# Impact of Unresolved Trauma on American Indian Health & Higher Education

Webinar
October 26, 2018
AIHEC Aseto'ne Network Project

#### Donald Warne, MD, MPH

Oglala Lakota

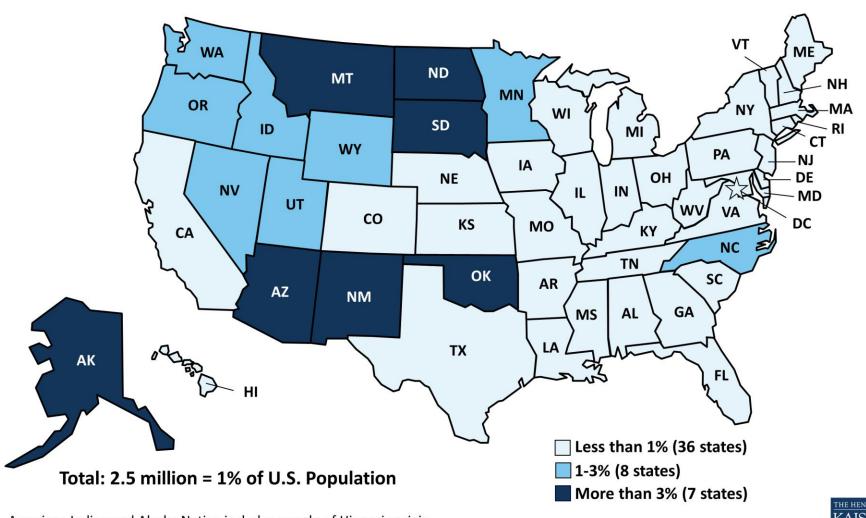
Associate Dean of Diversity, Equity, and Inclusion Director, MPH Program & INMED Program UND School of Medicine and Health Sciences



#### **Traditional View of Public Health**



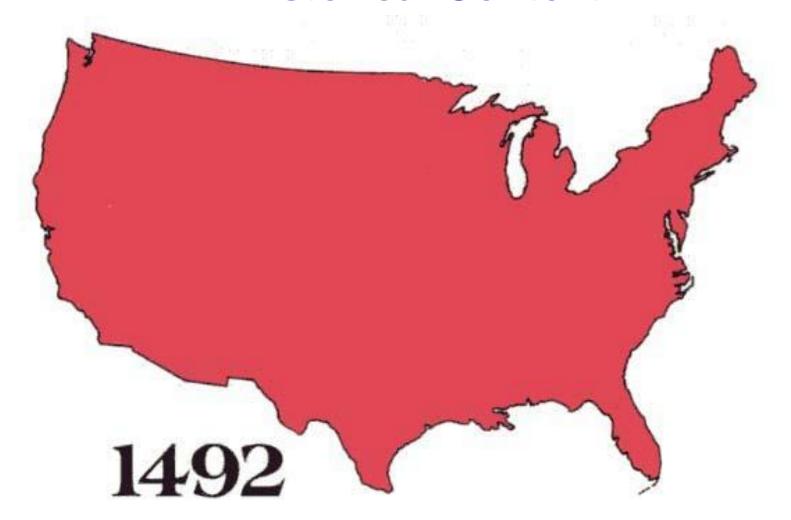
## American Indians and Alaska Natives as a Share of the Total Population, by State, 2009-2011



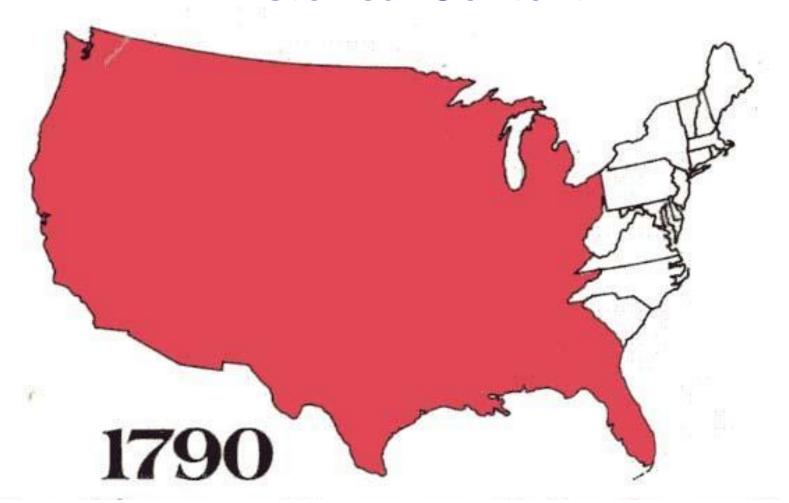
American Indian and Alaska Native includes people of Hispanic origin. SOURCE: KCMU analysis of 2009 - 2011 ACS.

