

### STRESS & HEALTH IN AMERICAN INDIAN PREGNANCIES:

AN INITIAL EXAMINATION OF ELECTRONIC MEDICAL RECORD DATA

DR. ANDREW WILLIAMS

#### Why use medical records?

- Capture complete pregnancy continuum
- High healthcare utilization
- DATA COMPLETENESS
- Clinical measurements of critical timepoints
- Mother-infant dyad linkage
- Intergenerational research potential

#### ADVANTAGES

- Natural experiments & policy evaluation
- RETRO-SPECTIVE SURVEYS
- BIRTH CERTS.
- PROSPECTIVE COHORTS

#### STRENGTHS

- Large sample sizes
- Real-world data
- Longitudinal follow-up possible
- Families within data
- Cost & time efficiency

#### CONCERNS

- Data quality & completeness
- Misclassification
- selection bias
- Data from outside facilities limited or absent

#### 3 OUTCOMES

- CESAREAN DELIVERY 23%
- LOW BIRTH WEIGHT 7.5%
- PRETERM DELIVERY 11.6%

#### PRAMS

NORTH DAKOTA

#### SOCIAL DETERMINANTS

MEASURE WITH

### DATA

GRAND FORKS, ND  
JAN 2010-FEB 2025

15,041 MOTHERS  
24,206 BABIES  
DEMOGRAPHIC FACTORS  
HEALTH FACTORS  
ICD CODES

# UND ITRRC COBRE

## 2025 Symposium

The ITRRC is supported by the National Institute Of General Medical Sciences of the National Institutes of Health under Award Number P20GM139759.

### FURTHER UPDATES ON THE HEALTH EFFECTS OF TRADITIONAL CHOKEBERRY

DR. JOEL STEELE

#### OVERCOMING ADVERSITY

Adverse childhood experiences  
ATAN ↑ health problems & ACEs

#### AGEs + INFLAMMATION

#### MEASURES:

- ACEs survey
- PERSONAL HISTORY
- LOSS (Historical loss scale)
- CD-RISC2 RESILIENCE
- 2-item GAD scale ANXIETY
- PHQ-2 DEPRESSION
- MENTAL HEALTH
- METHYLATION
- EXPRESSION

INCREASE KNOWLEDGE BASE on the relationships between AI traditional food consumption, gene expression changes & metabolic markers in relation to TRAUMA & RESILIENCE

Everybody starts at their own PLACE... And goes at their own PACE!

We have more VARIABLES than observations...

#### EPIGENETIC

### SOCIAL DETERMINANTS OF PRENATAL TRAUMA & RESILIENCE

DR. JUNE-YUNG KIM

#### SOCIAL DETERMINANTS

- Social & community context
- Economic stability
- Education access & equity
- Healthcare access & quality

#### PURPOSE:

- EXPAND KNOWLEDGE BASE regarding SOCIAL DETERMINANTS OF PRENATAL SUBSTANCE USE - Native American women
- INFORM WORK involving CULTURAL VALIDATIONS OF SOCIAL DETERMINANTS OF HEALTH DOMAINS - community-based participatory research

#### HISTORICAL TRAUMA

#### INDIGENOUS RESILIENCE

#### DATA ANALYSIS: PERSON-CENTERED APPROACH

PERSON-CENTERED ANALYTIC APPROACH

PRENATAL SUBSTANCE USE BY SDH PATTERNS

- AT-RISK
- ECONOMIC HARDSHIP / MODERATE RISK
- RESILIENT 28%
- LOWEST!

77% of pregnant women use illicit drugs

19.6% When combined with alcohol or tobacco use

LATENT CLASS ANALYSIS (LCA)

### INDIGENIZING SEXUAL VIOLENCE PREVENTION: A COMMUNITY-BASED APPROACH

DR. RAEANN ANDERSON  
PRESENTER: KYLENE MARTELL

#### What should sexual assault prevention programs look like for Indigenous People?

#### EXISTING PROGRAMS:

- Positive youth development
- Family supports
- Healthy relationship programs
- Substance use prevention
- Bystander intervention

#### How often does sexual assault happen?

80% OF INDIGENOUS PEOPLES EXPERIENCE ABUSE/ASSAULT

#### DAMAGING IMPACTS OF COLONIZATION

SEXUAL VIOLENCE AS A HISTORICAL TRAUMA

! BUT... Don't paint a story of DOOM & GLOOM... WE HAVE HOPE

#### UNIQUE INDIGENOUS STRENGTHS

- Tradition of resistance, including self-defense
- community awareness/knowledge
- community care traditions, cultural healing practices

#### CAB

community Advisory Board

Attempt to engage with EVERY tribal community in North Dakota

Addition of prayer, smudge, & sweat to study protocol

Greater focus on indigenizing research methods

#### PREVENTION

should be available EVERYWHERE

is for EVERYONE

should WORK

#### ideas: RECOGNITION

is connecting to CULTURE

Different people need different things

It's a big problem that will not have one solution

Different forms of violence are all related

### USING CEREMONY-ASSISTED TREATMENT FOR HEALING & RECOVERY FROM SUBSTANCE USE DISORDERS

DR. BRYNN LUGER  
CO-PRESENTER: DIANA HAWKINS

#### EXPLORE THE PERCEIVED IMPACT & EFFICACY DEFINED BY THE COMMUNITY

OF CAT for AI seeking care for substance use disorders through OLO

#### INFORM FUTURE SUD INTERVENTIONS FOR THIS COMMUNITY

#### COLLABORATIVE & COMMUNITY-BASED

#### RECOVERY CONFIDENCE!

#### CAT

QUALITATIVE DATA COLLECTION

INFORMANT INTERVIEWS

FOCUS OF THE INTERVIEWS

PROCESS

INTERVIEW PROCESS

INCENTIVES

CONNECTION TO CULTURE

HEALTHY COPING MECHANISMS

LEVEL OF ACCOUNTABILITY

SENSE OF N.A. IDENTITY & BELONGING

MOVING FORWARD in a sacred way

OLo

CULTURE AS A FOUNDATION

PATIENT RELATIVE