Impact of the Built and Natural Environment on American Indian Health

AIA AAH/ACHA Summer Leadership Summit
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Mary J. Berg Distinguished Professor of Women’s Health
Traditional View of Public Health
Pine Ridge Reservation

Kyle, S.D.
American Indians and Alaska Natives as a Share of the Total Population, by State, 2009-2011

Total: 2.5 million = 1% of U.S. Population

Less than 1% (36 states)
1-3% (8 states)
More than 3% (7 states)

American Indian and Alaska Native includes people of Hispanic origin.
SOURCE: KCMU analysis of 2009 - 2011 ACS.
AI Health Disparities

Death rates from preventable diseases among AIs are significantly higher than among non-Indians:

- Diabetes 208% greater
- Alcoholism 526% greater
- Accidents 150% greater
- Suicide 60% greater

Indian Health Service. *Regional Differences in Indian Health 2002-2003*
AI Health Disparities

Average age at death in ND (2010 – 2014):

77.4 Years in the White Population

56.6 Years in the AI Population

North Dakota Department of Health, Vital Statistics
2.5 times as many AI/ANs as whites live below poverty level

Source: CDC Health Disparities and Inequalities Report 2011, MMWR, Vo. 60
Historical Context
Historical Context

1790
AI/AN Population by County

Source: U.S. Census Bureau, 2010 Census Redistricting Data (Public Law 94-171) Summary File, Table P1.
Inter-Generational Basis for Chronic Disease Disparities Among American Indians and Alaska Natives

Historical Trauma

Genocide

Chronic Disease Disparities

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American Indian Population Decline and Recovery, 1492 – 2010
Inter-Generational Basis for Chronic Disease Disparities Among American Indians and Alaska Natives

Historical Trauma

Boarding School Experiences
- Abuse (physical, sexual)
- Neglect
- Abandonment
- Forced Removal
- Loss of culture & language
- Forced Christianity
- Lost traditional parenting & family structure

Genocide

Gestational Stressors

Birth

Chronic Disease Disparities

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Historical trauma is the collective emotional wounding across generations that results from massive cataclysmic events – Historically Traumatic Events (HTE)*

• The trauma is held personally and transmitted over generations. Thus, even family members who have not directly experienced the trauma can feel the effects of the event generations later.
Inter-Generational Basis for Chronic Disease Disparities Among American Indians and Alaska Natives

Historical Trauma

Gestational Stressors

Birth

Childhood Stressors

Chronic Disease Disparities

Genocide

WIC

FDPIR

Boarding School Experiences
- Abuse (physical, sexual)
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- Loss of culture & language
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- Lost traditional parenting & family structure

Adverse Childhood Experiences
- Abuse (physical, sexual)
- Neglect
- Substance Abuse in home
- Mental Health Dx in home
- Witnessing violence
- Divorce
- Food insecurity
- Family member in prison

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Inter-Generational Basis for Chronic Disease Disparities Among American Indians and Alaska Natives

Historical Trauma

- Genocide
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Gestational Stressors

- WIC
- Birth
- Adverse Childhood Experiences
  - Abuse (physical, sexual)
  - Neglect
  - Substance Abuse in home
  - Mental Health Dx in home
  - Witnessing violence
  - Divorce
  - Food insecurity
  - Family member in prison

Childhood Stressors

- FDPIR

Adulthood Stressors

- Adverse Adulthood Experiences
  - Alcoholism & SA
  - Suicide rates / death rates
  - Poverty / Poor nutrition
  - Racism / Toxic Stress
  - Role models
    - Few positive
    - Many negative
    - Parenting

Chronic Disease Disparities

© Warne & Lajimodiere 2012
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- Chronic Disease Disparities

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Next generation

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# Significant Challenges

<table>
<thead>
<tr>
<th>Social Determinants</th>
<th>Outcomes</th>
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<tbody>
<tr>
<td>Poverty</td>
<td>Health Disparities</td>
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<tr>
<td>Trauma</td>
<td>Education Inequality</td>
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<td>Politics</td>
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<td>Racism</td>
<td>Worsening Inequity</td>
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<tr>
<td>Inequity</td>
<td>Suffering and Death</td>
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Let Us Put Our Minds Together And See What Life We Can Make For Our Children.

~ Sitting Bull
MODERN   TRADITIONAL

- Model: Allopathic  Holistic
<table>
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<tr>
<th>MODERN</th>
<th>TRADITIONAL</th>
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<tbody>
<tr>
<td>&quot;Medicine&quot;</td>
<td>Physical</td>
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</table>
MODERN TRADITIONAL

• Goal
  Cure/Control
  Individual Disease
  Community Health
MODERN TRADITIONAL

• Communication Linear Circular
MODERN          TRADITIONAL

• Provider  Physician  Healer
MODERN   TRADITIONAL

• Symbol     Serpent & Staff      Medicine Wheel
MEDICINE WHEEL

MENTAL

PHYSICAL

SPRITUAL

EMOTIONAL
MEDICINE WHEEL

EDUCATIONAL

ENVIRONMENTAL  CULTURAL

SOCIAL
Ed McGaa, Eagle Man

Native American Indians learned how to live with the earth on a deeply spiritual plane. The plight of the non-Indian world is that it has lost respect for Mother Earth, from whom and where we all come.

Mother Earth Spirituality, 1990
Ed McGaa, Eagle Man

We all start out in this world as tiny seeds—no different from our animal brothers and sisters, the deer, the bear, the buffalo, or the trees, the flowers, the winged people. Mother Earth is our real mother, because every bit of us truly comes from her, and daily she takes care of us.

Mother Earth Spirituality, 1990
NDSU MPH Program Mission

The program’s mission is to promote health and well-being in diverse populations with an emphasis on American Indian and other underserved populations by providing educational, practical, and research opportunities for public health professionals.
Specializations/Tracks

NDSU MPH Program

- Health Promotion (CHES)
- Management of Infectious Diseases
- Public Health in Clinical Systems
- American Indian Public Health
Specializations/Tracks

American Indian Public Health

• Required Courses
  – American Indian Health Policy
  – American Indian Health Disparities
  – Cultural Competence in Indian Health
  – Research Issues in Tribal Communities
  – Case Studies in Indian Health