



# Great Lakes Inter-Tribal Epidemiology Center STARS in Public Health

April 19, 2018



*“Improving the Health of  
American Indians and Alaska Natives”*

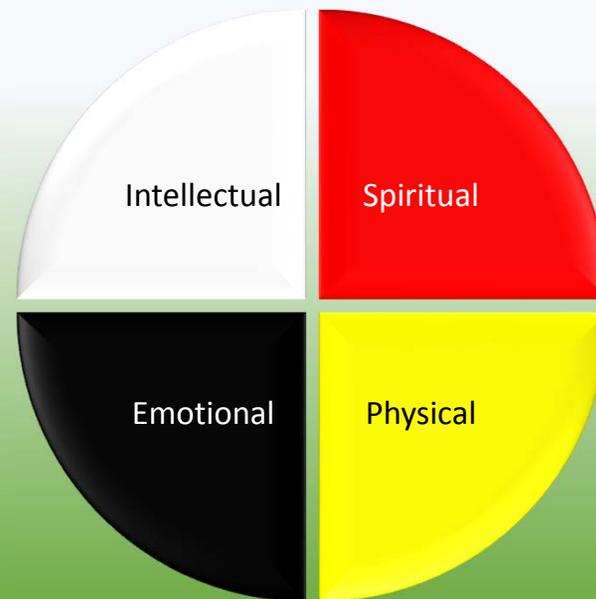
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Great Lakes Inter-Tribal Council, Inc.



# Indigenous Concept of Health

- Health is Holistic
- Balance between the physical, mental, spiritual, and emotional



# American Indian/Alaska Native Health Disparities

- American Indian/Alaska Natives nationally experience disparities related to
  - Lower socioeconomic status
  - Lower education rates
  - Social determinates of health
  - Higher prevalence of illness and mortality



# Ten Leading Causes of Death in the U.S. for AI/AN as Compared to NHW, 1999-2009

## AI/AN

1. Diseases of the Heart
2. Cancer
3. **Unintentional Injuries**
4. **Diabetes**
5. ***Chronic liver disease & Cirrhosis***
6. Chronic lower respiratory diseases
7. Stroke
8. ***Suicide***
9. Influenza and Pneumonia
10. Kidney Disease

## U.S.

1. Disease of the Heart
2. Cancer
3. Stroke
4. Chronic lower respiratory diseases
5. Unintentional Injuries
6. Alzheimer's
7. Diabetes Mellitus
8. Influenza and Pneumonia
9. Kidney Disease
10. Suicide



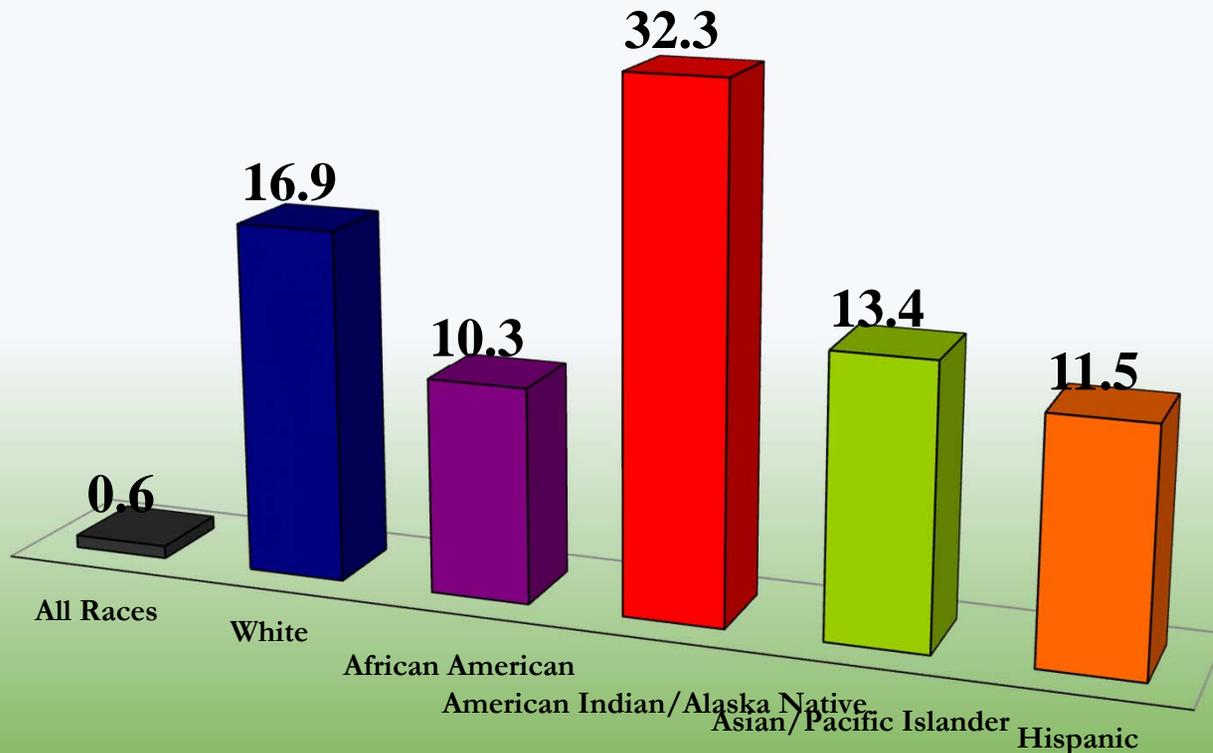
# American Indian/Alaska Native Health Disparities

