

## POSTER PRESENTATIONS 1 1C: ONE HEALTH

**Presenter's Name:** Callaghan, Paige

**Additional Authors:** Baxter J, Olea-Popelka FJ

**Abstract Title:** An interdisciplinary approach to attitudes towards wind turbine health risks in Canada

Although designed as a safer and more sustainable energy source to meet carbon emission targets, wind turbine development in Canada has come to a near complete stop, due in part to strong pushback from concerned citizens regarding wind turbine impacts to human health and well-being. Social acceptance of wind turbines has shown to be an influential factor in turbine development, yet perceived health risks are often not considered. Wind turbine health impacts are highly debated, as are the pathways in which these impacts may occur. However, several studies examine this epidemiologically, and assume a direct cause-effect relationship between exposure and health outcomes. Consequently, this study presents a novel approach to negative wind turbines health outcomes through an interdisciplinary, one health analysis of perceived health concerns and causal exposure pathways. One health is a holistic approach to health that considers animal, human, and environmental perspectives, while emphasizing multidisciplinary stakeholder collaboration. As a component of a one health approach to wind turbines, we offers stakeholders an opportunity to voice their opinions on concerns related to negative health outcomes from wind turbine exposure, taking the pulse of how wind turbines are perceived in light of information that often seems inconsistent or conflicting.

Our research goal is to identify predictors of perceived wind turbine health concerns, including perceptions of causal exposure pathways, as well as create an interdisciplinary stakeholders map to emphasize one health connections and opportunities for future collaboration across Canada and specifically at Western University. It is hypothesized that those who perceive a direct causal exposure path will be most concerned about all health outcome categories in question. To test this, a Canada-wide questionnaire was distributed via quota sampling to self-identified urban and rural residents (n=212 and n=199, respectively), conducted by a Qualtrics(XM) paid panel service. Questions were presented on a 7-point Likert scale to enable a quantitative analysis of a qualitative questionnaire, with predictor variables selected from current wind turbine health risk debates and discussions in the literature, as well as basic socio-demographic factors. Data analysis is ongoing in SPSS software using bivariate and multivariate correlation, subsequently followed by linear regression with variable inputs selected via a stepwise elimination procedure. The one health stakeholders map was created in kumu.io software to demonstrate multidisciplinary connections with key individuals involved in any aspect of wind turbines.

Although analysis and interpretation are currently ongoing, we are confident our results will be completed by the presentation day, and may convey the importance of considering health risk perceptions as an influential factor in social acceptance of wind turbines. Our study findings may serve to improve wind turbine risk communication to effectively address and mitigate potential health concerns, ultimately promoting social acceptance of wind energy in Canada's continued transition to a low carbon economy. It may also serve to increase awareness and opportunity for interdisciplinary collaborations in the creation of sustainable solutions to the unintended consequences wind turbines pose, highlighting the possible benefits of a one health approach.

## POSTER PRESENTATIONS 1 1C: ONE HEALTH

**Presenter's Name:** Grove, Rachael

**Additional Authors:** Not Applicable

**Abstract Title:** Sensitivity of Ontario's Mercury Fish Consumption Guidelines to Methylmercury Variability

Exposure to methylmercury through the consumption of contaminated fish can lead to a variety of neuromuscular disorders in adults and can increase the risk of still birth and development issues for infants who are exposed in the womb. The Ontario Guide to Eating Fish presents guidelines for the safe consumption of fish in Ontario based on measured tissue contaminant levels, including mercury. These guidelines are calculated using the assumption that all mercury is in the form of methylmercury, however, a 2018 study by Lescord et al. found this assumption to be incorrect for smaller fish which often had lower proportions of methylmercury.

Based on this finding, my project investigated the degree of sensitivity of current Ontario mercury fish consumption recommendations to different proportions of methylmercury. A critical analysis was conducted to determine how the tolerable daily intake (TDI) values used in the consumption guidelines were calculated, and to determine if these values were still current. A sensitivity analysis was also conducted on fish consumption guidelines for white sucker and walleye from several Ontario lakes to determine if lower methylmercury proportions changed the recommended number of meals per month.

It was found that current TDI values primarily draw on data from two studies conducted approximately 20 years ago. It is recommended that further research should be conducted on the human health effects of mercury/methylmercury to determine if these TDI values are still appropriate for use today. The sensitivity analysis revealed that in many lakes, the recommended number of meals per month increased as the percentage of methylmercury decreased, although the degree of change varied among fish species and lakes. Stakeholders who work on topics relating to ecosystem contaminants and human health were also analyzed and many key stakeholders throughout the province were identified. Many individuals in Ontario, especially First Nations communities in Ontario's Far North, rely on fish for a large portion of their diet.

