

Future Directions in Indigenous Health Research

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CENTER FOR
INDIGENOUS HEALTH



JOHNS HOPKINS
UNIVERSITY

Anpetu Was'te Mitakuyapi

Good Day
All of my Relatives



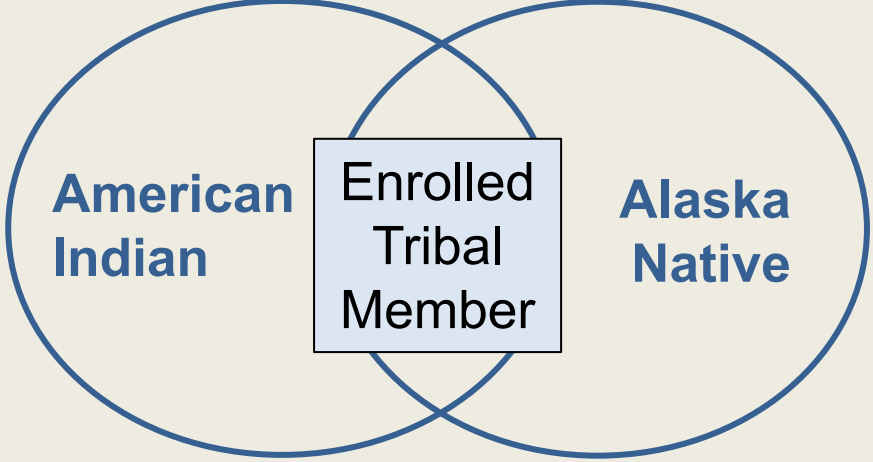
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Overview



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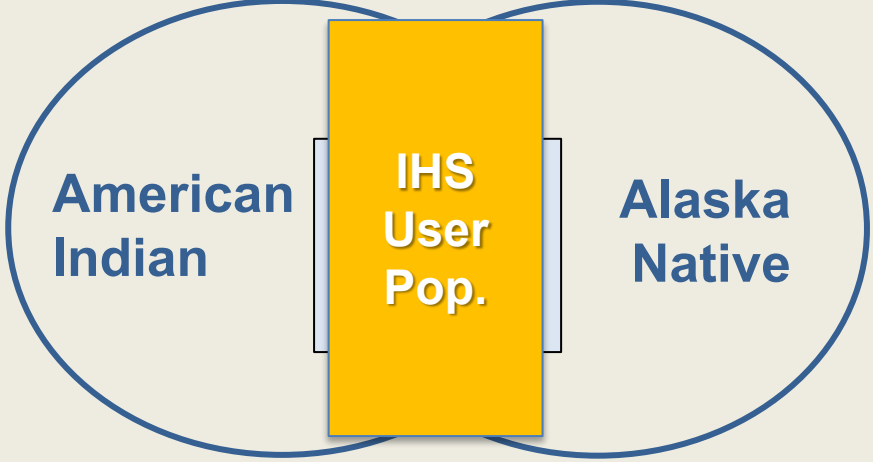
- Historic and holistic roots of health inequities
- Challenges and approaches to studying Traditional Indigenous Medicine (TIM)
 - Defining TIM and its role, history, complexity, diversity
- Is the RCT the best approach? Do we need to consider new methodologies?
- Indigenous Methodologies
- Increasing Indigenous participation in clinical research
- Capacity building for Indigenous-led clinical trials centers
- Data sovereignty
- Need for more Indigenous researchers, more PhD and DrPH programs
- Indigenous School of Healing Arts & Sciences