- American Indians and Alaska Natives die at higher rates than other Americans
  - Chronic liver disease and cirrhosis (368% higher)
  - Diabetes mellitus (177% higher)
  - Unintentional injuries (138% higher)
  - Assault/homicide (82% higher)
  - Intentional self-harm/suicide (65% higher)
  - Chronic lower respiratory diseases (59% higher)

(Age-adjusted rates adjusted for misreporting of American Indian and Alaska Native race on state death certificates; 2006-2008 rates)



# Suicide Death Rates for Males Ages 15-24 Per 100,000 Persons by Racial Group 2007



SUPPLEMENT TO

American Journal of  
**PUBLIC  
HEALTH**

A PUBLICATION OF  
AMERICAN PUBLIC HEALTH ASSOCIATION

Geographic Variation in Colorectal Cancer Incidence and Mortality | Perspectives on Mortality Data From the Indian Health Service | Racial Misclassification of American Indians and Alaska Natives | **AMERICAN INDIAN AND ALASKA NATIVE MORTALITY** | Disparities in Cancer Mortality and Incidence Among AI/AN People | American Indian Health Policy | The Alcohol-Attributable Death Rate Disparity Between American Indians and Alaska Natives and Non-Hispanic Whites | What Are the Causes of Suicide Among Young Alaska Native Men?

