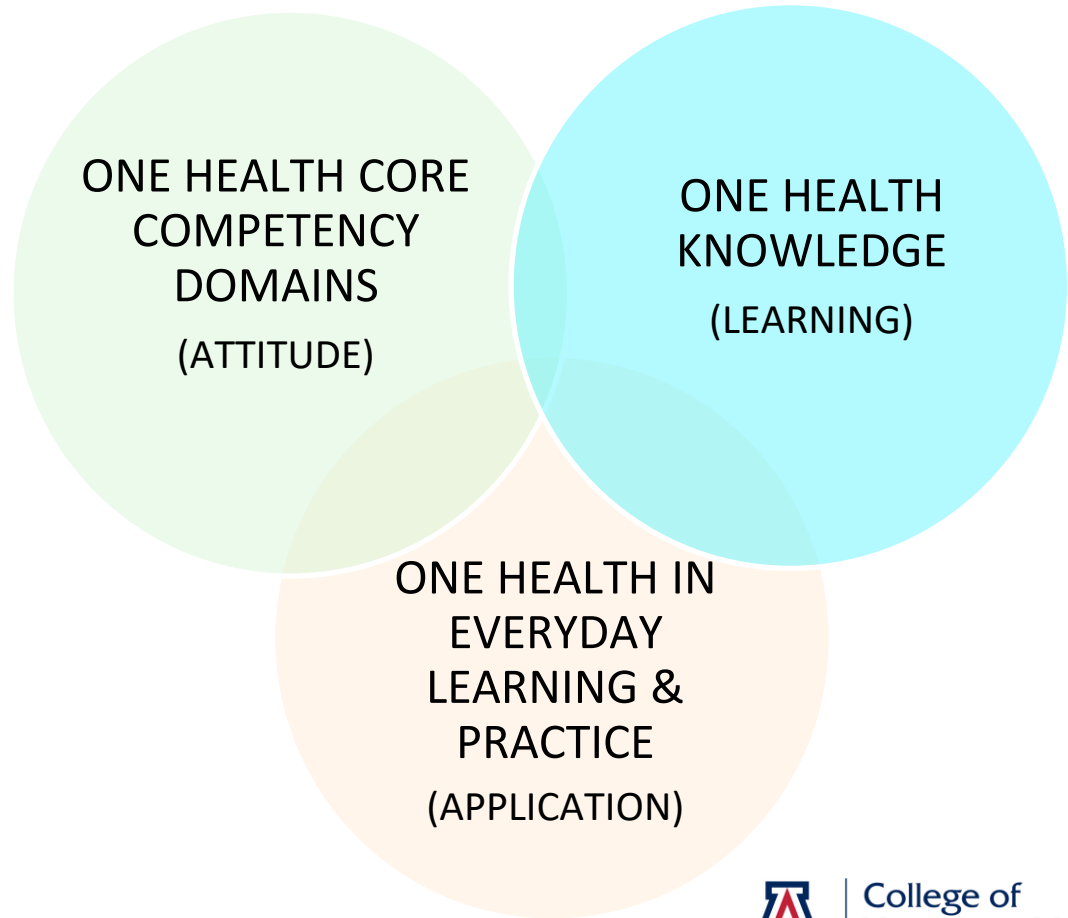
# Perfect Opportunity

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- Developing curriculum “from the ground up”
- Focusing on an active learning approach
- Utilizing team-based, collaborative learning
- Fostering innovative, adaptive learners and skilled problem-solvers



# Fundamentals of One Health Education





# One Health Knowledge

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Zoonoses

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Food Safety/Foodborne Disease/Food Security

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Human Animal Bond/Social Welfare

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Emergency Preparedness and Response

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Antimicrobial Resistance

---

Epidemiology and Surveillance

---

Environment and Ecosystems Health

---

Preventive Medicine

---

Comparative & Translational Research

---

Policy and Law

---

Climate Change and Clean Energy

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One Health in  
Everyday           
Learning and  
Practice

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"One-Health in One World"  
course (4 semesters)

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Non-Traditional Careers in  
Veterinary Medicine Selective

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One Health Transdisciplinary  
Selective

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One Health Clinical Rotations



One Health in  
Everyday —  
Learning and  
Practice

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Veterinary Public Health/  
One Health Residency

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Student run One Health Club

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Collaborative One Health  
Research

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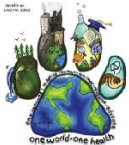
More to come...