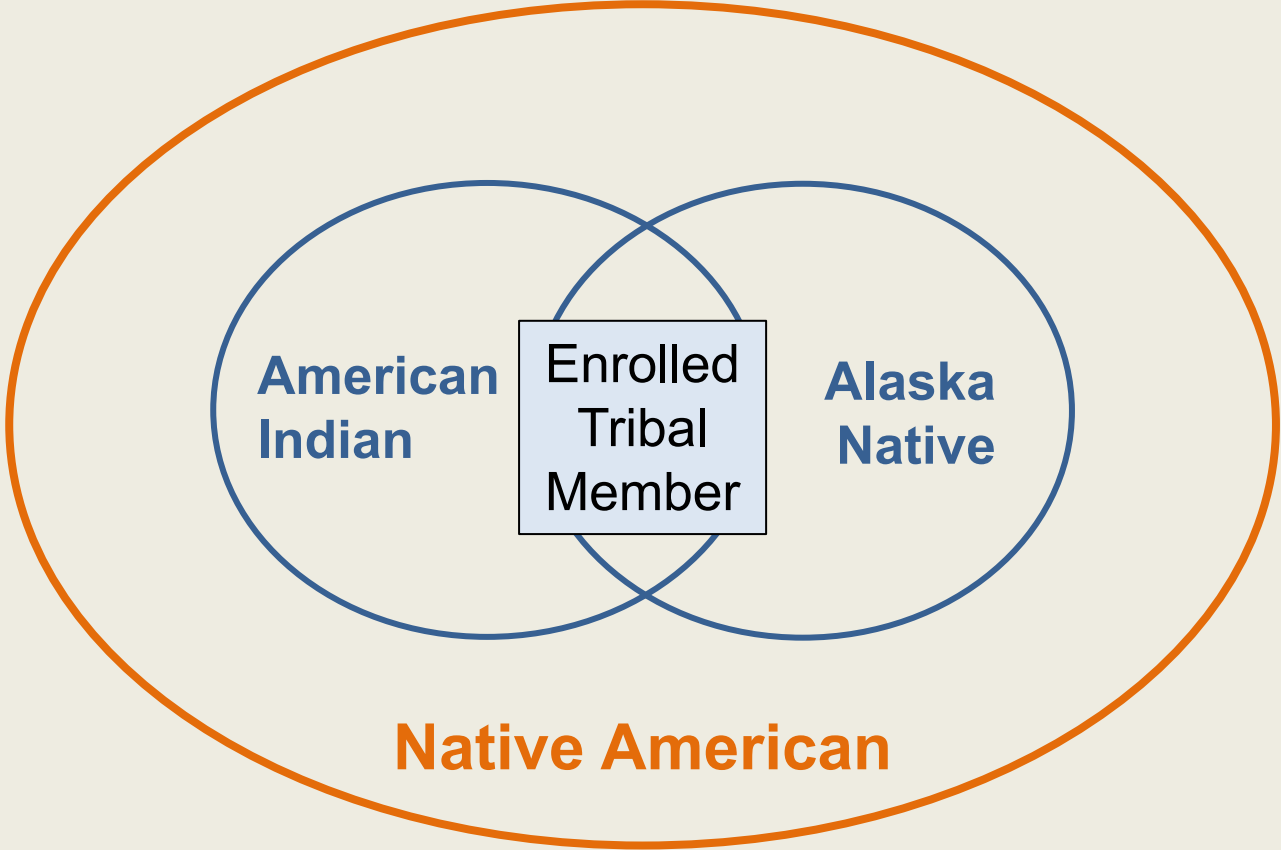


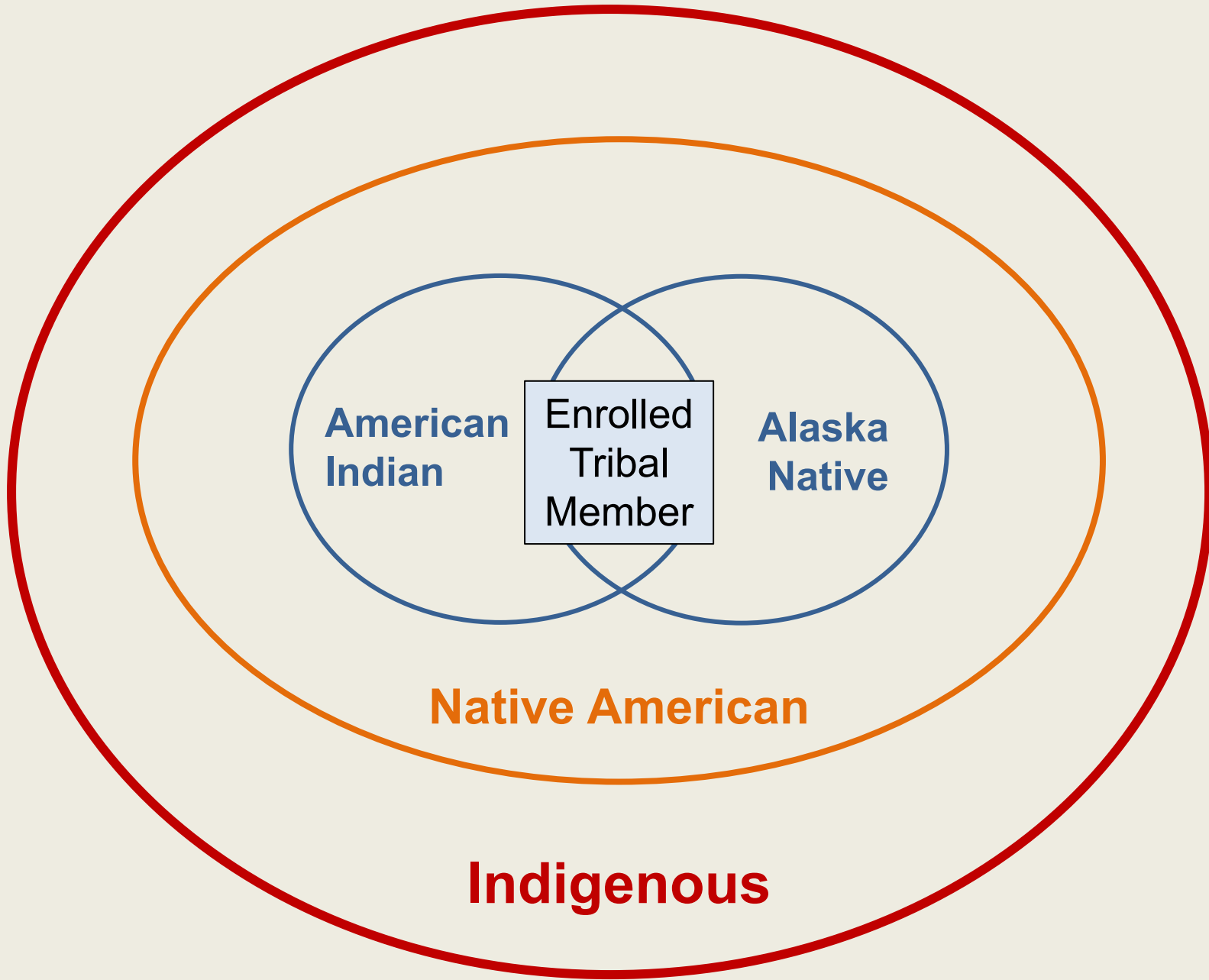
**American
Indian**

**Enrolled
Tribal
Member**

**Alaska
Native**







**American
Indian**

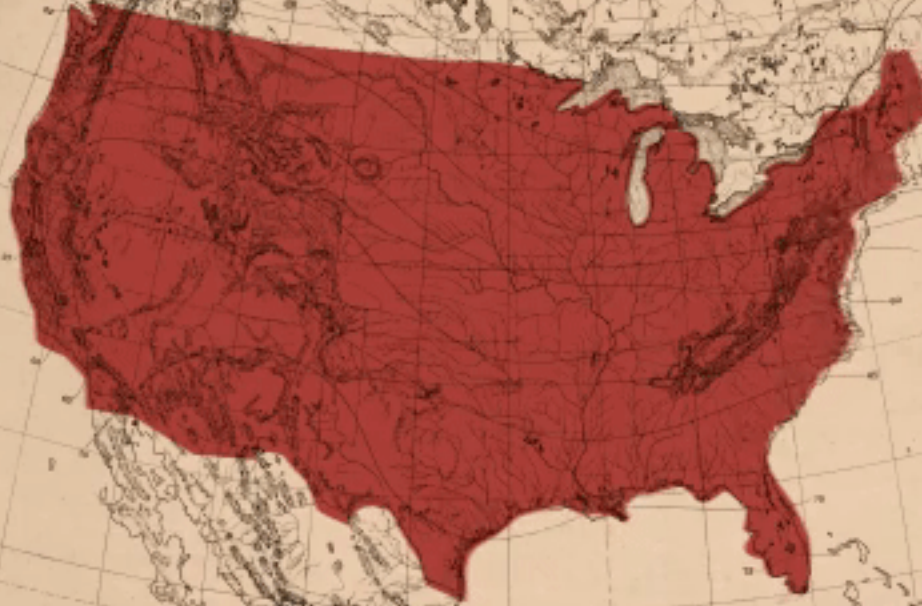
**Enrolled
Tribal
Member**

**Alaska
Native**

Native American

Indigenous

1776



NORTH AMERICA

A MAP FOR ILLUSTRATING BY COLONEL
THE GEOGRAPHICAL DISTRIBUTION OF LIFE