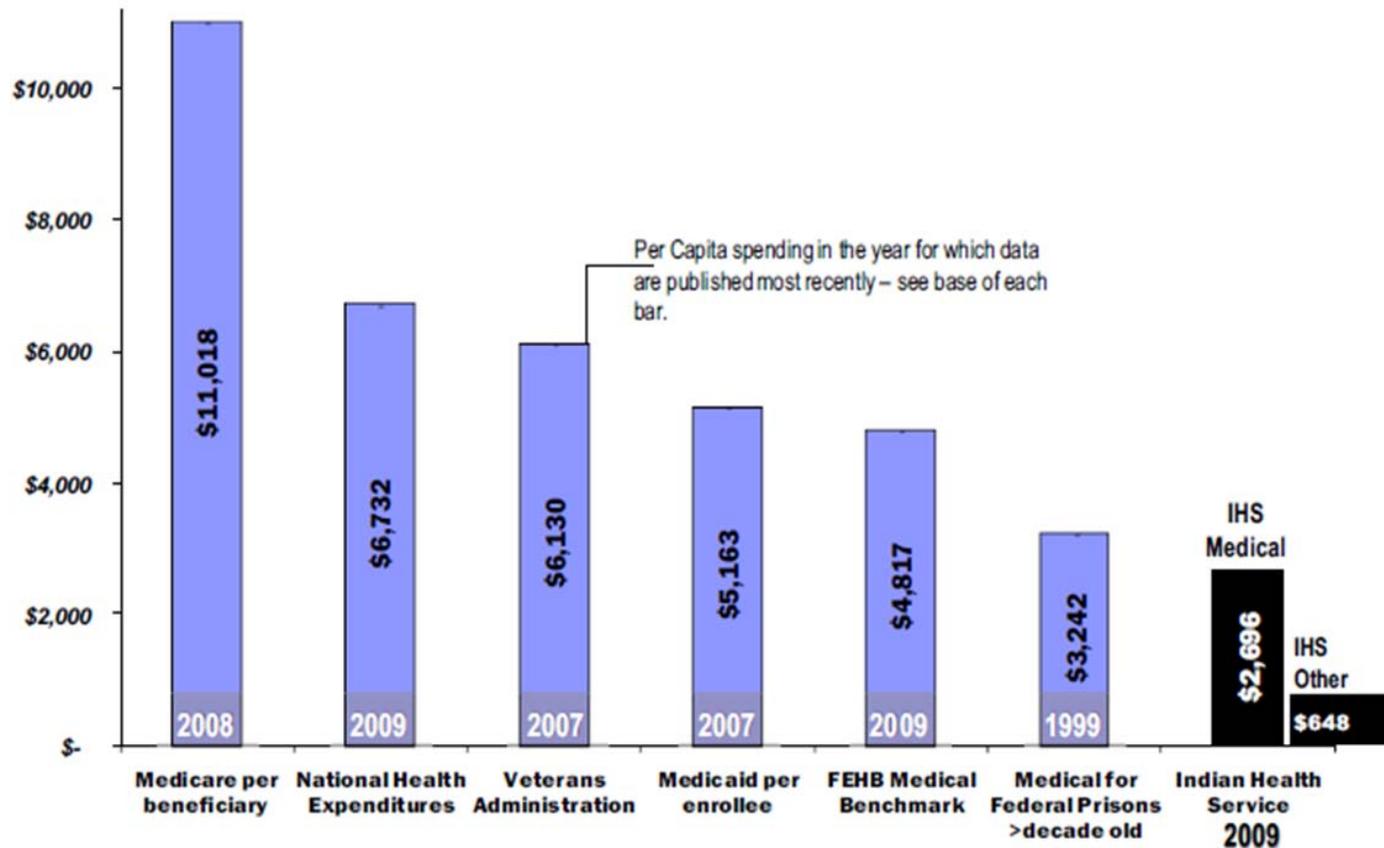


- **4th most accessed issue in 2014**
  - Coauthor:
  - Racial Misclassification of American Indians and Alaska Natives by Indian Health Service Contract Health Service Delivery Area
  - One of the most cited articles for the journal





## 2009 IHS Expenditures Per Capita and Other Federal Health Care Expenditures Per Capita



See page 2 notes on reverse for data sources and extrapolation assumptions.

11/5/2010





TRIBAL  
EPIDEMIOLOGY  
CENTERS

# Tribal Epidemiology Centers (TECs)



# Context of Epidemiology in Indian Country

- IHS provides some epidemiological support through the Division of Epidemiology and Disease Prevention
- Tribes and urban Indian communities have varied relationships and level of support from federal, state and local public health
- Many Tribes and urban Indian communities have little established internal epidemiological capacity
- Serve American Indian/Alaska Native IHS, Tribal, and urban communities (I/T/U)
  - Manage public health information systems, investigate diseases of concern, manage disease prevention and control programs, respond to public health emergencies, and coordinate these activities with other public health authorities



# TEC Funding

- Authorized through the Indian Health Care Improvement Act (IHCA) of 1996
  - Permanently re-authorized via the permanent renewal of IHCA as part of the Affordable Care Act (2010)
- Primarily funded through Cooperative Agreements with IHS
- Receive competitive grant funding through other sources (CDC, OMH, etc.)



# TECs' Mission

To improve the health of American Indian/Alaska Native by:

- Identifying and understanding health problems and disease risks
- Strengthening public health capacity
- Developing solutions for disease prevention and control



# Seven Core Functions of TECs

1. Collect data relating to, and monitor progress made toward meeting, each of the health status objectives of the Tribes and urban Indian organizations (ITUs) served;
2. Evaluate existing delivery systems, data systems, and other systems that impact the improvement of Indian health;
3. Assist ITUs in identifying highest-priority health status objectives and the services needed to achieve those objectives, based on epidemiological data;
4. Make recommendations for the targeting of services needed;
5. Make recommendations to improve health care delivery systems for Indians;
6. Provide requested technical assistance to ITUs in the development of local health service priorities and incidence and prevalence rates of disease and other illness in the community; and
7. Provide disease surveillance and assist to promote public health.

<https://tribalepicenters.org/7-core-functions/>

# Public Health Authority

- For the purposes of HIPPA:
  - A “public health authority” is an agency or authority of the United States government, a State, a territory, a political subdivision of a State or territory, or Indian tribe that is responsible for public health matters as part of its official mandate, as well as a person or entity acting under a grant of authority ... *(45 CFR 164.501)*

<http://www.hhs.gov/hipaa/for-professionals/special-topics/public-health/index.html>



# TECs as Public Health Authorities

- HHS is directed to give TECs access to use of the data, data sets, monitoring systems, delivery systems, and other protected health information in the possession of the Secretary
- TECs have the legal authority to access the systems listed above but have a hard time getting the data
- It is important for the Centers for Disease Control and Prevention to provide TECs technical assistance
- Each IHS Area must have TEC access



# TEC Locations



\*The Great Lakes region also includes parts of northern Indiana and the city of Chicago <https://tribalepicenters.org/12-tecs/>

# TECs: Data

- Serve as a trusted intermediary
  - Advocate for data ownership and protection
  - Data sharing and use agreements
  - Permission for data release
  - Secured data repository
- Build data capacity
  - Consult with Tribal communities on use of health data for planning, decision making and evaluation
- Address data quality at all levels
- American Indian/Alaska Native data quality issues:
  - Misclassification
  - Missing data
  - Data accuracy
  - Quantity of data





# Great Lakes Inter-Tribal Epidemiology Center

A program of the Great Lakes Inter-Tribal  
Council, Inc.