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HEALTH



# ONE HEALTH



College of Veterinary Medicine





# UACVM One Health Club

## Heat Relief Initiative

*Jack Blumberg, Sophia Fuentes, Ginny Seare, Junika Rowls at Salvation Army Hospitality House*

# Heat Relief for People & Pets



- 4 total events
- 2 events in collaboration with Tohono O'odham Nation
- 2 events in collaboration with Pima Co. Cooling Centers
- Goals:
  - Distribute items to reduce heat stroke risk in humans and animals
  - Educate community
    - **Risk factors for heat stroke in pets**
    - **How to identify heat stroke in pets**
    - **What to do if you identify heat stroke in pets**
    - **Resources / veterinary care**

# HAVE PETS?

COME LEARN HOW TO  
KEEP THEM SAFE  
FROM SUMMER HEAT



## INFORMATION & RESOURCES TO PREVENT HEATSTROKE IN PETS

Presented by the University of Arizona  
College of Veterinary Medicine

Learn about heatstroke in dogs & cats  
and pick up **free goodies** for your pets!



**WEDNESDAY, JULY 17TH**

Get info on heatstroke in  
cats and dogs!



**FLOWING WELLS LIBRARY**

1730 W Wetmore Rd,  
Tucson, AZ 85705



**10AM TO 1PM**

Pick up items for your  
pet, while supplies last!


## Community Engagement

- Tohono O'Odham: Radio ad
- Pima County Cooling Centers -  
Flyers
  - Flowing Wells Library
  - Salvation Army Hospitality House
- How effective?



# Educational Component

Educational flyers provided in English and Spanish



## HEAT STROKE IN DOGS

### What is Heatstroke?

- Dogs are at risk when their temperature is over 103 degrees Fahrenheit
- Different than a fever, which is caused by sickness. With heatstroke, a dog's cooling systems (like panting) are not enough to regulate their body temperature and they get too hot.

### What are some risk factors for heatstroke?


- Hot, humid environments
- Exertion or strenuous exercise
- Animals left in the car
- Flat-faced breeds: pugs, Boston terriers, and Bulldogs.

### Who can I call for help?

- Tohono O'odham Nation Veterinary Clinic
  - (520) 383-2298
  - AZ-86, Sells, AZ 85634
- Tucson Resources:
  - Pima Animal Care Center Pet Support
    - Call 520-724-7222
  - Humane Society of Southern Arizona Income Based Wellness Program - Appointment Needed!
    - Apply at <https://hssaz.org/services/clinic/financial-aid/>
  - Low cost spay/neuter & vaccine clinics
    - <https://shorturl.at/7hrcU>

### What are the symptoms?


- Collapse
- Labored breathing
- EXCESS panting
- Lethargic
- Depressed
- Unresponsive
- Vomiting or diarrhea - may be bloody
- There may be signs of bleeding or bruising on the skin and gums



### What should I do if I'm worried my dog has heatstroke?

- Get to a cool, shady area, or AC if possible
- If they are not vomiting, try giving water
- Wet your dog down with **room temperature** water
- Don't cover them in a wet towel or blanket as this traps heat
- Call a veterinarian right away

- **Heat stroke can be deadly, so seek treatment right away!**



# Item Distribution

Donations from Tucson  
Water, City Vet, AZVMA,  
Blue Buffalo, AZDHS





# Data Collection

- Educational assessment via pre- and post-survey
- Designed on Qualtrics, conducted orally
  - Demographic information
  - Information about number, type, and breed of pets
  - T / F questions about heat stroke in pets
  - How likely would you be to seek out veterinary care if you thought your pet had heat stroke?
  - What is the main reason you would NOT seek veterinary care if you thought your pet had heat stroke?

