

# Sisseton-Wahpeton Tribal Research Office

## Current Research Projects on the Lake Traverse Reservation

1. **“Dissemination, Implementation, and Evaluation of Native STAND in American Indian Communities”**

Project PI: William Lambert, Ph.D.

TEP: VMYC

Permit Expiration date: 9/20/2018

This project will disseminate and implement an evidence-based culturally-specific curriculum to reduce high-risk behaviors in AI/AN teens.

2. **“Preliminary study on the socio-economic factors affecting microbiome, nutrition, and health outcomes in American Indian population”**

Project PI: Joy Scaria, Ph.D.

TEP: Diabetes Center

Permit Expiration date: 7/30/2020

Disparities of health exist among the members of Native American populations. We hypothesize that health gradients are present among the members of the American Indian community in South Dakota and it is likely impacted by socio-economic status and dietary habits. Recent research on human gut microbiome reveals that the microbial diversity in the gut has profound effect on health. Our overall goal in this study is to analyze the relationship between socio-economic status and dietary habits and to determine whether this has an impact on digestive health measured using microbiome diversity in fecal samples. Data for the research will be collected through survey instruments and fecal sample collection. Findings from our research will influence the policy discourse on topics related to the economic and social well-being of the American Indian population.

3. **“Examining Matriculation, Transfer, and Capabilities of Tribal College Students in the form Educational Opportunities”**

Project PI: Francis Arpan, Ph.D.

TEP: SWC

Permit Expiration date: 7/31/2021

The percentage of Native Americans with bachelor's degrees falls way behind the percentage of people in the general population. The project will examine matriculation, transfer, persistence, and capabilities of Native American students in the form of educational opportunities. The research will also examine how students' decisions in higher education are affected by barriers, motivating factors, and the educational opportunities available to them. The approach is concerned with social justice and working to increase individual and community capabilities and the proposed research, when finished, can be applied by Sisseton Wahpeton College as they work to increase student success and capabilities in the community. Within the framework of the proposed research project is a student research component that is designed to present SWC student researchers with the opportunity to gain knowledge in methods, analysis, and reporting.

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**List updated 4/25/23**

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4. **“Ignite: Community Based Participatory Research (CBPR) Model in preventing overweight and obesity among 6th – 8th grade youth in low-income racial/ethnic communities”**

Project PI: Kendra Kattelman, Ph.D., RD, LN, FAND

TEP: ESDS

Permit Expiration date: 11/02/2018

This project proposes to use a quasi-experimental design to determine the effectiveness of the CBPR Model to assist communities in identifying behavioral and environmental factors that influence overweight and obesity in 6th-8th grade youth in selected communities; and engaging selected communities to implement effective and sustainable strategies to increase dietary intakes of fruits and vegetables; increase the variety of vegetables in the diet; decrease dietary intakes of foods high in solid fats and added sugars; and increase physical activity among 6th-8th grade youth. One intervention and one control community were selected in South Dakota to participate in this project. An assessment tool was developed to help give a clear picture of the barriers to healthy eating and physical activity among 6th-8th grade youth.

5. **“Effectiveness of Pregnancy Health Research Dissemination”**

Project PI: DenYelle Kenyon, Ph.D.

TEP: THA

Permit Expiration date: 4/05/2020

This study will evaluate previous work done through a partnership between Sanford Research and the Sisseton-Wahpeton Oyate (SWO) health education team. In 2015, SWO conducted a Pregnancy Health Survey and, recently, Sanford Research staff have been working with SWO to disseminate key findings to the SWO community through infographics. This study will evaluate these infographics and determine if the approach taken was effective in informing and educating the community. To do this, members of the SWO First 1000 Days Initiative Interagency Forum will be sent an online survey to explore their thoughts and use of the infographics in their work to educate women and men of childbearing potential. Additionally, two focus groups will be conducted with SWO community members to gain feedback on the infographics. The SWO health education team will assist with data interpretation once the analysis is complete and work with the research team to disseminate the findings through reports and infographics. The findings from this study will help inform SWO programs on effective ways to communicate with SWO community members. Additionally, the results may be used to inform future researchers on appropriate dissemination methods.