The findings of this study should be taken into consideration when creating future fish consumption guidelines to ensure that the guidelines are based on the most recent information available, and to ensure that the recommended number of meals per month are not being over-restricted due to conservative assumptions.

## POSTER PRESENTATIONS 1 1C: ONE HEALTH

**Presenter's Name:** LaPenna, Ryan

**Additional Authors:** Moyo I, Dawson J, Sabeta C, Foggin C, Olea-Popelka FJ

**Abstract Title:** Using a One Health Approach to Address the Challenges Posed by Rabies at the Dogs-People-Wildlife Interface in Rural Areas in Victoria Falls, Zimbabwe

**Introduction:** Rabies is a viral zoonotic disease spread via the saliva of an infected animal, with 99% of cases as the result of rabid dog bites. Rabies is widespread throughout Zimbabwe and human deaths are reported every year. While the Zimbabwe Department of Veterinary Services is tasked with the diagnosis and control of rabies, this organization lacks adequate resources to conduct dog vaccinations country wide. Thus, it often falls on Non-Governmental Organizations to supplement the government's effort. Victoria Falls (VF) is one such area where a collaboration between the Victoria Falls Wildlife Trust (VFWT) and Veterinarians for Animal Welfare Zimbabwe (VAWZ) have joined forces to carry out rabies vaccinations in rural communities adjacent to the tourist attraction of VF. The main goal of this project is to improve the prevention of rabies in dogs and people as well to improve the care and treatment of people bitten by rabid animals.

**Methods:** A One Health approach will be used working in close collaboration with our research partners in Zimbabwe VFWT & VAWZ. Between October–November 2020, 500 dogs were vaccinated against rabies, sterilized, and blood samples were collected for serology testing to assess levels of antibodies against rabies. One year after the initial vaccination, dogs will be sampled again, and blood will be collected for serology testing to measure rabies-specific protective antibody levels. We hypothesize that at least 70% of dogs will have protective rabies antibodies at first time of sampling, and that dogs will have adequate protective rabies antibodies in 1 year after initial rabies vaccination. In addition, a Knowledge, Attitudes and Practices (KAP) survey among dog owners was implemented to obtain information about the dog demographics, dog husbandry, rabies vaccination history and health behaviours among this community. Serum samples will be processed for rabies antibodies in the laboratory at the University of Pretoria in South Africa.

**Expected Results:** It is expected that the rabies vaccination of 500 dogs in the study area will provide adequate immunity to the dog population to prevent a rabies outbreak in that area. Additionally, it is expected that the collected information by means of KAP questionnaire will improve our understanding of interactions between dogs, people and wildlife in VF rural areas. Through analyzing this information, it will be used to guide a public health campaign for rabies education and awareness, placing children at the centre of this effort.

**Discussion:** The need to apply a One Health approach for rabies control stems from its ability to be transmitted across the dogs-people-wildlife interface. Rural VF represents a unique socio-cultural environment where a One Health action plan to control the spread of rabies requires a multi-disciplinary collaboration of stakeholders to address the challenges rabies poses to dogs, people, and wildlife species in this specific ecosystem. Vaccination of dogs will have a direct impact in preventing rabies among dogs, and thus, preventing human cases. Evaluating the rabies antibody levels in the dog population in rural communities around VF is important to guide the process to re-vaccinate these animals. We are confident this joint and collaborative One Health project will have a positive impact in reducing the risk of rabies both in the dog and in the human population (especially children) in the VF area.

## POSTER PRESENTATIONS 1 1C: ONE HEALTH

**Presenter's Name:** Marshall, Jacklyn

**Abstract Title:** Duntroon Highlands Golf Club Water Conservation Plan

Golf courses impact many aspects of their surrounding environment including the air, water, soil, landscape, ecology, social aspects, economics, and resources. Pesticide use is common, and although regulated, these pesticides continue to migrate to ponds, groundwater, and nearby streams and ditches. Here, they can pose damage to native aquatic and insect life, and potentially pose a danger to our drinking water and human health.

