SOUTH AFRICA
TRACKING AND TAMING ZOONOTIC DISEASES

Many emerging infectious diseases are zoonotic, meaning they are transmitted from animals to humans. A One Health program in South Africa connects physicians and veterinarians to better understand causes of human disease by looking at animals in a new light.

How do you tonsil swab a wild African buffalo? More importantly, why? The answer is that buffalo are reservoirs for certain zoonotic diseases. Many infectious diseases (such as rabies) are transmitted through animals, which is why tracking animal diseases that could potentially jump to humans is a crucial aspect of public health. Early detection means spotting these diseases in animals before they make people sick.

BRIDGING ANIMAL AND HUMAN HEALTH

Dr. Marietjie Venter of GDD South Africa visited Kruger National Park along with a PhD student from the University of Pretoria. As part of a wildlife surveillance program, a skilled group of veterinarians sampled 30 buffalo in three hours. They swabbed tonsils and collected blood, fecal, and stomach content to investigate foot and mouth disease.

While buffalo are natural reservoirs for foot and mouth disease, which can spread to cattle, they are also thought to carry Rift Valley fever, bovine tuberculosis, and other viruses that could potentially spread to humans. The University's Zoonoses Research Unit will use the samples collected by the veterinarians to investigate for these zoonotic diseases.

PARTNERSHIP IN ACTION

The expanded partnership with the University's research unit improves surveillance capacity, adds data collection sites, and enhances reporting. According to Dr. Wanda Markotter, Principal Investigator for the original partnership agreement, "This new project will significantly enhance the collaboration between the Health and Veterinary faculties and provide feedback to the Ministries of Health and Agriculture in South Africa."

African buffalo carry diseases that can be transmitted to humans.

So, back to that buffalo. Are you curious about how those specimens are collected?

STEP 1: Tranquilizer dart.
STEP 2: Apply blindfold.
STEP 3: Move with tractor to recovery area.
STEP 4: Collect sample.
STEP 5: Provide tranquilizer antidote.
STEP 6: Run!

Doctors treating humans may want to count their blessings.

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Collecting samples from African buffalo in Kruger National Park.

Read the full story: http://www.cdc.gov/globalhealth/healthprotection/gdd/stories/south_africa_zoonotic_diseases-.html