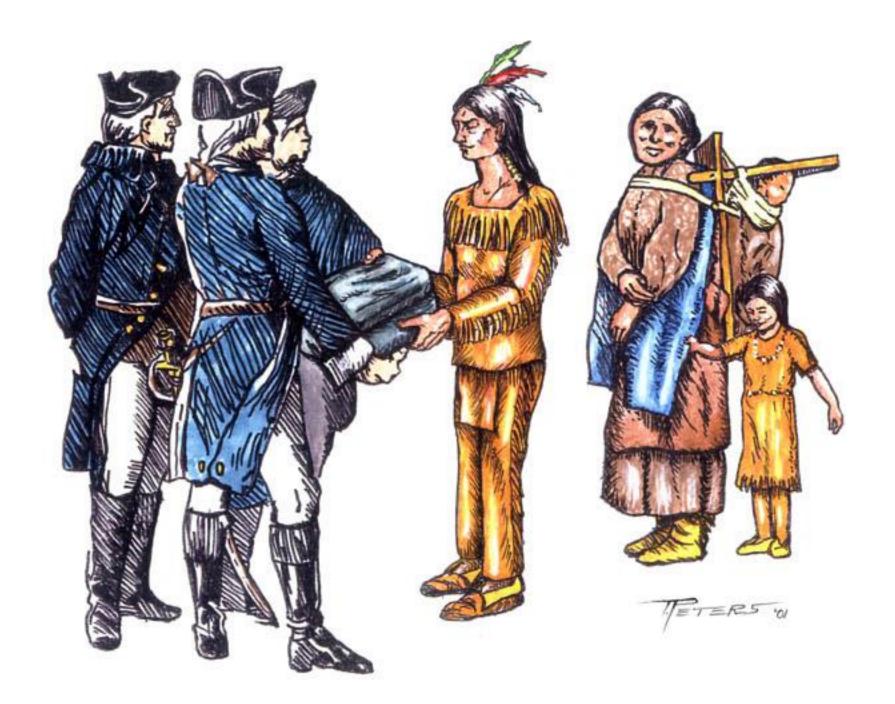


#### **Historical Context**



#### **Historical Context**





Rel

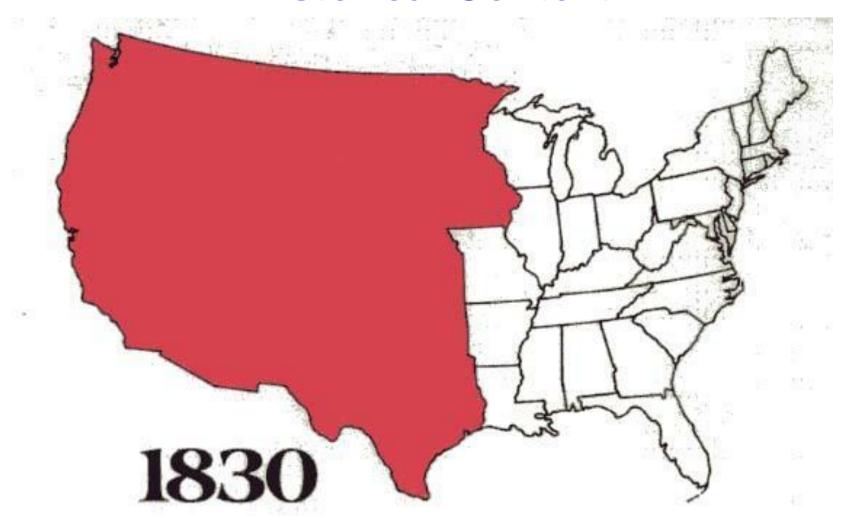
Indiano by means of Blanketts, asswell as to try freezy other method that can verve to lettirpate the lectorpate the lector and Bace. Ishould be very glad your Schene for Sunting them Down by Dogo could take

Affect, but Ingiand in at too great a Distance to think of thiat at present

Bel You will Down to bry to Innoculate the Indiano by meane of Blanketts, avecle as to try Every other method that can verve to letterpate thie l'eccratte Race . Ishould bevery glad your Schenne for Sunteng them Down by Doge could take Aftert hut Ingrand in at too great and