Duntroon Highlands Golf Club is situated within the Blue Mountains Watershed, and water from the course frequently makes its way into Georgian Bay. Due to increasing precipitation events driven by climate change, greater volumes of water are projected to leave the course and enter into Georgian Bay. To mitigate this effect, the amount of water leaving the course must be reduced because this contaminated water is threatening the Georgian Bay ecosystem.

A scoping review was conducted to evaluate our current understanding of the threats that golf courses pose to our surrounding environment and the way that these threats are perceived by the public. A list of key stakeholders in this issue were identified and mapped using Kumu.io software.

The main goal of this project was to determine how much water would need to be recycled to wash the golf carts. Field work was executed measuring the volume of water that is required to perform this task at Duntroon Highlands Golf Club. These results were then presented along with a scoping review and stakeholder map to the Duntroon Highlands Golf Course as well as Greenland Engineering, a company that designs smart water cisterns and focuses on water recycling. This has promoted the development of a construction plan to capture some of this water and redirect it for practical use, thereby reducing both the overall water use and effect of heavy precipitation of flooding and nutrient run-off. This will conserve water use and reduce the course's run-off into the Georgian Bay ecosystem. Further, this will create a positive shift from the perspectives of the course as both a business and a part of the local ecosystem.

Because of Duntroon Highlands' location within the Blue Mountain Watershed, the results of this study provide an example for how other businesses along Georgian Bay can decrease their negative impacts on the people, plants, animals, and shared environment of Georgian Bay.

## POSTER PRESENTATIONS 1 1C: ONE HEALTH

**Presenter's Name:** Nova, Olga

**Additional Authors:** Olea-Popelka FJ, Kiser P

**Abstract Title:** A One Health Approach to Human-Altered Environment Enrichment Effects on Stress Response in Laboratory Rodents

Stress and Environmental Enrichment (EE), the stimulatory supplement to animal housing, have been believed to be closely intertwined for several decades. EE has been found to alleviate symptoms and improve health outcomes. However, with the lack of a consensus in defining 'stress', and given the gap in research, it has not yet been established whether EE, as it pertains to and affects stress, can impact study outcomes.

The animal stress model is directly impacted by human intervention and environmental influence, thus this interdisciplinary issue benefits greatly from a One Health approach, of which a key focus is the connection of stakeholders. As such, this thesis aims to a) study whether environment-associated stress alters experimental outcome and b) identify relevant stakeholders within and outside of the Western University (WU) community. These objectives are satisfied with a targeted literature review exploring stress and EE in publications that study laboratory rodents, a detailed list of identified stakeholders, and a map that visualizes the connections between these individuals and organizations. Relevant publications are identified through a database search of papers published between 1995 and 2020, then categorized by methodology and results. Relevant stakeholders are identified through Google searches and connections within the WU community, then organized using Excel and mapped using Kumu.io software.

The results are currently undergoing analysis and are not yet available but will be ready to be shared at the Pathology and Laboratory Medicine Research Day. The completion of this thesis yields an up-to-date review of current understanding that introduces the human component and highlights the One Health connection.

This thesis will contribute to an underrepresented topic and introduce a vital but novel One Health approach, thereby encouraging collaboration between stakeholders and assisting in bridging the gaps between siloed disciplines.

## POSTER PRESENTATIONS 1 1C: ONE HEALTH

**Presenter's Name:** Obeta, Chikaodili

**Additional Authors:** Olea-Popelka FJ

**Abstract Title:** Knowledge, Attitude and Practices Associated with Zoonotic Tuberculosis in Southwestern Nigeria

Zoonotic tuberculosis (ZTB) is a neglected form of the tuberculosis (TB) disease in humans caused by the bacillus *Mycobacterium bovis*. *M. bovis* is the traditional causative agent of bovine TB (BTB) in cattle and other animals. The negative impacts of ZTB are harmful to public health and the livestock industry worldwide. In 2019, Nigeria accounted for approximately 4.4.% of the estimated TB incident cases worldwide. Challenges posed by ZTB in Southwestern Nigerian communities include a lack of adequate surveillance systems for the pathogen *M. bovis*, poor sanitary and environmental health conditions, lack of knowledge about zoonotic TB and the prevention strategies and the TB associated economic losses in many communities.

ZTB depends on the interconnection of humans, animals, and their shared environment; thus, a One Health approach is necessary to address the diagnosis, prevention and treatment challenges of the disease. The main goal of this research project is to evaluate the knowledge, attitude and practices about ZTB in Southwestern Nigeria. Reviewing the awareness, attitudes and risk factors of zoonotic diseases is very critical in facilitating a collaborative One Health approach towards the development and successful implementation of appropriate ZTB prevention and control strategies in communities.

