


# **Strong Men, Strong Communities**

## **Diabetes Prevention for Native American Men**



This project is funded by grant R01 DK102728 National Institutes of Diabetes, Digestive and Kidney Diseases.

# Project Team



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Principal Investigator – Ka`imi Sinclair, PhD, MPH,  
Washington State University


Portland Site Project Lead – Kelly Gonzales, PhD, MPH,  
Portland State University

Peer Educator – Patrick Eagle Staff, M.Ed, Ed.D, doctoral  
candidate, Education - PSU


Recruiter/Assessor – Theodore Latta, MA, Community  
Psychology student

Recruiter/Assessor – Jerome Sloan, BS, MSW student -  
PSU


# Background

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- American Indian (AI) males experience profound health disparities
  - Compared to White men, AI men are more likely to be obese (39% vs. 25%) and physically inactive (54% vs. 45%).
  - AI men have the highest age-adjusted prevalence of type 2 diabetes (~18%) among U.S. men compared to non-Hispanic White men - who have the lowest (~7%).
  - The age-adjusted diabetes death rates in AI men are now almost twice the estimates in White men


# Background

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- Recruiting AI men in clinic-based programs is difficult because they tend to seek clinical care less often than women and present with more advanced disease.
  - AI men's perceptions of normative health behaviors and gender roles may also discourage participation.
    - Relevance of Program
    - Cultural safety of the program
    - Perceived experiences of judgement or discrimination
  - Participation by AI males in lifestyle interventions, including the DPP and SDPI-DP, is low and almost always substantially less than 50%.

# Addressing Diabetes these Disparities

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- **Urgent need for diabetes risk reduction programs tailored to the unique values and habits of AI men, with a particular focus on recruitment and retention.**
  - For the Strong Men, Strong Communities program
    - We will use a wait-list control design and proceed in 2 phases
    - First phase - Focus groups / Second phase - intervention
      - Intervention: we will recruit 240 non-diabetic AI men aged 21-65 years who have BMI  $\geq 25$  kg/m<sup>2</sup>.
      - AI men will be recruited in 3 sites for a total of 80 men in each site over 2 years.
      - Culturally adapt the Diabetes Prevention Program curriculum and combine it with local, culturally relevant activities to enhance recruitment and retention.


# Specific Aims

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1. Refine the SMSC intervention in response to feedback from focus groups in our 3 partner communities.
  1. Compare change in diabetes risk scores (primary outcome) and modifiable diabetes risk factors (secondary outcomes) between the intervention and wait-list control groups.
  1. Evaluate the ability of SMCS to retain 80% of 240 AI male participants aged 21-65 years with no previous diagnosis of diabetes.

# Measurements

- We will collect data about dietary and physical activity behaviors, blood pressure, height, weight, a fingerstick of blood for blood glucose and cholesterol, a urine sample, and perform a 6 minute walk to assess physical functioning.
- Each participant will be assessed at baseline, 6 months (immediately after the intervention), 9 months (after the maintenance sessions), and finally at 12 months post baseline.
- Each participant will receive \$25.00 for completing each of the 4 assessments.

# Curriculum for Diabetes Prevention

- 
- Community-based, culturally informed approach for AI men for diabetes prevention
  - Focus on modifiable diabetes risk factors
    - Weight loss and increased physical activity
  - Methods adapted from successful, non-clinic based programs for other high-risk priority populations to promote healthy eating and physical activity
    - incorporates elements of the DPP and SDPI-DP
    - “men’s group” format to promote traditional Native lifestyles



# Project Sites



# **Strong Men, Strong Communities**


## **Diabetes Prevention for Native American Men**




### **Initial Stages – Focus Groups**

This project is funded by grant R01 DK102728 National Institutes of Diabetes, Digestive and Kidney Diseases.

# Initial Stages – Focus Groups to Inform Approaches

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- Three focus groups
  - December 21-22, 2017
  - Survey – demographics, eating and physical activity behaviors, social support
  - \$50 gift card & food

# Focus Group Guide

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- Facilitators and challenges to healthy eating, physical activity, and weight loss
  - Perceptions of masculinity and effects on eating and activity habits
  - Activities men would be interested in doing via project
  - How Native men could support each other to increase physical activity and eat healthier to lose weight
  - Information and resources needed that could help Native men eat healthier to maintain a healthy weight



# Results

## Characteristics of focus group participants (n=27)


<b>Age; mean (sd)</b>	36	(11)
<b>Education</b>	<b>n</b>	<b>(%)</b>
High School/GED	7	(26)
Some College	13	(48)
College Graduate	7	(26)
<b>Marital Status</b>	<b>n</b>	<b>(%)</b>
Never Married	15	(56)
Currently Married	5	(18)
Divorced/Widowed/Separated	7	(26)
<b>Employment Status</b>	<b>n</b>	<b>(%)</b>
Working full time	11	(41)
Working part time	4	(15)
Not working	12	(44)
<b>Self-reported Health Status</b>	<b>n</b>	<b>(%)</b>
Poor	0	(0)
Fair	8	(30)
Good	15	(55)
Very Good	4	(15)
Excellent	0	(0)

# Quotes - Eating




- Food is medicine
  - Connects us
    - our ways, teachings, each other, strengths, healing, prevention
    - Grandparents are the connectors
  - Poverty, Access and Stress interrupt the connections with food
    - Eating healthy at young ages
    - High processed foods, sugar, easy to get and prepare, feeds a lot of people
      - Anything healthy is better than nothing healthy

# Quotes - Exercise


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- Connect to traditional activities
    - Hunting & Fishing licenses
    - Connect with members in the community engaged with these activities
  - Competition
    - Gym membership
    - Tournaments (basketball)
  - Helpful to stress and engagement

# Quotes – Masculinity & Men's Roles

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- Respect – for self, each other, community, our ancestors
    - A provider
      - Accountable for your actions “someone is watching you how you act and listening to your words”
      - Help out “hold up the edges”
      - Inter-generational connections to past, present and future
        - Values guide us and connect us
        - Draw on community strengths



# Recommendations

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- Link the activities to “our lives”
  - Positivity and strengths based
    - Build on our successes, even if its small
    - Overcoming patterns driven by fear, scarcity mindset that may relate to experiences of food insecurity
    - Support through laughter, sharing experiences like drumming, and creating spaces that are trauma informed and respectful
      - Best selves

# Next Steps

- Year 1 (of 2 years)
- May
  - Staff Training, Recruitment of Participants, and Networking with Community-based Partners to Promote and Collaborate
  - Program planning for cultural activities to enhance recruitment and retention
- June
  - Assessment of Eligibility Criteria for Participation
- July – Sept
  - Implementation of the 10-week Diabetes Prevention Curriculum and On-Going Cultural Activities



**Thank You!**