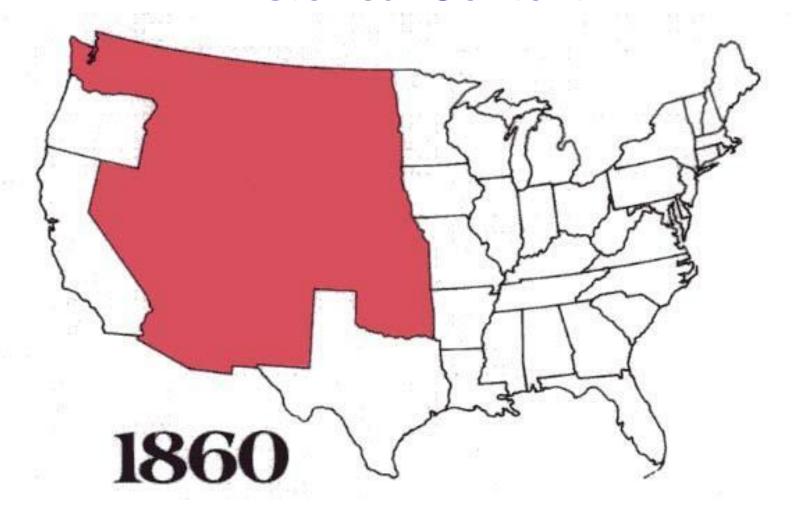
You will do well to try to inoculate the Indians by means of Blanketts, as well as to try every other method that can serve to Extirpate this Execrable Race. I should be very glad your Scheme for hunting them Down by Dogs could take effect...

#### **Historical Context**





#### **Historical Context**



# Dakota War of 1862

#### VALUE OF AN INDIAN SCALP

#### Minnesota Paid Its Pioneers a Bounty for Every Redskin Killed

It is not generally known in latter day Minnesota history that the state treasury once paid out cash as bounties for Sioux Indian scalps, just as this and many other states are now paying for wolf scalps. State Treasurer Koerner yesterday, in looking over the 1863 report of State Treasurer Charles Schaff, discovered the following item among the disbursements of that year:

J. C. Davis, Sioux scalp......\$25
This item occurs in the list of disbursements, amounting in all to \$7,870.06,
under the head "Suppressing Indian
War." The \$25 paid to J. C. Davis for