6. **“Will Tai Chi Decrease the Number of Elder Falls and Increase Strength in the Sisseton Wahpeton Oyate Elder Population?”**

Project PI: Veronica Leaf-Bellile, BS

TEP: TCH

Permit Expiration date: 12/18/2020

Abstract: Local clinic data identifies elder falls as the number one unintentional injury for the Sisseton Wahpeton Oyate elders. This project seeks to identify two aspects of fall prevention efforts for tribal members: 1) the effectiveness of Tai Chi for Fall Prevention classes, measured by improvements in strength among class participants and by reduction in fall incidents; and 2) an assessment of existing services the Sisseton Wahpeton Oyate offers (and opportunities for additional services) to assist in the prevention of elder falls. Based on data collected (through questionnaires and interviews) and analyzed, and a literature review of evidence-based practices for fall prevention, the project will include recommendation for enhancing existing Tai Chi for Arthritis for Fall Prevention classes, and recommendations for considering opportunities to address gaps/overlap for fall evidence-based fall prevention programs for the Sisseton Wahpeton Oyate elder population.

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7. **“Relapse Factors and Prevention on the Lake Traverse Reservation”**

Project PI: Alana Little Bird, AA

TEP: Behavioral Health

Permit Expiration date: 6/29/2022

Based on information that is available from the treatment entities that exist in our community, there is no current way to identify the leading causes of relapse. Our organization intends to use the research data to establish better strategies for people that are freshly discharged from treatment facilities. To accomplish this goal, we will use qualitative research methods, more specifically semi-structured interviews, which will provide a deeper perspective on which factors of relapse have the most impact on individuals. By seeking out individuals who have relapsed and who are willing to participate in the study, we may be able to obtain valuable information that will form the basis of an effective aftercare program.

8. **“Strengthening and Encouraging Families (SEF)/Great Plains Tribal Maternal, Infant, and Early Childhood Home Visiting Rigorous Program Evaluation Plan”**

Project PI: Christy Hacker, MPH

TEP: THA

Permit Expiration date: 03/23/2022

The evaluation will explore the feasibility of a moderation model examining whether receiving home visiting services (as measured by the number of home visits received, connection to community resources, number of Family Spirit Lessons, social support, and recruitment and engagement efforts) helps buffer the relationship between parenting stress and parent self-efficacy. While this evaluation uses a non-experimental design, we can begin exploring this model using mixed methods to examine how exposure to home visiting supports families in addressing parenting stress and improving parenting self-efficacy. The qualitative component of our design will help further explore the processes by which home visiting can help to address parenting stress and self-efficacy. We will also examine whether previous findings from the literature suggesting there is a direct relationship between parenting stress and self-efficacy can be generalized to our tribal home visiting population.

9. **“Sisseton-Wahpeton Oyate Youth’s Understanding of Sex Trafficking”**

Project PI: Tracey McMahon, MS

TEP: VMYC

Permit Expiration date: 06/29/2022

The Sisseton Wahpeton Oyate (SWO) Youth Department is conducting a study on SWO youth’s understanding of sex trafficking. The purpose of this study is to learn more about local youth’s understanding of sex trafficking. Information gathered from these focus groups will be used to inform the development and expansion of sex trafficking educational programming and victim services available for SWO youth.