To do this, firstly, I will be conducting a literature review of published research articles on ZTB in Southwestern, Nigeria. Secondly, based on the literature review findings, I will be developing an interviewer-administered knowledge, attitude and practices (KAP) survey to be used for the One Health Initiative Project in the Ibarapa Meje region, Oyo State, Nigeria. I will also be identifying and visually 'mapping' key ZTB stakeholders.

In doing this, I hope to further understand the complex factors driving the spread of ZTB in Southwestern Nigerian communities as well as to provide base information that will be disseminated to the vital ZTB stakeholders in Nigeria across different disciplines and can be used to promote collaboration aimed at addressing the ZTB challenges.

## POSTER PRESENTATIONS 1 1C: ONE HEALTH

**Presenter's Name:** Osuji, Ebuka

**Additional Authors:** Osuji E, Suskin N, Prior PL, Olea-Popelka FJ, Frisbee JC, Frisbee SJ

**Abstract Title:** A One Health Approach Investigating Relationships between Anxiety Sensitivity and Patient Outcomes in a Cardiac Rehabilitation and Secondary Prevention Program

**Introduction:** The Cardiac Rehabilitation and Secondary Prevention Program (CRSP) is an exercise-based program, supervised by a multitude of certified clinicians, aimed at improving ones' cardiovascular health. Currently across Ontario, a substantial majority of patients who are referred to CRSP do not complete the program. Many factors can be associated with the low rates of participation and completion of CRSP such as system-level barriers and patient-level factors. The One Health Approach will be used and demonstrated by investigating relationships between human health, environmental health, and animal health. The objectives of my study are to: (1) investigate relationships between psychological factors, social environmental factors, exercise behaviour, and CRSP-related therapeutic and health outcomes; and (2) to identify and map relevant/key stakeholders, as a multidisciplinary and collaborative approach will be key in optimizing clinical health outcomes within CRSP.

**Proposed Methods:** Individuals that have been appropriately referred to the clinic and have never attended a CRSP program will be eligible to participate in this study (remotely) – with a target enrolment of 300 patients. A series of self-reported surveys will be completed at 5 different time points which assess the exercise behaviour and specific psychological traits of participants. Key stakeholders will then be identified and mapped using the “Kumu” application.

**Discussion:** Historically, One Health has primarily focused on infectious and zoonotic diseases. The focus of my thesis is to investigate how the “One Health Approach” can also be applied to non-infectious diseases including, but not limited to, cardiovascular disease. The results of this study will benefit future research when trying to identify a therapeutic target, with efforts to improve the participation in, completion of, and clinical outcomes from CRSP programs universally.

## POSTER PRESENTATIONS 1 1C: ONE HEALTH

**Presenter's Name:** Parlatan, Lara

**Additional Authors:** Meng D, Kingsley J, Frisbee SJ

**Abstract Title:** The Impact of Smoking on Achieving Exercise Goals in Patients Participating in a Cardiac Rehabilitation and Secondary Prevention Program

Cardiac rehabilitation and secondary prevention (CRSP) is an evidence-based, cost-effective outpatient program intended to improve health and functioning and reduce risk of future disease events for patients diagnosed with cardiovascular disease (CVD), including those who have recently experienced a cardiac event (i.e., heart attack, surgery or device implantation). Two fundamental pillars of CRSP programs are supported smoking cessation (SSC) and increasing the achievement of exercise capacity and activity, defined as an increase in 0.5 metabolic equivalents and an achievement of 150 minutes of physical activity per week, respectively. Despite the importance of achieving both of these therapeutic goals, little is understood about the relationship between smoking and exercise and attaining successful outcomes by patients participating in CRSP. Therefore, the goal of this current study is to examine the role smoking plays in the achievement of exercise goals in CRSP.

To investigate this research goal, we conducted a retrospective-observational-cohort study of patients participating in CRSP at the Central East Local Health Integration Network in Ontario, Canada, between 2012-2019. REB approval was obtained, at both the Scarborough Health Network and the Western University HSREB, to conduct a secondary data analysis of patient health information maintained in the region-wide patient management system. It is estimated that approximately forty-thousand patients were referred to CRSP between 2012-2019 and will form the basis of the analysis in this current study.