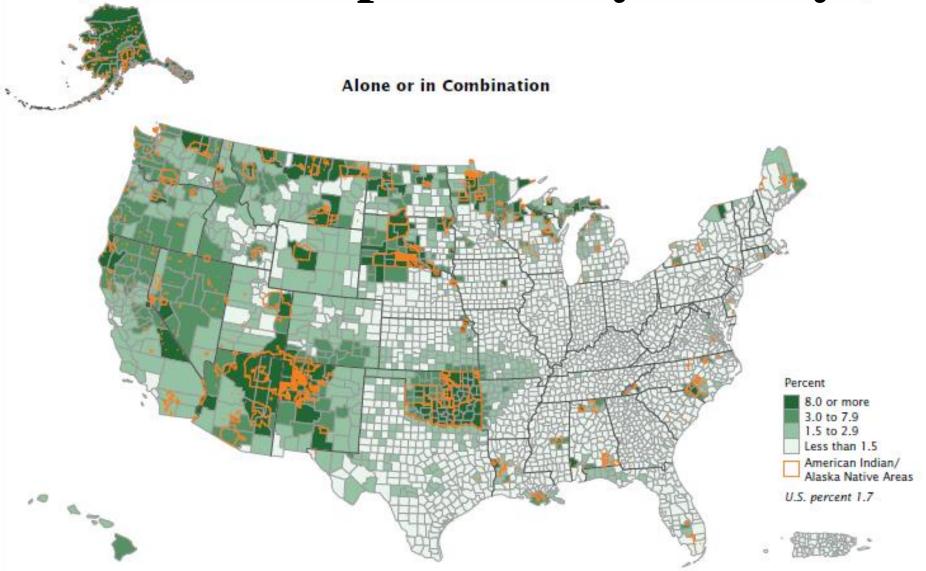
# The Daily Republican Winona, MN—1863

#### State Ticket.

#### County Ticket.

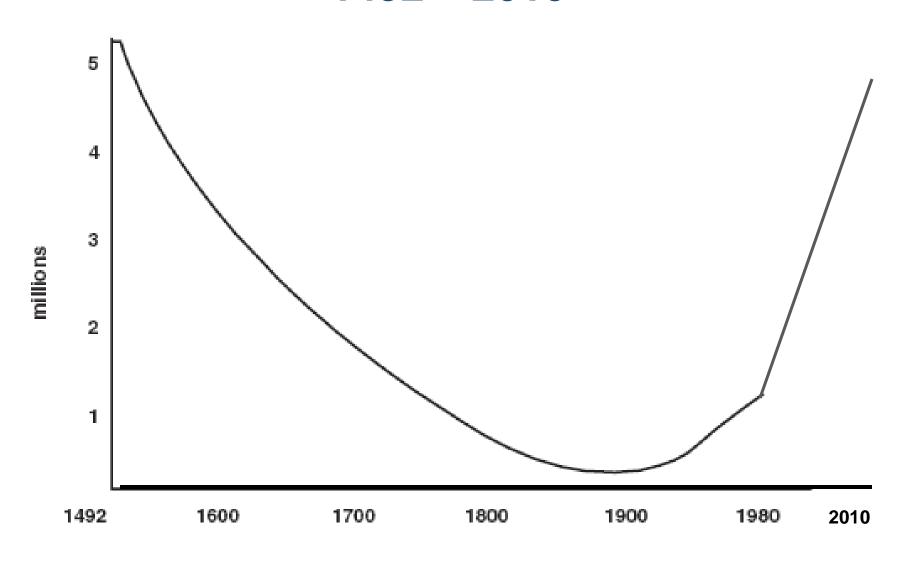
THE State reward for dead Indians has been increased to \$200 for every red-skin sent to Purgatory. This sum is more than the dead bodies of all the Indians east of the Red River are worth.

### AI/AN Population by County

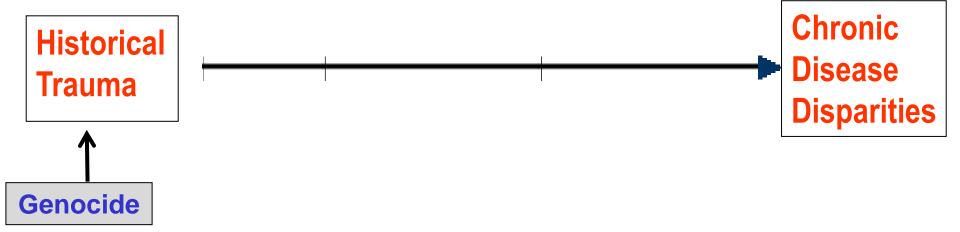


Source: U.S. Census Bureau, 2010 Census Redistricting Data (Public Law 94-171) Summary File, Table P1.

# Al/AN Population Decline and Recovery, 1492 – 2010



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

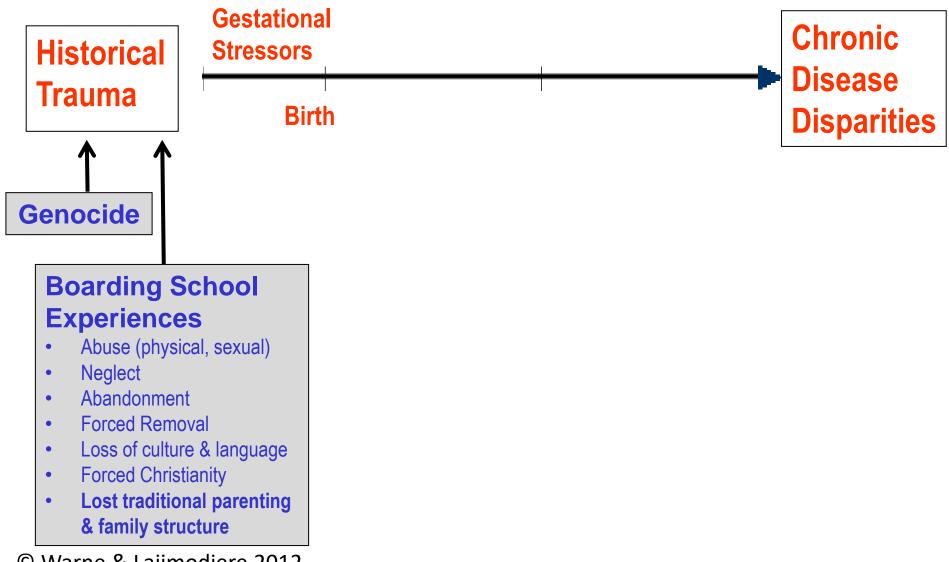


Historical trauma is the collective emotional wounding across generations that results from massive cataclysmic events – Historically Traumatic Events (HTE)\*



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

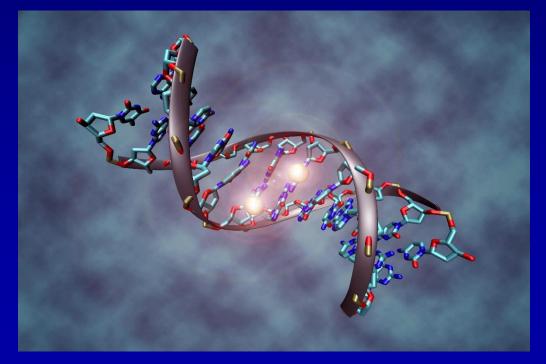
## Inter-Generational Basis for Chronic Disease Disparities Among American Indians and Alaska Natives