# 20 pre-surveys & 8 post surveys

## Of pre-survey responders:

65% female / 35% male

Majority (35%) in 55-64 age range

35% of respondents identified as Hispanic / LatinX

Majority (55%) identified as White

90% of respondents said they were **“Extremely Likely”** to seek veterinary care if they believed their pet had heatstroke

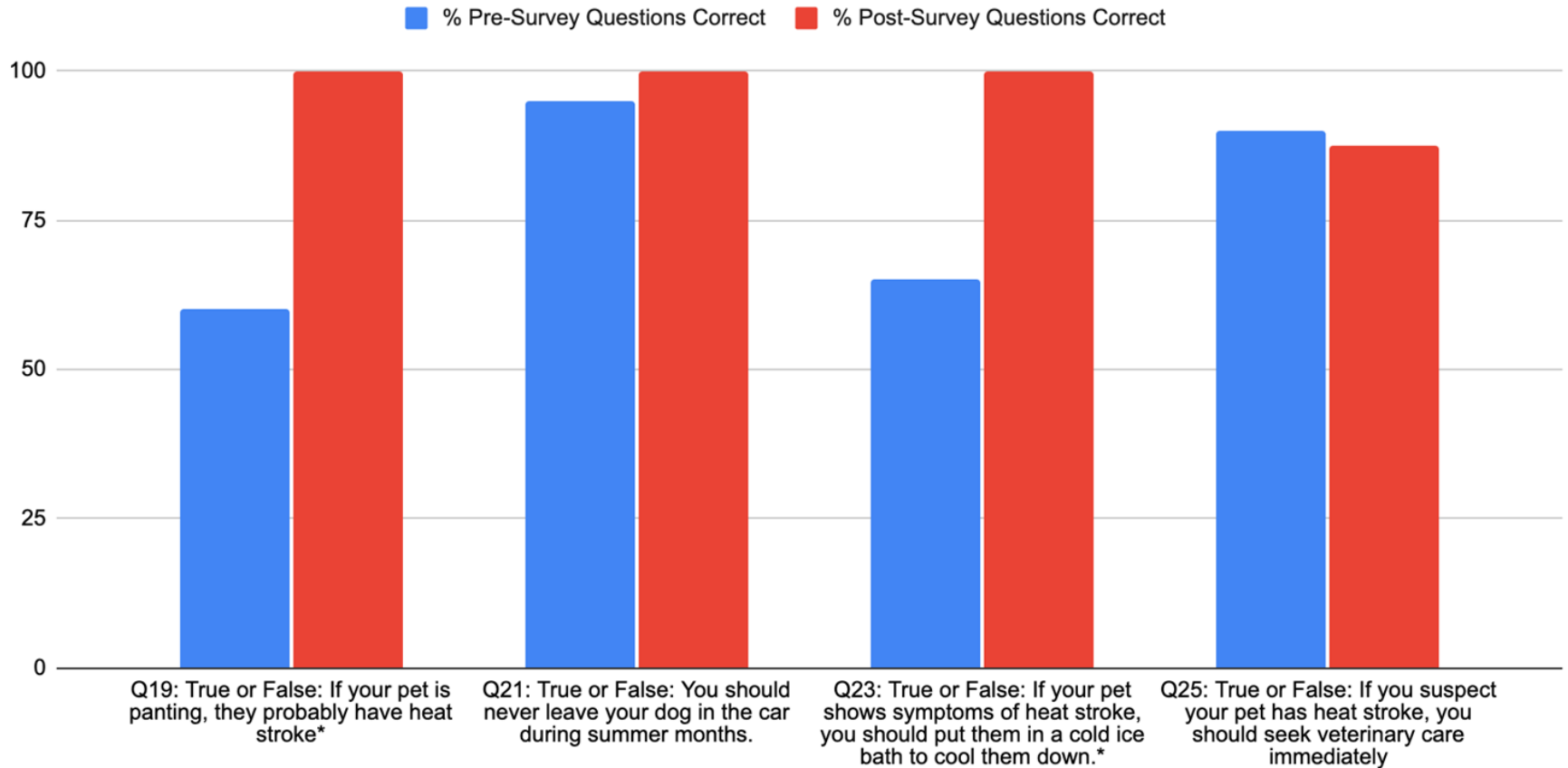
Barriers to seeking veterinary care:

Lack of financial resources (3)