PREPARED FOR THE BIRD SOCIETY OF AMERICA
BY WALTER S. KENNEDY

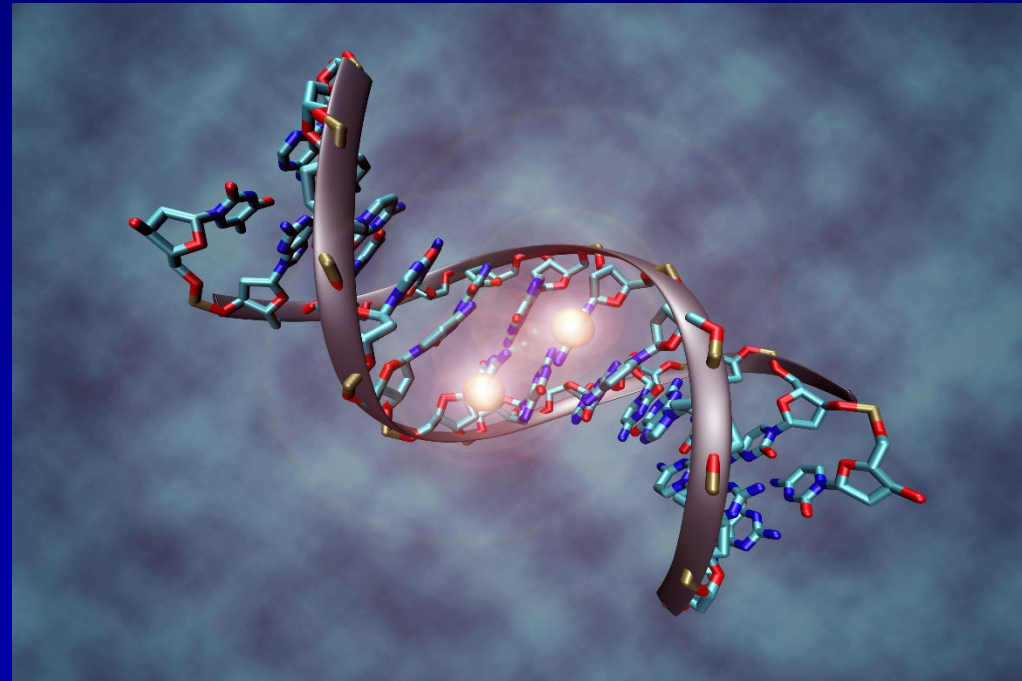


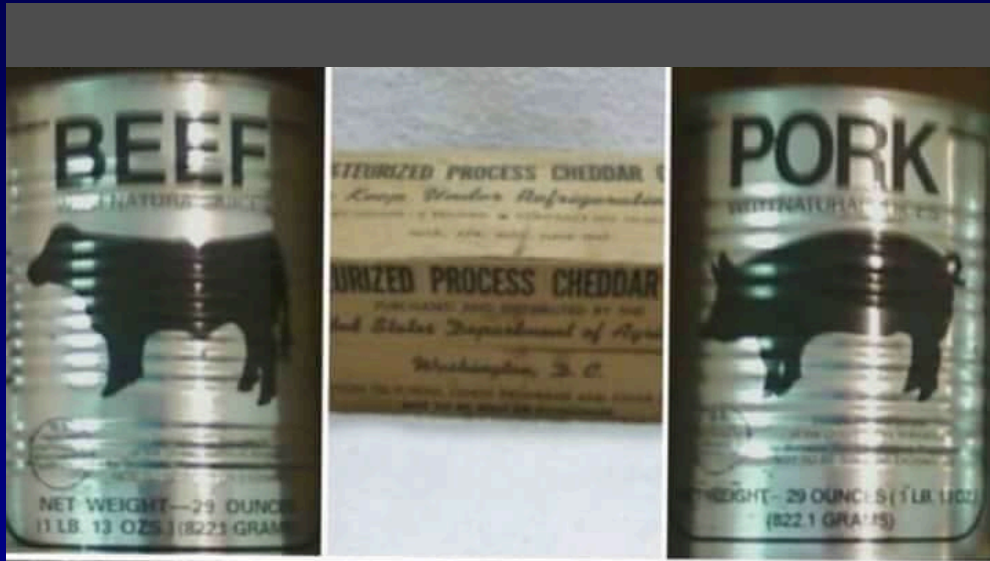
AMERICAN
GEOGRAPHICAL SOCIETY

AMERICAN GEOGRAPHICAL SOCIETY

Epigenetics

- Epigenetics refers to the study of changes in the regulation of gene activity and expression that are not dependent on DNA sequence.