# GLITEC Team



# GLITC and GLITEC Missions

## GLITC Mission

To enhance the quality of life for all Native people

## GLITEC Mission

To support Tribal communities in their efforts to improve health by assisting with data needs through partnership development, community based research, education and technical assistance

<http://www.glitc.org/programs/epi-home/>

<http://www.glitc.org/>



# Great Lakes Inter-Tribal Epidemiology Center

- **GLITEC**

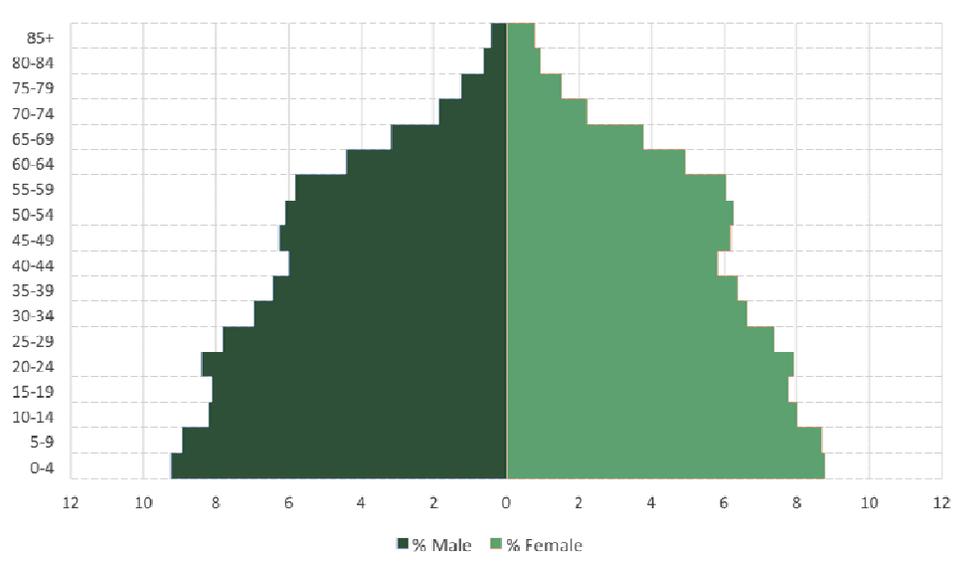
- Serves 34 Tribes,
- Three IHS Service Units and;
- Four Urban Indian Health Programs.

- **GLITEC's Principles of Operation**

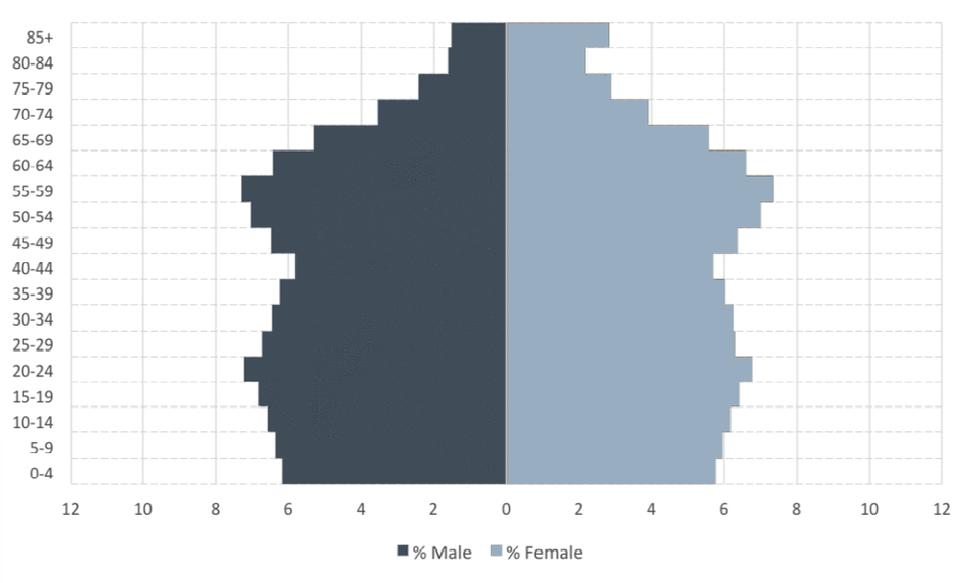
- Respect for Tribal sovereignty in service requests
- Data confidentiality, protection and security
- Tribal ownership of data
- Establishing transparent, trusting relationships
- Inclusion and representation
- Cultural competency