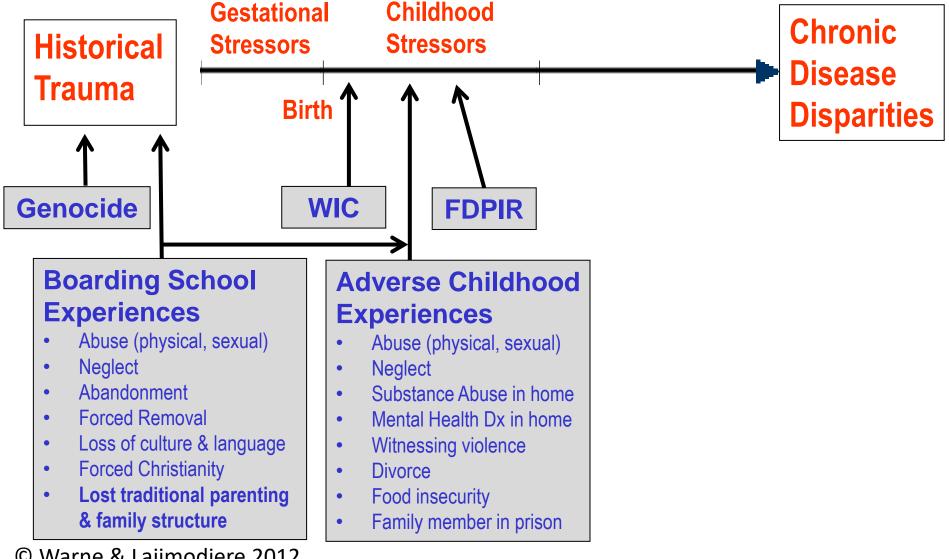
© Warne & Lajimodiere 2012

## **Epigenetics**

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

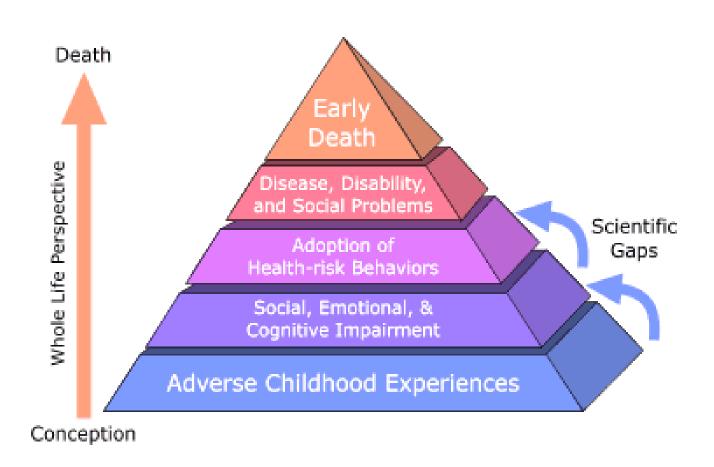


#### **Inter-Generational Basis for Chronic Disease Disparities Among American Indians and Alaska Natives**



© Warne & Lajimodiere 2012

#### **ACE Study Pyramid**



#### Impact of ACEs on Health

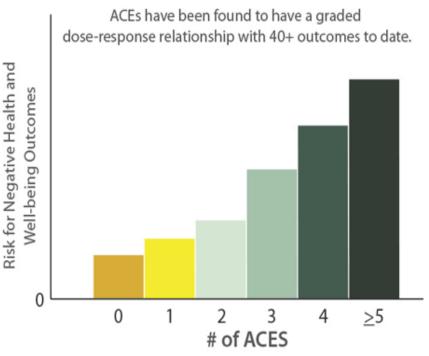
### ACES can have lasting effects on....



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



Behaviors (smoking, alcoholism, drug use)



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

#### Impact of ACEs on Health & Higher Education

### ACES can have lasting effects on....



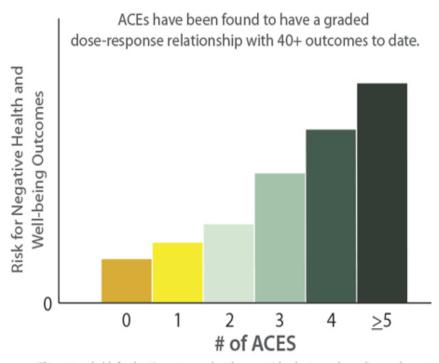
Health (obesity, diabetes, depression, suicide attempts, STDs, heart disease, cancer, stroke, COPD, broken bones)



Behaviors (smoking, alcoholism, drug use)