@MacarioAeugus



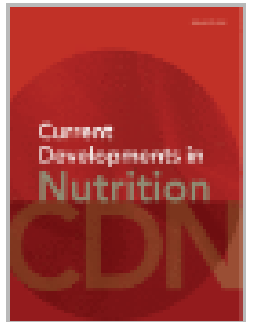




ELSEVIER

Current Developments in Nutrition

Volume 6, Supplement 1, June 2022, Page 270



Chokeberry Reduces Inflammation in Human Pre-adipocyte Cells

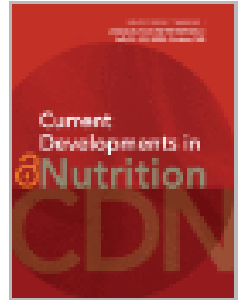
Dale Brunelle¹, Nicole Redvers², Kate Larson¹, Amy Bundy¹, James Roemmich¹, Donald Warne²



ELSEVIER

Current Developments in Nutrition

Volume 7, Supplement 1, July 2023, 100517



Dietary Bioactive Components

P03-006-23 Chokeberry Effects on Gene Expression and Epigenetics of Interleukin-6

Dale Brunelle, Nicole Redvers, Kate Larson, Amy Bundy, James Roemmich, Donald Warne



HEALTH EFFECTS OF TRADITIONAL INDIGENOUS CHOKEBERRY

If you are American Indian and between 18-65 years of age
you could be eligible to participate

We're looking for participants

for an Indigenous-led research study to better understand the health effects of an Indigenous traditional food for Indigenous Peoples.

The purpose of this study is to specifically assess if chokeberry juice alters certain physical and mental health markers in the body.

Participation will involve:

- 7-12 weeks of participation
- 2 lab visits with surveys
- Daily intake of chokeberry juice for 6 weeks

Participants can receive up to \$285 for completion of all study components

Location:

Department of Indigenous Health, University of North Dakota

Partners:

- Grand Forks USDA Human Nutrition Research Center
- Altru Health System



Your participation in this study could:

- Help others in the future
- Temporarily improve your cholesterol, blood sugar, and blood pressure
- Help you reconnect with a traditional and culturally significant American Indian food product

Artwork by: Hillary Kempenich

For more information or questions on participating in this study, please contact our study team:
Dr. Nicole Redvers (Enrolled member of the Deninu K'ue First Nation)
Email: nicole.redvers@und.edu
Phone: 701-777-6096

Indigenous Trauma & Resilience Research Center

COBRE, NIGMS, P20GM139759

Impact of ACEs on Health

ACES can have lasting effects on....



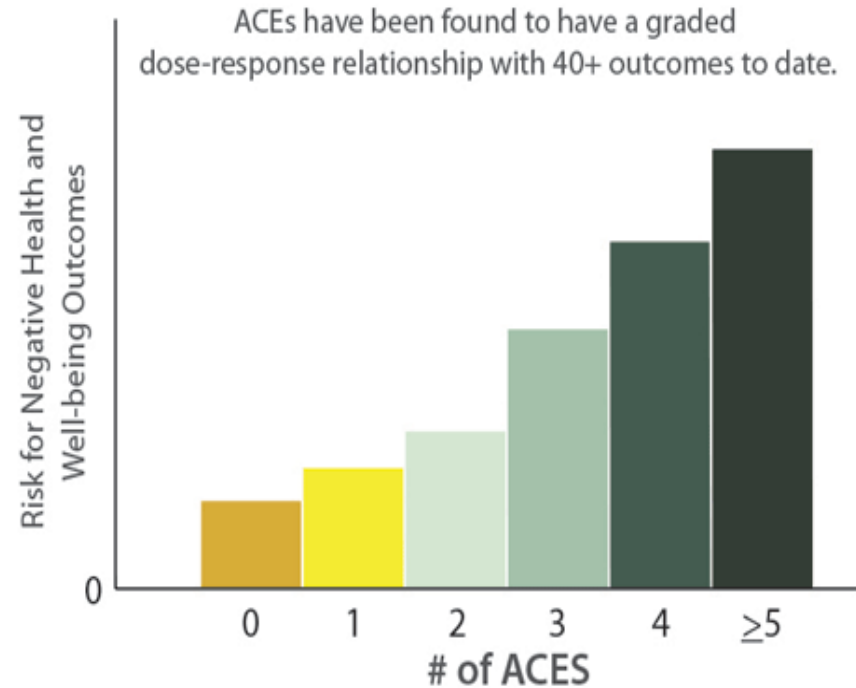
Health (obesity, diabetes, depression, suicide attempts, STDs, heart disease, cancer, stroke, COPD, broken bones)