# American Indian/Alaska Native Age/Sex Distribution, Michigan, Minnesota, and Wisconsin Combined, 2016



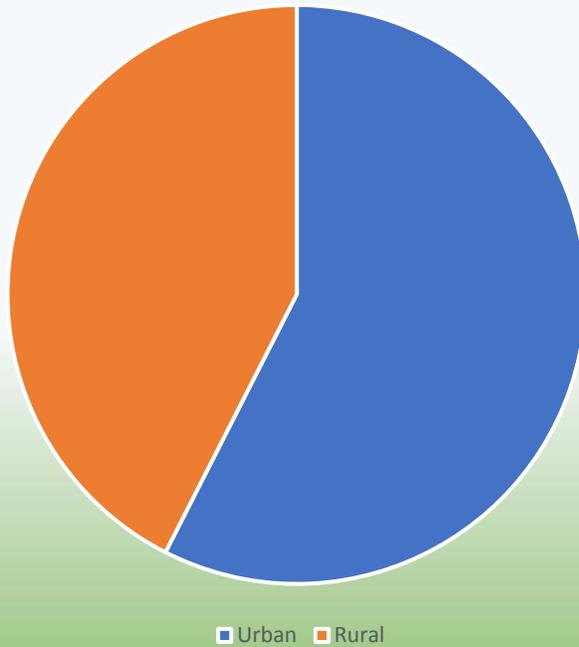
# All Races Population Age/Sex Distribution, Michigan, Minnesota, and Wisconsin Combined, 2016



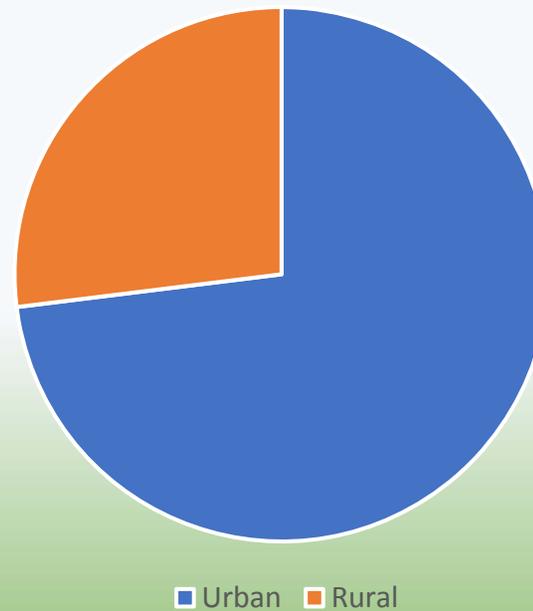
Data Source: Race Alone, Inter-Censual Estimates, U.S. Census Bureau Annual State Resident Population Estimates for 6 Race Groups (5 Race Alone Groups and Two or More Races) by Age, Sex, and Hispanic Origin: April 1, 2010 to July 1, 2016

# Urban and Rural Residency of American Indian/Alaska Natives<sup>1</sup> and All Races<sup>2</sup> in Michigan , Minnesota, and Wisconsin Combined, by Percent, 2015