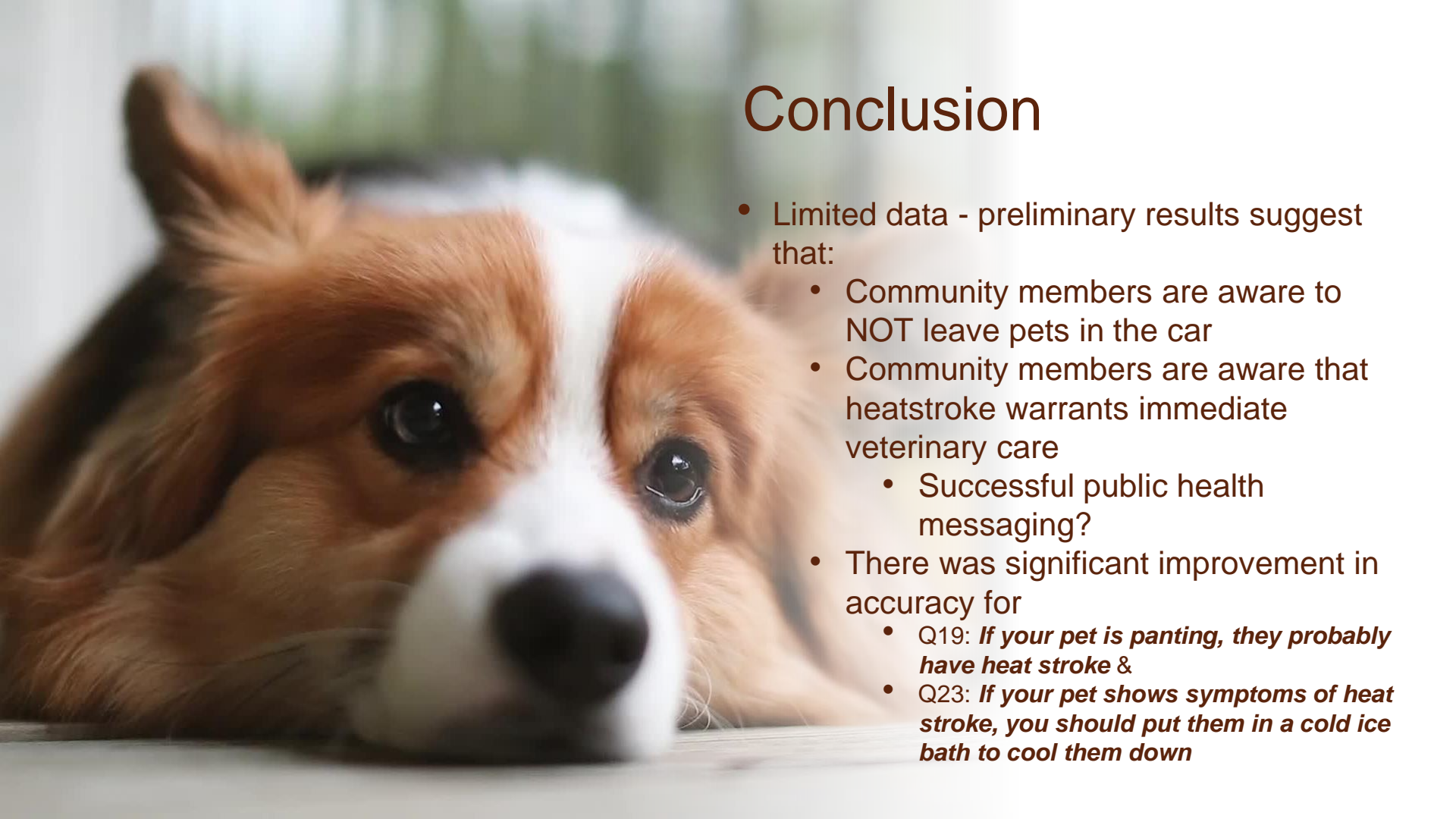
Lack of transportation (1)

Difficult to pick up their animal (1)

# Survey Response Accuracy for True / False Questions on Heat Stroke in Companion Animals



\*p<0.05



# Conclusion

- Limited data - preliminary results suggest that:
  - Community members are aware to NOT leave pets in the car
  - Community members are aware that heatstroke warrants immediate veterinary care
    - Successful public health messaging?
  - There was significant improvement in accuracy for
    - Q19: *If your pet is panting, they probably have heat stroke &*
    - Q23: *If your pet shows symptoms of heat stroke, you should put them in a cold ice bath to cool them down*



Questions?

**Thank you!**