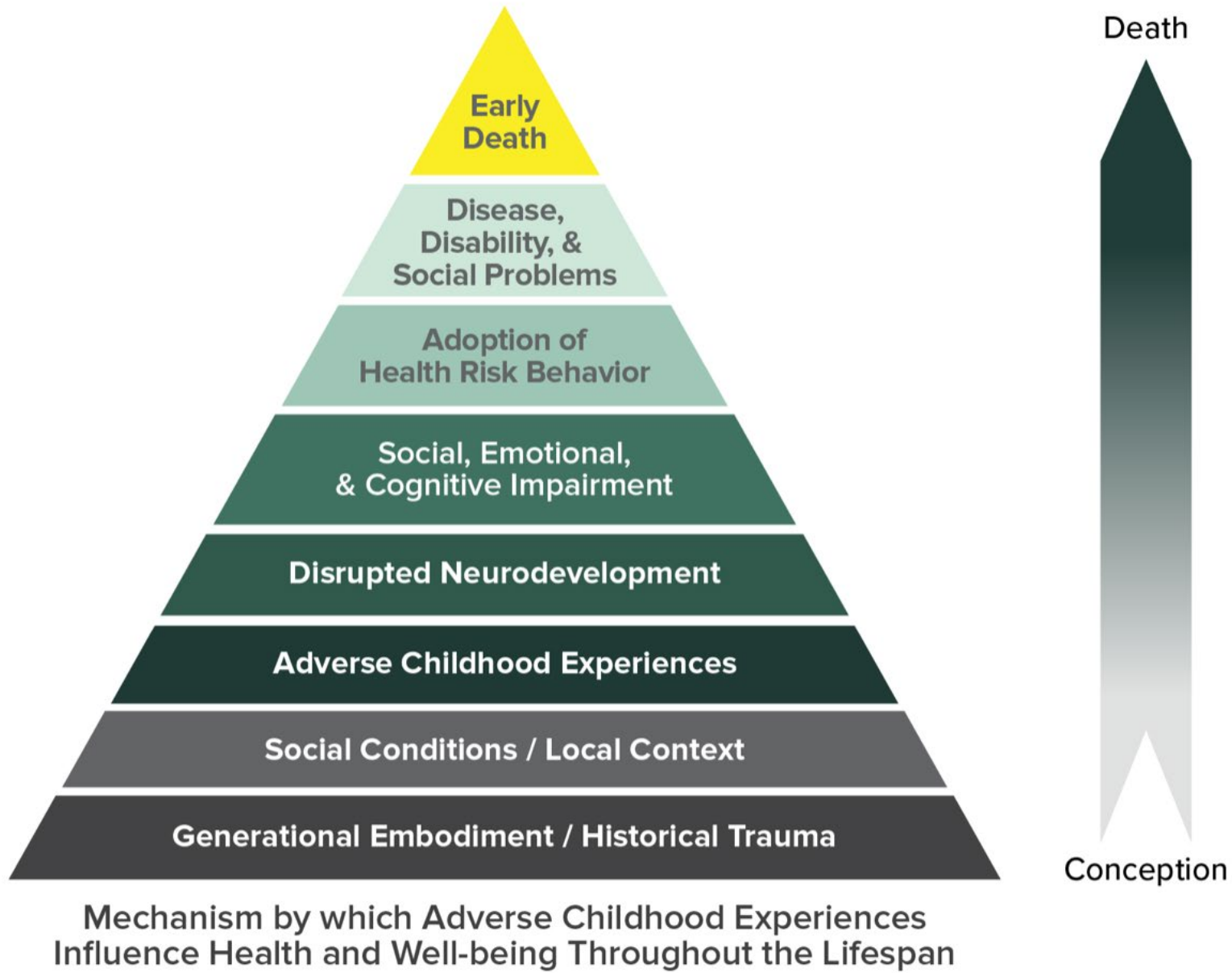
Behaviors (smoking, alcoholism, drug use)



Life Potential (graduation rates, academic achievement, lost time from work)



*This pattern holds for the 40+ outcomes, but the exact risk values vary depending on the outcome.



Traditional View of Public Health

Respect for Indigenous Knowledge

- Indigenous STEM



Respect for Indigenous Knowledge

- Indigenous STEM



Respect for Indigenous Knowledge

- Indigenous STEM



Respect for Indigenous Knowledge

- Indigenous STEM



USDA announces a new focus on Indigenous food and agriculture

Dan Gunderson Moorhead, Minn. November 16, 2021 12:45 p.m.



Bear Island corn comes from an island on the Red Lake Reservation in northern Minnesota. ■ Dan Gunderson | MPR News 2011

NEWS & UPDATES

White House Commits to Elevating Indigenous Knowledge in Federal Policy Decisions

NOVEMBER 15, 2021 • PRESS RELEASES

*White House Office of Science & Technology Policy and Council on
Environmental Quality release first-of-its kind memorandum to initiate new
federal guidance on Indigenous Traditional Ecological Knowledge*

<https://www.whitehouse.gov/ceq/news-updates/2021/11/15/white-house-commits-to-elevating-indigenous-knowledge-in-federal-policy-decisions/>