American Indian/Alaska Native



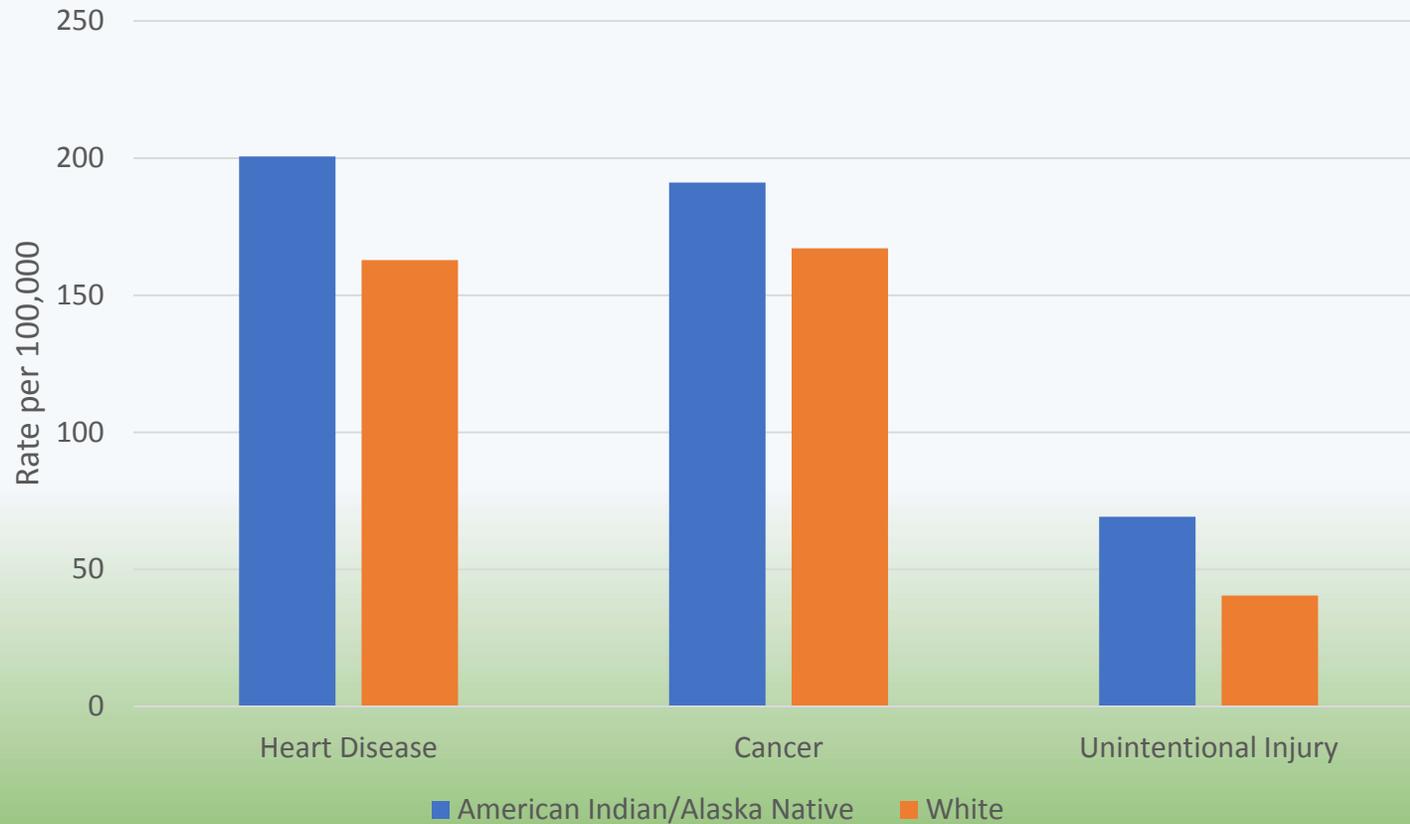
All Races



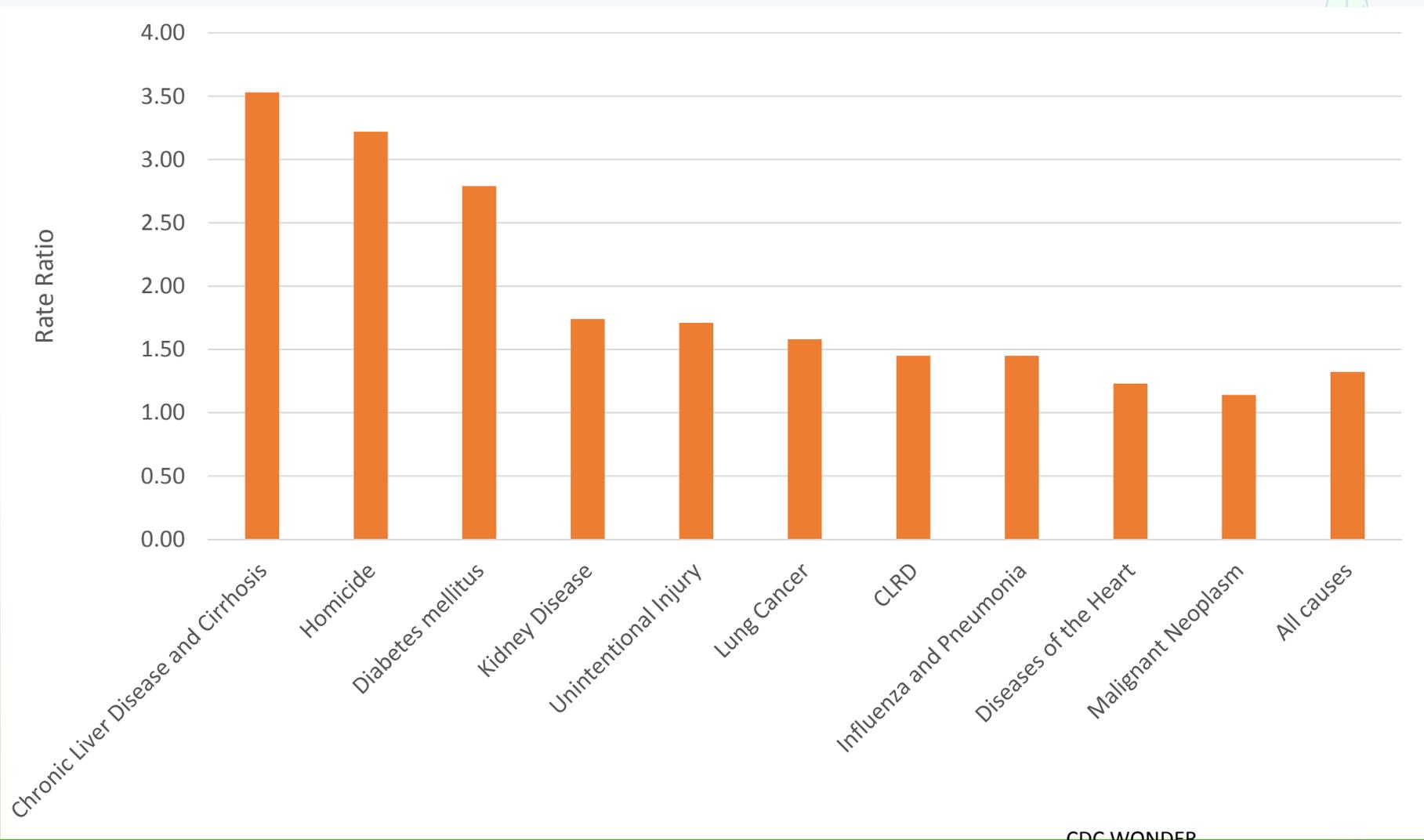
<sup>1</sup>2010 Decennial Census, Table HCT1