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## 10. “Tipsinna: A Significant Plan to the Dakota”

Project PI: William Crawford, BS

TEP: DLI

Permit Expiration: 11/5/2022

The native plants of the northern plains once grew in abundance, and edible plants were widely available for harvesting. The Dakota people have always had a strong connection to the land and the life that grows with it. However, within the past two centuries, tribal lands in the northern plains have decreased in size. Simultaneously, the availability of some native plants has also declined. This may be due to the lack of environmental policies to protect or sustain native prairie plants. There is an increase in cropland, which decreases the land available for native plants. In order to examine this claim, this research will investigate one native plant that is important to Dakota people: tipsinna in the Dakota language, or *Psoralea esculenta* (common names: prairie turnips, breadroot, scurfpea, and pomme de terre). It is culturally important for the Dakota people to determine the various causes of the decreased availability of this plant, whether they are human-related or climate-related. Another threat to this plant's availability is overharvesting or improper harvesting, which can be an effect of a decrease in the transmission of traditional knowledge. In order to investigate this claim, this research will also look into the type of knowledge that is still held on the Lake Traverse Reservation of the Sisseton Wahpeton Oyate.

## 11. “Assessment of PFAS in Tribal and Rural Communities within North Dakota”

Project PI: Alexa Azure, MS

TEP: OEP

Permit Expiration: 11/5/2022

Poly- and perfluoroalkyl substances (PFAS), also known as “forever chemicals”<sup>1</sup> are reported by the Center for Disease Control and Prevention (CDC) to be detectable in the blood of 98% of all Americans<sup>2-4</sup>. Recently the pervasiveness of PFAS on tribal lands was one of multiple focuses of a 2020 Webinar Series titled “Water in the Native World” that was hosted by University of Arizona Superfund Research Program<sup>5</sup>. The current health advisory limit established by the EPA is 70 parts per trillion (ppt) for Perfluorooctanoic Acid (PFOA) + Perfluorooctanesulfonic Acid (PFOS).<sup>6</sup>

To determine contamination within tribal communities, samples will be collected from locations of interest within the boundaries of tribal nations. The samples will be analyzed by Pace Analytics utilizing EPA Method 537.1. The relevant raw data for each tribe will be provided to each respective tribe. The sampling locations will be determined by the PI and the tribal Environmental offices.

## 12. “Impact of a Pharmacist Run Clinic on Diabetes Management at an IHS Clinic”

Project PI: Jacob Kocher

TEP: WWKMHC

Permit Expiration: 9/26/23

The primary objective of this public health surveillance project is to examine individuals change from baseline HbA1c after 3 to 6 months of guideline directed antidiabetic therapy. This will help patients at Woodrow Wilson Keeble Memorial Healthcare Center (WWKMHC) to achieve a HbA1c goals and improve patient health outcomes.

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**13. “Barriers to Seeking Prenatal Care for Sisseton-Wahpeton Oyate Mothers: A Qualitative Study”**

Project PI: Wahleah Watson

TEP: Tribal Health Administration

Permit Expiration: 3/21/24

To conduct a qualitative study to examine what barriers may exist for expecting and first-time mothers seeking prenatal care services on the Lake Traverse Reservation. Key informant interviews will be conducted. The results of the study will assist healthcare professional members of the Young Child Wellness subgroup and First 1,000 Days team to develop strategies and create or alter programs and support to increase prenatal visits and healthy pregnancies.

**14. “Indigenous Responsive Teaching and Pedagogy”**

Project PI: Demi DuMarce

TEP: N/A (Exempt-Limited Review)

Permit Expiration: 3/07/24

The overall purpose of this research is to investigate preservice teachers' responses to an innovative workshop and field experience based on a newly developed Indigenous Responsive Teaching and Pedagogy (IRTP) framework. The specific research questions are:

RQ1: How do prospective preservice teachers describe their experiences in the tribal school classroom and IRTP workshop?

RQ2: How does participation in the IRTP innovation inform prospective preservice teachers' beliefs about Indigenous students and appropriate teaching practices

Since teacher preparation programs do not explicitly address the unique barriers, experiences and histories of Indigenous students, the goal of this research is to assist non-Native teachers in the transition from their teacher education programs to teaching Indigenous students. This will better prepare non-Native teachers to teach Indigenous students in a tribal school setting. There are no past studies that suggest any risk to participants.

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