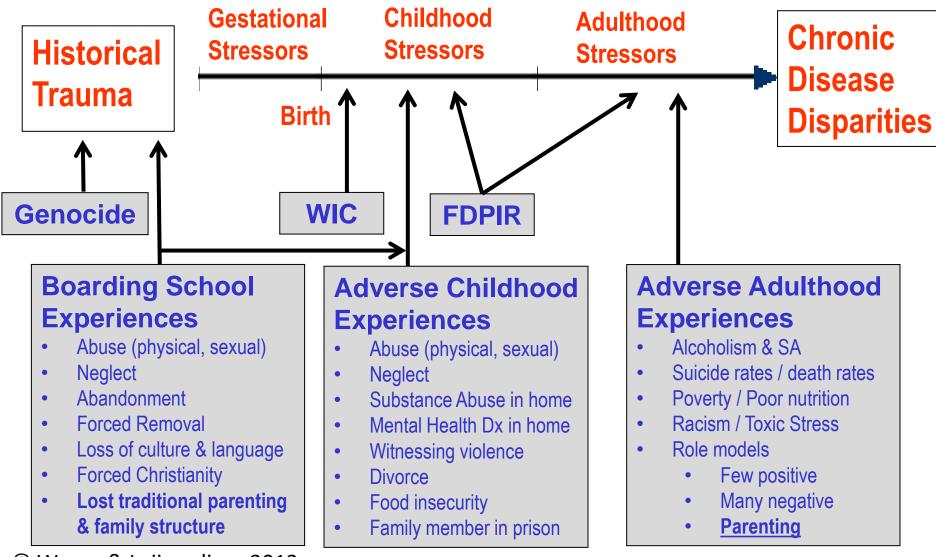


Life Potential (graduation rates, academic achievement, lost time from work)



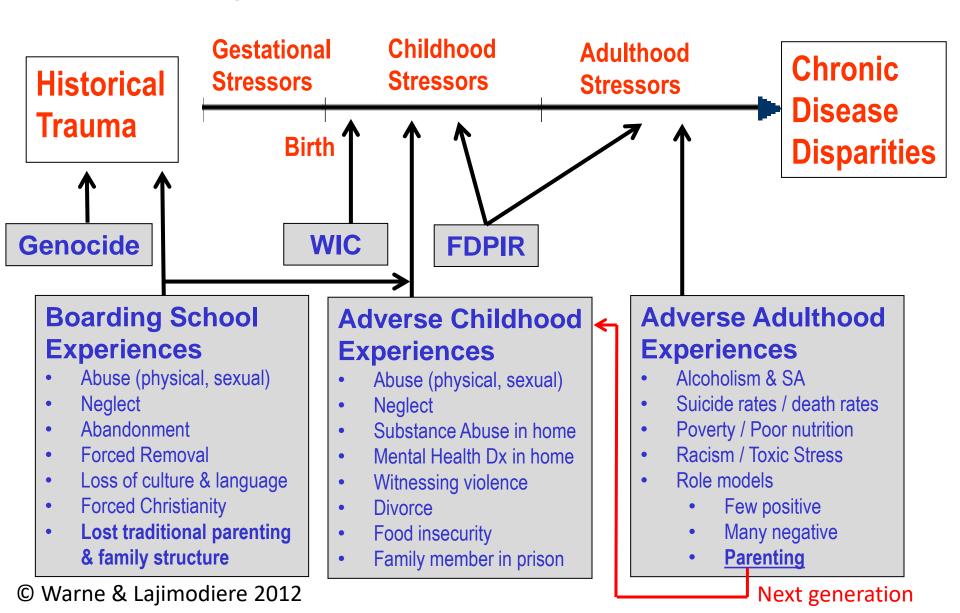
\*This pattern holds for the 40+ outcomes, but the exact risk values vary depending on the outcome.

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



© Warne & Lajimodiere 2012

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



### South Dakota Health Survey

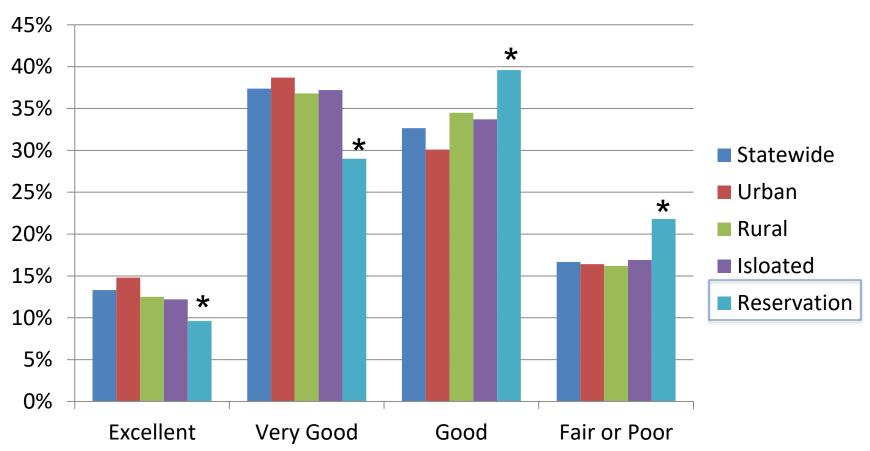
### The survey included questions on:

- Basic information, including age, sex, race;
- Self-reported health status, including chronic diseases, depression, and other health issues;
- Mental Health Screening;
- Access to services, including cost, distance, and other access issues; and
- Adverse Childhood Experiences.