<sup>2</sup>2010 Decennial Census, Table P2

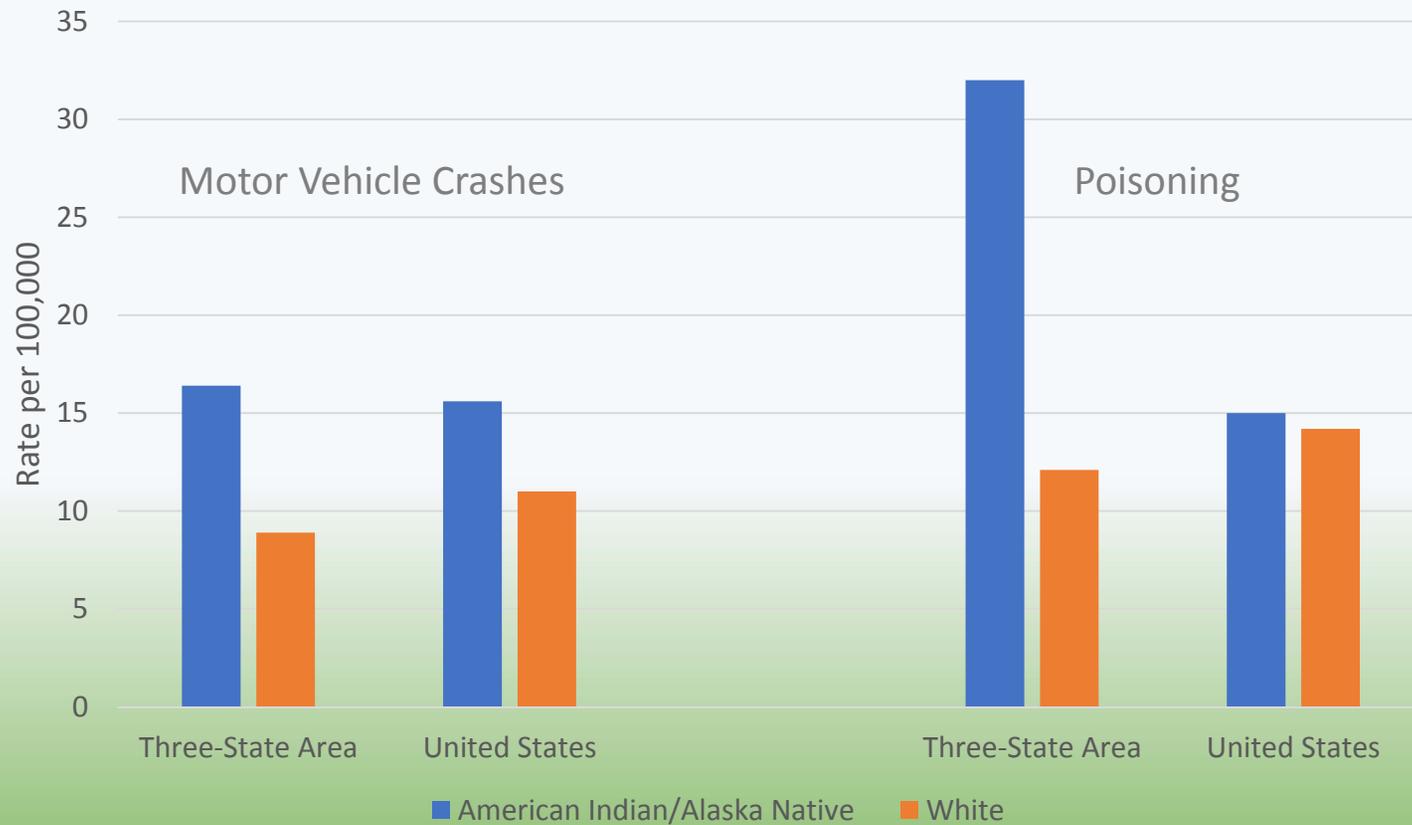
## Top Three Causes of Death for American Indian/Alaska Natives and Whites, Age-Adjusted Rates (per 100,000), Three-State Area, 2010-2014