International Focus on Indigenous Issues

Permanent Forum on Indigenous Issues

Twenty-second session

New York, 17–28 April 2023

Item 4 of the provisional agenda*

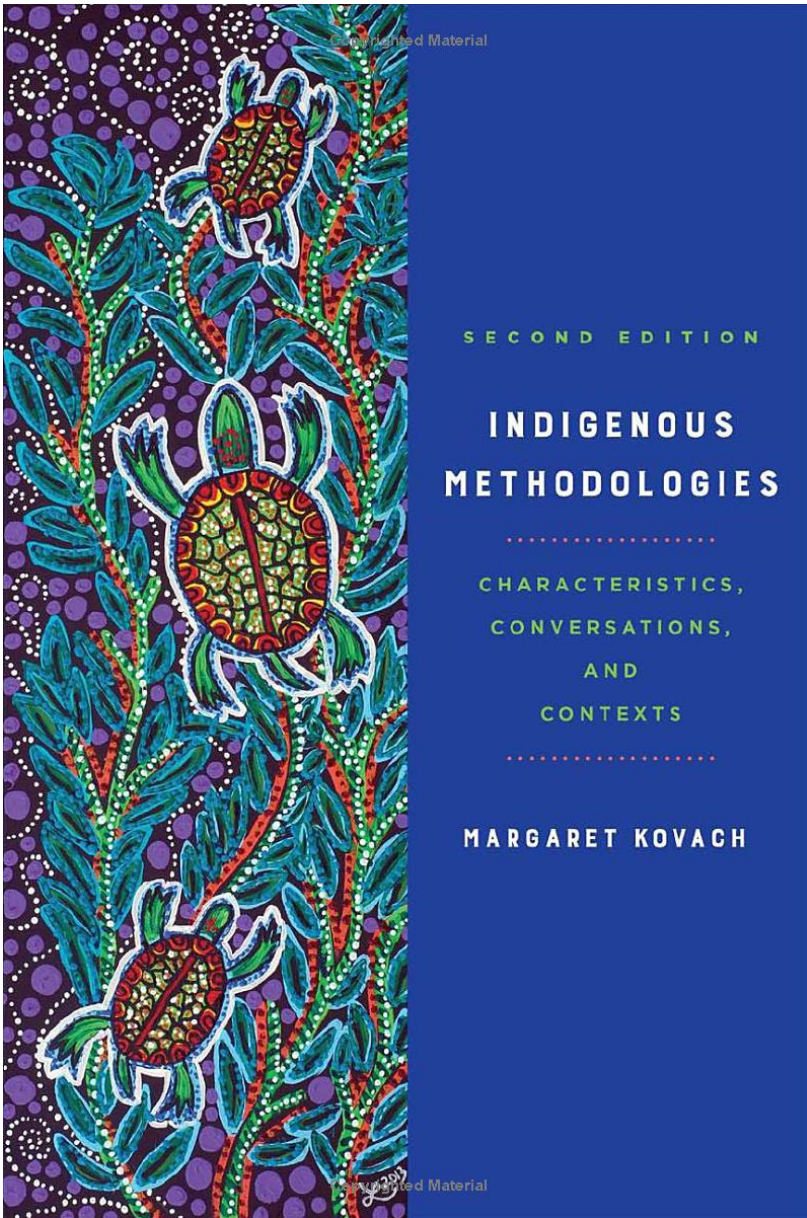
Discussion on the six mandated areas of the Permanent Forum (economic and social development, culture, environment, education, health and human rights), with reference to the United Nations Declaration on the Rights of Indigenous Peoples and the 2030 Agenda for Sustainable Development

Indigenous determinants of health in the 2030 Agenda for Sustainable Development

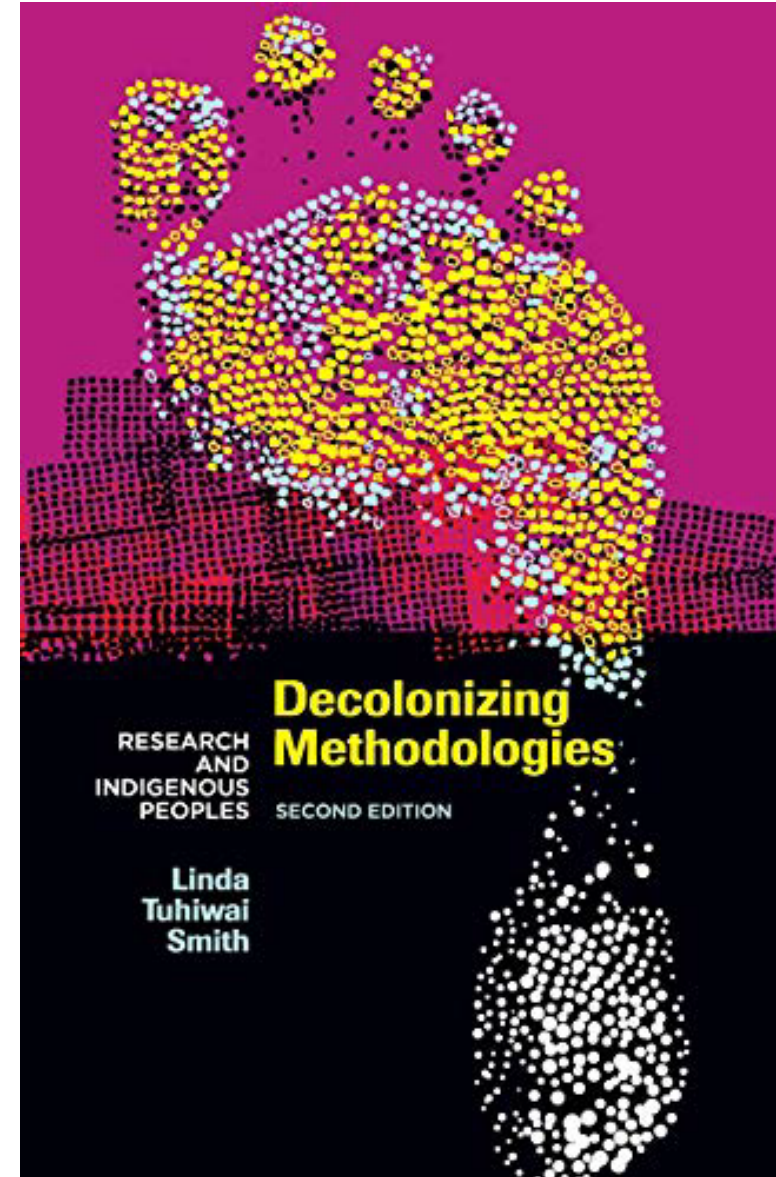
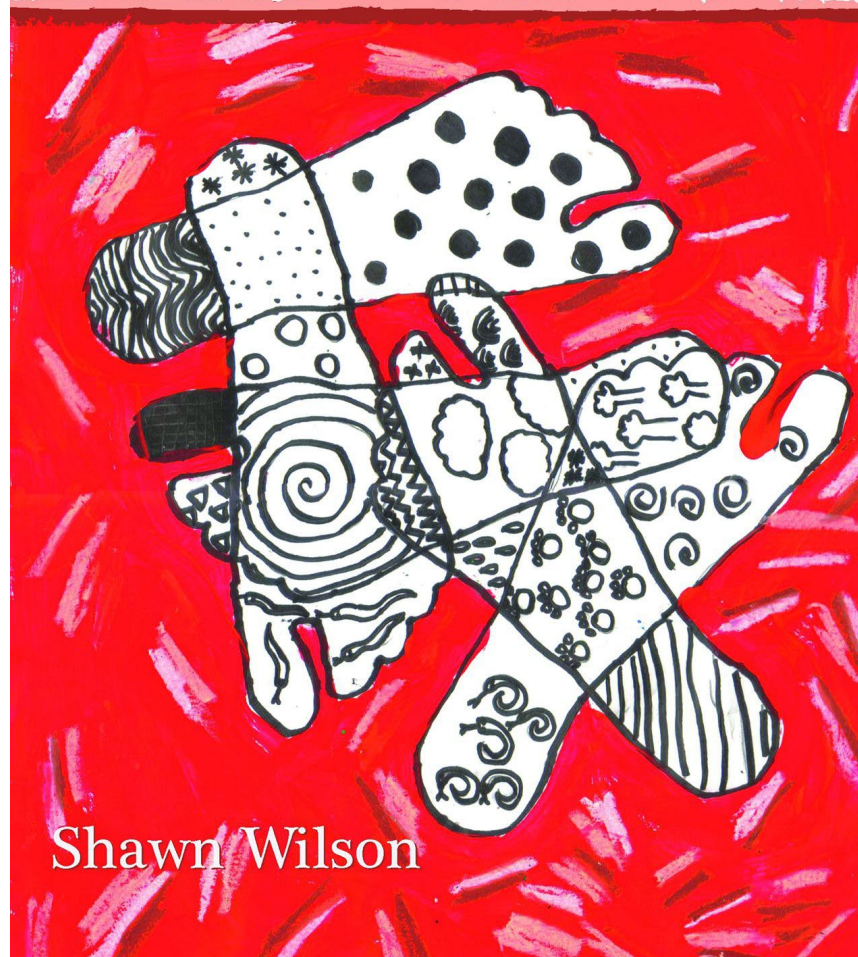
Types of AI/AN Healing Systems