	AI	Non-AI	Total	p-value
Employment status				<.0001
Not employed	31.60%	7.58%	9.64%	
Employed part time	11.91%	19.63%	18.97%	
Employed full time	49.59%	54.47%	54.05%	
Retired	6.89%	18.31%	17.34%	
Income (%FPL)				<.0001
<50% FPL	38.90%	12.73%	15.17%	
50-138% FPL	22.48%	10.18%	11.33%	
138-250% FPL	17.29%	22.46%	21.98%	
250-400% FPL	11.13%	28.75%	27.11%	
>400% FPL	10.20%	25.88%	24.42%	
Education				<.0001
Less than high school	9.95%	3.23%	3.85%	
High school diploma or GED	39.29%	32.40%	33.05%	
Vocational or 2-yr. degree	24.86%	23.87%	23.96%	
4-year college degree	22.47%	25.69%	25.39%	
Advanced or graduate degree	3.44%	14.81%	13.75%	

### Self-Rated Health Status

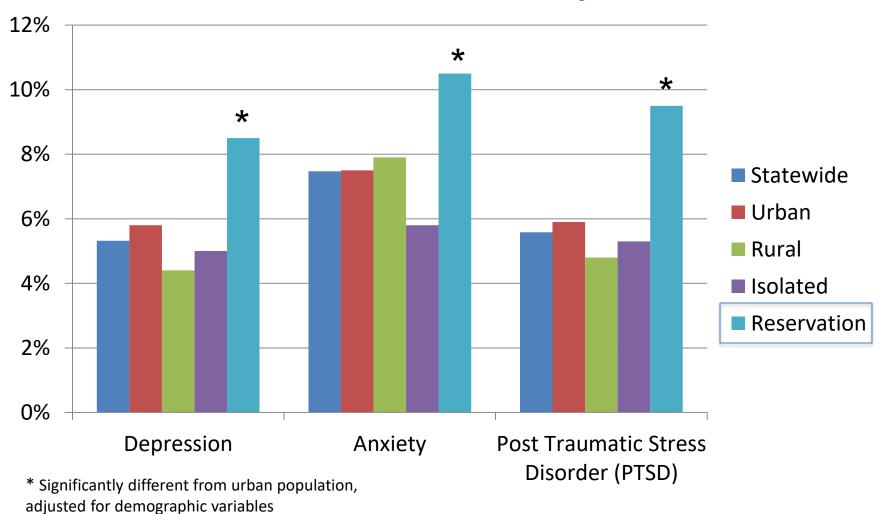




<sup>\*</sup> Significantly different from urban population, adjusted for demographic variables

#### Prevalence: Mental Health Screens

Participants who screened positive for a condition using standardized mental health screening tools



Adverse Childhood Experiences  Domains	American Indian (n = 516)	Non-American Indian (n = 7078)	Significance
Abuse			
Emotional Abuse	30.10%	17.41%	.0008*
Physical Abuse	24.51%	12.31%	.0002*
Sexual Abuse	15.53%	9.60%	.0263*
Neglect			
Emotional Neglect	25.87%	14.00%	.0005*
Physical Neglect	15.89%	2.78%	<.0001*
Household Dysfunction			
Mother Treated Violently	23.76%	5.31%	<.0001*
Household Substance Abuse	50.04%	21.49%	<.0001*
Household Mental Illness	24.36%	13.89%	.0032*
Parental Separation or Divorce	39.34%	20.17%	<.0001*
Incarcerated Household Member	22.57%	3.73%	<.0001*

### Al ACE Disparities in South Dakota

	AI	Non-AI	p-value
Number of ACEs (Score)			<.0001*
0	16.84%	50.02%	
1	21.59%	23.02%	
2	16.20%	9.60%	
3	12.99%	6.09%	
4-5	13.10%	7.38%	
≥6	19.28%	3.89%	