As part of their intake evaluation, patients self-reported their smoking status; this information will be used to stratify patients into smoking and non-smoking patients, and smoking patients will be further stratified into those who accept SSC and those who refuse. The proportion of patients who achieve the measured exercise outcomes by the end of the CRSP program will be analyzed for each group (non-smoking patients, smoking patients involved in SSC, and smoking patients not involved in SSC).

Additional patient factors, including socio-demographic and health factors, will also be evaluated. It is hypothesized that patients who accept SSC as part of their six-month CRSP program will have better exercise outcomes than those patients who participate in CRSP but do not accept SSC. As well, non-smoking patients will have better exercise outcomes than smoking patients.

The significance of this research lies in understanding if and how SSC can improve CRSP outcomes for care decision making. For example, it may be necessary to invest resources to develop more individualized care plans for smoking patients within CRSP, so that they are better able to achieve successful exercise outcomes and overall improvements to their health. Better CRSP outcomes will reduce the likelihood of CVD progression, leading to a better quality of life for the individual. At a societal level, better CRSP outcomes lead to a decrease in the financial and health care burden of CVD.

## POSTER PRESENTATIONS 1 1C: ONE HEALTH

**Presenter's Name:** Prajapati, Rahil

**Additional Authors:** Toyon A, Chang-Kit B, Frisbee SJ

**Abstract Title:** Evaluating Quality Indicators (QIs) and Outcomes of Care in Diabetic and Non-diabetic Patients enrolled in Cardiac Rehabilitation and Secondary Prevention (CRSP) programs within the Central East Local Health Integration Network (LHIN)

Diabetes mellitus is one of the world's largest global health challenges of the 21st century. Patients with diabetes have increased risk factors for cardiovascular disease (CVD), resulting in elevated morbidity and mortality. Cardiovascular Rehabilitation and Secondary Prevention (CRSP) programs are known as the "standard of care" for CVD patients and effectively reduce CVD morbidity and mortality. However, CRSP is generally underutilized and importantly, the care is not standardized resulting in a lesser benefit to morbidity and mortality rates. Quality indicators (QIs) and outcome measures have been developed by Grace et al., 2014 to aid in standardizing CRSP patient care by evaluating the quality of care which can be used to bridge gaps in CRSP patient care to further reduce CVD morbidity and mortality.

This study aims to evaluate the quality and outcomes of care provided specifically to diabetic patients enrolled in a CRSP program to evaluate whether patient care matches the increased risk faced by these patients. We will characterize the health profile of diabetic patients in CRSP programs and identify variation in outcomes of care compared to non-diabetic patients through a comprehensive literature review.

Data collected from the Scarborough Health Network (SHN) CRSP program in Central East Local Health Integration Network (LHIN) will be used to compare quality indicators and outcome measurements between diabetic and non-diabetic patients enrolled in CRSP to evaluate their quality of care. Variation in QIs and outcome measurements over time between the two populations will also be considered. Data will be analyzed through various statistical methods including student's t-tests, analysis of variance (ANOVA), and multivariable linear regression. Although we expect quality indicators to suggest that the quality of care between diabetic and non-diabetic patients is similar, it is expected that outcomes of care are overall lower in diabetic compared to non-diabetic patients. This is implicated by a sedentary lifestyle and higher BMI, characteristic of diabetic patients. A decrease in quality of care over time in diabetic patients is also expected due to the increasing prevalence of diabetes worldwide resulting in an increased workload on healthcare providers.

Although there has been extensive research into specific outcome measures in diabetic patients such as exercise capacity, or specific CVD conditions such as coronary heart disease, there are few to none evaluating quality of care and a wide variety of outcome measures. This study will be the first to holistically evaluate quality indicators and outcome measures in a diabetic population enrolled in CRSP. Results from this study may be used to target areas of weakness and to improve the quality of CRSP care in the diabetic population, with the goal of significantly reducing morbidity and mortality from diabetes and CVD. This study may also spark interest from other groups worldwide to evaluate quality of care and improve CRSP programs for better patient outcomes. Currently, primary no data from SHN has been evaluated yet, thus most of the presentation may instead be relevant to a scoping review of the current literature regarding diabetic patients' outcomes in CRSP our team is conducting.