- Hands on
 - Musculoskeletal, visceral, version, bone-setting, craniotomy
 - Midwives, doulas
- Botanicals
 - Berries, willow (acetyl salicylic acid), others...
- Energy
 - Biofield medicine, traditional healing, healing touch
 - Emotional work, counseling
- Mind
 - Storytelling, traditional counseling
- Spirit
 - Story, sharing/gatherings/celebration/ceremony
 - Distinct point of healing and release, restart and support, honoring those who helped
- Ceremony/Purification: Fasting, humility presence from “spirit”/energy
- Many others...





Research Is Ceremony Indigenous Research Methods



**Western
Research
Knowledge &
Methodologies**



**Indigenous
Knowledge &
Methodologies**

Interface

• Mutual Respect • Shared Benefits • Human Dignity • Discovery*

Indigenous Perspective on Health



Clinical Research



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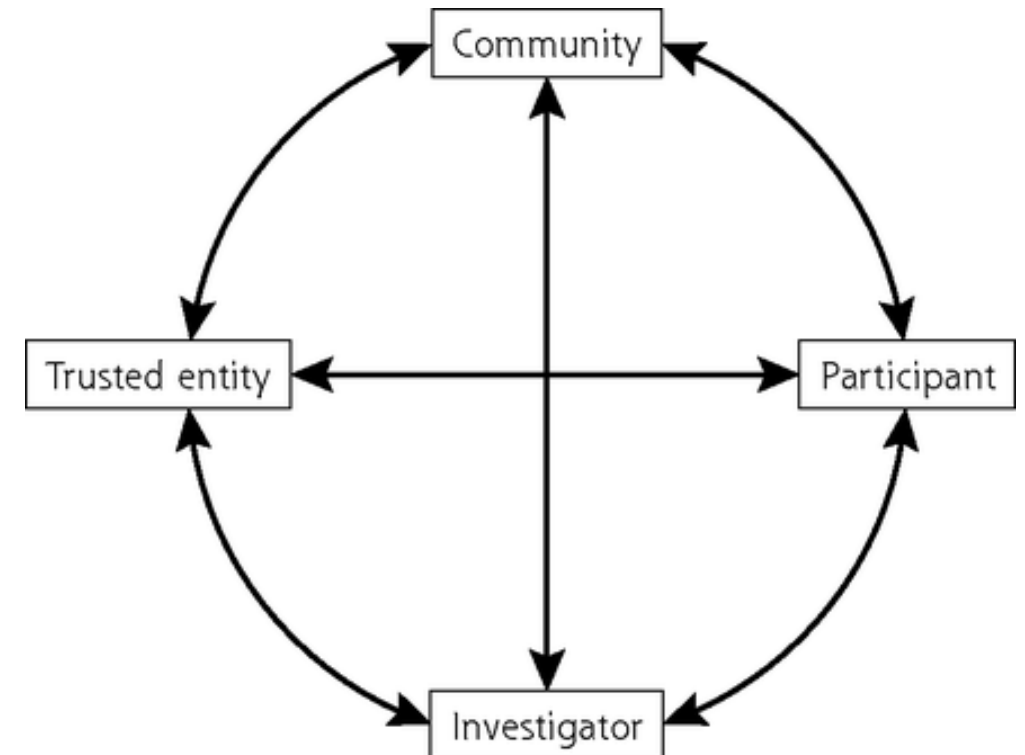
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Research Article | Theory

Recruiting Indigenous Patients Into Clinical Trials: A Circle of Trust

Arch G. Mainous, Allison Kelliher and Donald Warne

The Annals of Family Medicine January 2023, 21 (1) 54-56; DOI: <https://doi.org/10.1370/afm.2901>





DrPH and MPH Concentrations

Indigenous Health

Clinical Trials Network

NIDA

Current updates:

- + **Great Plains Initiative**
- + Aim 1—Develop a Community-Driven Research Agenda
- + Aim 2—Assess the feasibility of using Telemedicine for MAT



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Indigenous Health Next Steps

- Indigenous Health as an Academic Discipline
- Indigenous Medicine as a Clinical Science
- Indigenous School of Healing Arts



Where are 105 HBCUs?