Note

<sup>\*</sup>statistically significant

## Significant Challenges

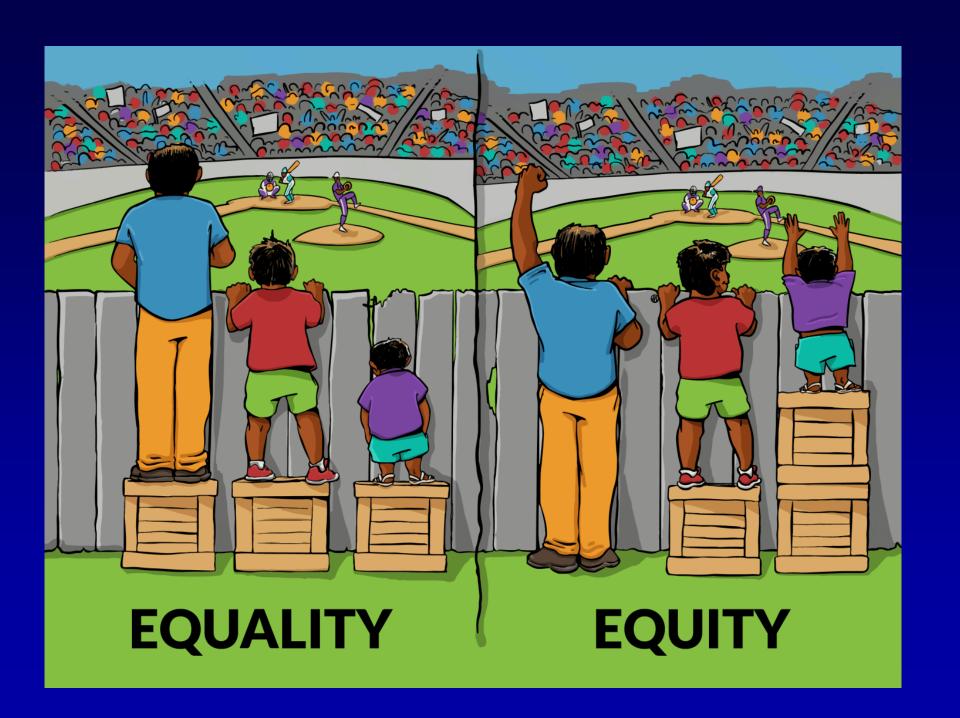
#### **Social Determinants**

- Poverty
- Trauma
- Politics
- Inattention/Neglect
- Racism
- Inequity

#### **Outcomes**

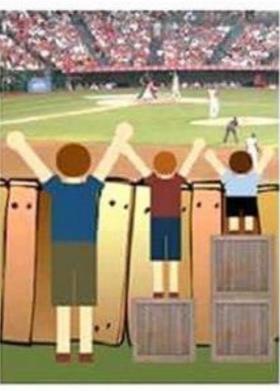
- Health Disparities
- Education Inequality
- Generational Poverty
- Ongoing Racism
- Worsening Inequity
- Suffering and Death

Need to address *equity* in a comprehensive manner—medical, behavioral, public health...



### **Equality, Equity, Systemic Barriers**







### Research and Programming Needs

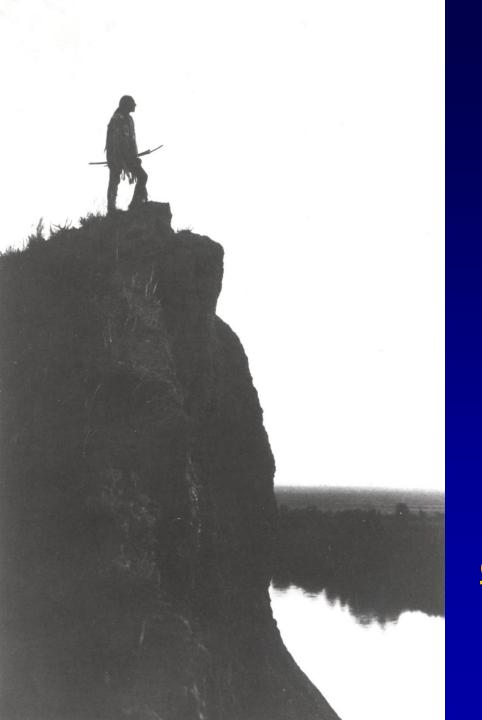
- Improve understanding of Historical Trauma
- How do we prevent ACEs?
  - -Home visiting, parenting skills, community engagement
- How do we mitigate the impact of HT and ACEs?
- Develop a Diverse Workforce
- UND INMED & MPH Program
- PhD in Indigenous Health

### **Blackfeet Saying**

A child is sacred. And when that child comes into the home, the family must welcome it. And if the child is happy and feels the want, he will come into this world very, very strong. And not to know this is to know nothing.







#### **Donald Warne**

donald.warne@med.und.edu