## POSTER PRESENTATIONS 1 1C: ONE HEALTH

**Presenter's Name:** Weppler, Natasha

**Additional Authors:** McKinley G, Olea Popelka FJ

**Abstract Title:** Land-Based Therapy: How it Affects Indigenous Well-Being and Mental Health in Canada, New Zealand, and Australia

**Purpose:** Indigenous peoples face significant health disparities, especially regarding mental health. Mental health policy and programs need to be informed by a One Health approach that understands not just epidemiological evidence, but also community ideals. Land-based healing opportunities are a common practice in Indigenous communities. Land-based healing intertwined Indigenous traditions and culture to address mental health in conjunction with an environmental approach that acknowledges the profound relationship between Indigenous peoples and the Land. By critically analysing evaluated programs, this scoping review identifies the strength of these programs. This review looks at each program and evaluation critically to identify not only the results of the land-based therapies but also to identify research gaps.

**Methods:** To describe how land-based technology affects the mental health of indigenous peoples a scoping review will be performed to identify key research within the scientific literature. We will use key inclusion criteria to identify the success of these evaluated programs.

**Results:** Our results show that overall, there is a lack of research being done on Indigenous mental health in general, as well as how land-based therapy affects Indigenous mental wellbeing. The scoping review included searches across 15 different scientific websites and less than 20 articles evaluating land-based programs were identified.

**Discussion:** These findings show a significant gap in scientific research regarding Indigenous mental wellbeing. The general results of these evaluated programs showed success in land-based therapies but since so few scientific evaluations have been performed and the large variety in programs, it is difficult to come to a complete consensus on the success of land-based therapies.

# POSTER PRESENTATIONS 1

## 1C: ONE HEALTH

**Presenter's Name:** Zhang, Joel

**Additional Authors:** Leseni T, Olea Popelka FJ

**Abstract Title:** Evaluation of healthcare facilities and services provided for tuberculosis and zoonotic tuberculosis in Kajiado County, Kenya

**Introduction:** Tuberculosis (TB) remains the leading cause of death globally from a single infectious agent. An estimated 10 million people develop active TB and 1.6 million die from TB annually. While *Mycobacterium tuberculosis* (*M. tb*) is the primary infectious agent causing TB in humans, *Mycobacterium bovis* (*M. bovis*), the causal agent of bovine TB, can also be transmitted to humans, causing zoonotic tuberculosis (ZTB). Oral transmission via raw dairy products poses the highest risk for ZTB, however, consumption of undercooked meat containing *M. bovis*, or inhalation of aerosolized particles containing *M. bovis* can also cause ZTB in humans. In Kenya, specifically, in Kajiado County, the Maasai ethnic group is at an increased risk of ZTB due to their socio-cultural-economic practices and close interdependence with animals.

**Goal and Objectives:** The overarching goal of this project is to use the One Health approach to improve prevention, detection, and control of TB/ZTB among rural communities in Kajiado County, Kenya. To accomplish this goal, this project has four specific objectives: 1) quantify and categorize the number of TB and ZTB rural healthcare facilities in Kajiado, 2) evaluate healthcare facilities' TB and ZTB screening and diagnostic capacity 3) evaluate anti-microbial treatment provided and protocols in place for TB and ZTB cases, and 4) evaluate knowledge, attitudes, and practices (KAP) regarding TB and ZTB among healthcare workers at these healthcare facilities.

**Methods:** Through collaboration with Talaku (a Community Based Organization in Kajiado county), and in partnership with the National TB programme and Ministry of Health in Kenya, a survey will be designed and implemented to evaluate key aspects of healthcare facilities and KAP among healthcare workers. Talaku will co-ordinate members of the community who will deliver the survey and conduct in-person interviews and focus group discussions. Approximately twenty-five healthcare facilities in rural Kajiado will be included in this project.

**Expected Results:** Geospatial information on healthcare facilities will be obtained and complemented with counts of TB and ZTB cases, which will be analyzed to evaluate the current logistics and needs in this specific community related to the prevention, diagnosis, and treatment of TB and ZTB.

**Significance:** The outcomes of this will positively contribute to identify gaps in knowledge, attitudes, and practices associated to the current logistics and infrastructure available to prevent, detect, and control TB and ZTB among the Maasai community. Secondly, this project will increase awareness and knowledge regarding TB and ZTB among healthcare workers. Furthermore, the knowledge generated from this project will be used to inform the design and implementation of public health campaigns specifically targeted to the Maasai community of Kajiado county. Ultimately, we are confident that by using the One Health approach, this project will become a model that can be utilized in other areas of Kenya, and other African countries in which marginalized and rural communities face similar socio-cultural-economics factors driving TB and ZTB at the animal-human interface.