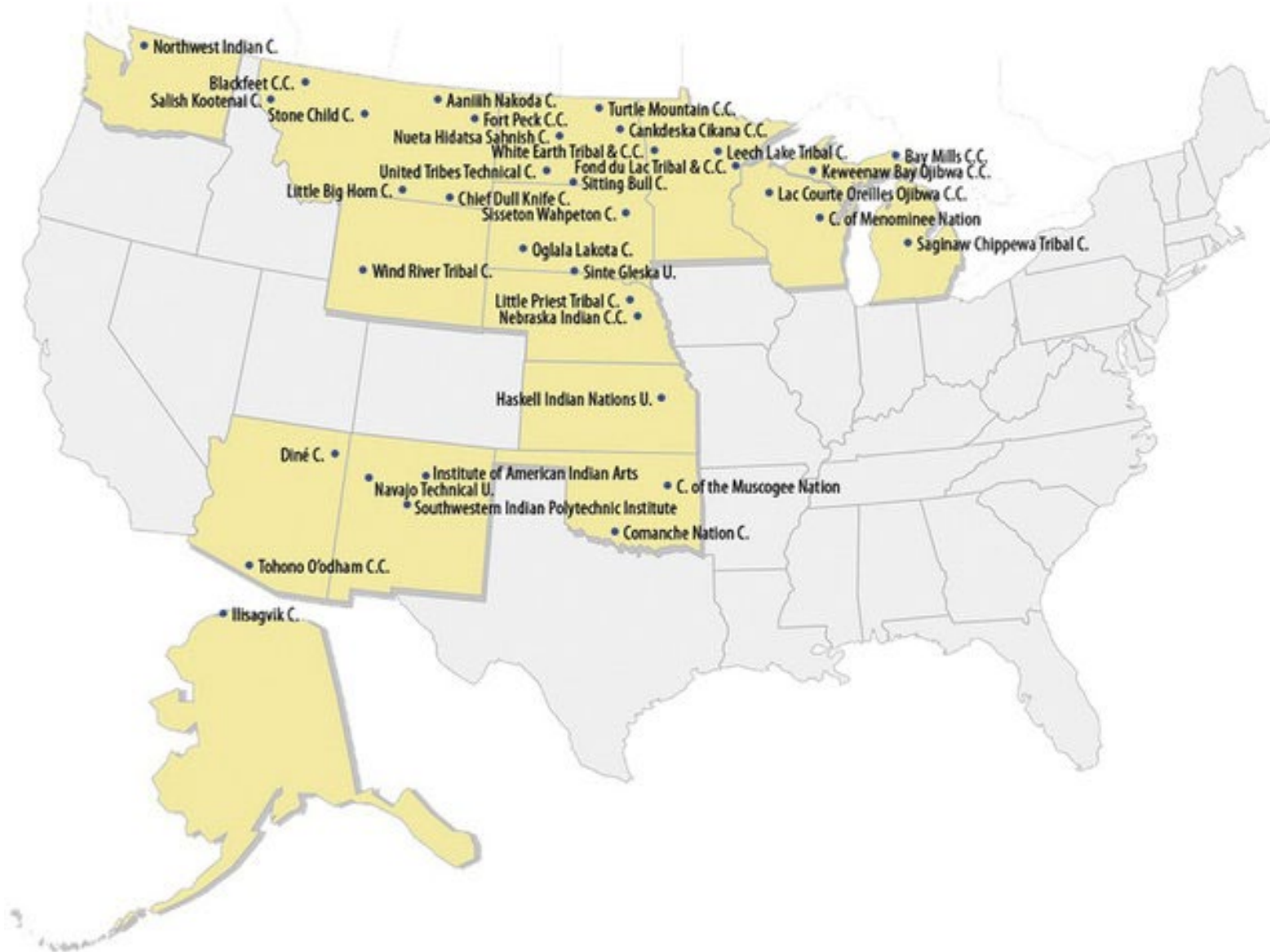




Where are the HBCU Medical Schools?



Where are the TCUs?



Where are the TCU Medical Schools?

Dream Big...



***ISHAS* Indigenous School of Healing Arts & Sciences**



Indigenous School of Healing Arts & Sciences

Multiple health sciences are in need:

- Medicine—UME, GME, Fellowships...
- Naturopathic Medicine
- Nursing
- PT/OT/ST
- Public Health
- Allied Sciences
- All health professions...



- **Department of Traditional Medicine**

Indigenous School of Healing Arts & Sciences

Decolonize and Indigenize Curricula

- Competency-based rather than time-bound
- Respect for traditional values and family systems
- Community-driven and informed curricula
- Land-based healing principles
- Promote Wellness—not just treat disease
- Do NOT traumatize health professions students
- Integrate traditional medicine & modern science across curricula
- Indigenous research methodologies
- NEED Indigenous faculty and leadership
- Indigenous Medicine is a clinical science



Indigenous School of Healing Arts

Locations?

- Large enough city with access to medical specialties
- No current medical school
- Significant number of AI/AN patients

- Rapid City, SD?
- Flagstaff, AZ?
- Santa Fe, NM?
- Anchorage, AK? (ANSHAS)
- Others?





Indigenous School of Healing Arts

Next Steps

- Strategic Plan and Business Plan
- Governance Structure
 - National
 - Multiple campuses
- Support existing programs
- Financial Support
- Tribal & Community Support
- Stakeholder Support





BLACK ELK

Of course it was not I who cured. It was the power from the outer world, and the visions and ceremonies had only made me like a hole through which the power could come to the two-leggeds. If I thought that I was doing it myself, the hole would close up and no power could come through.



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