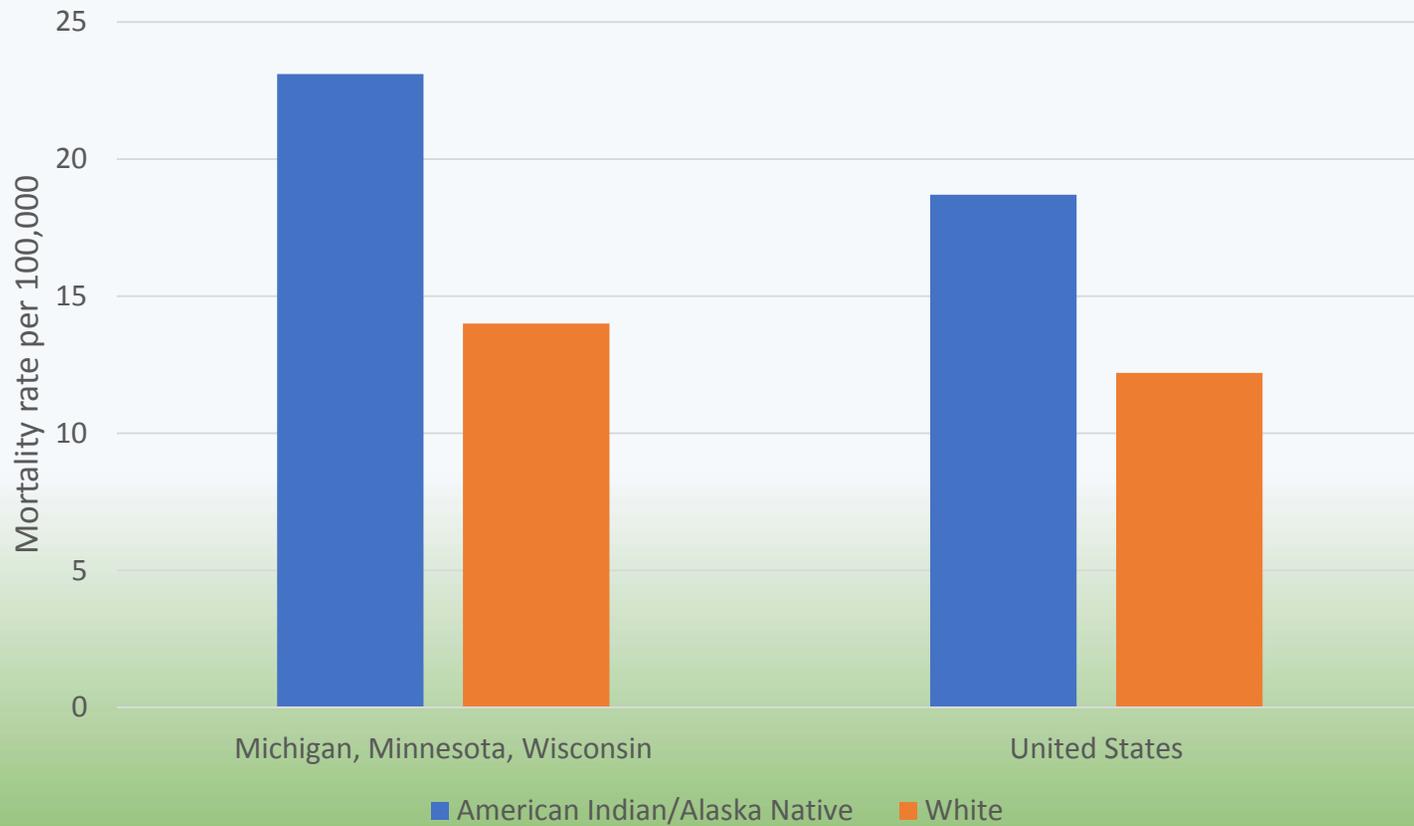
# Disparity Ratios for Causes of Death Where American Indian/Alaska Natives Had Statistically Significant Higher Mortality Rates than Whites, Michigan, Minnesota, and Wisconsin 2010-2014



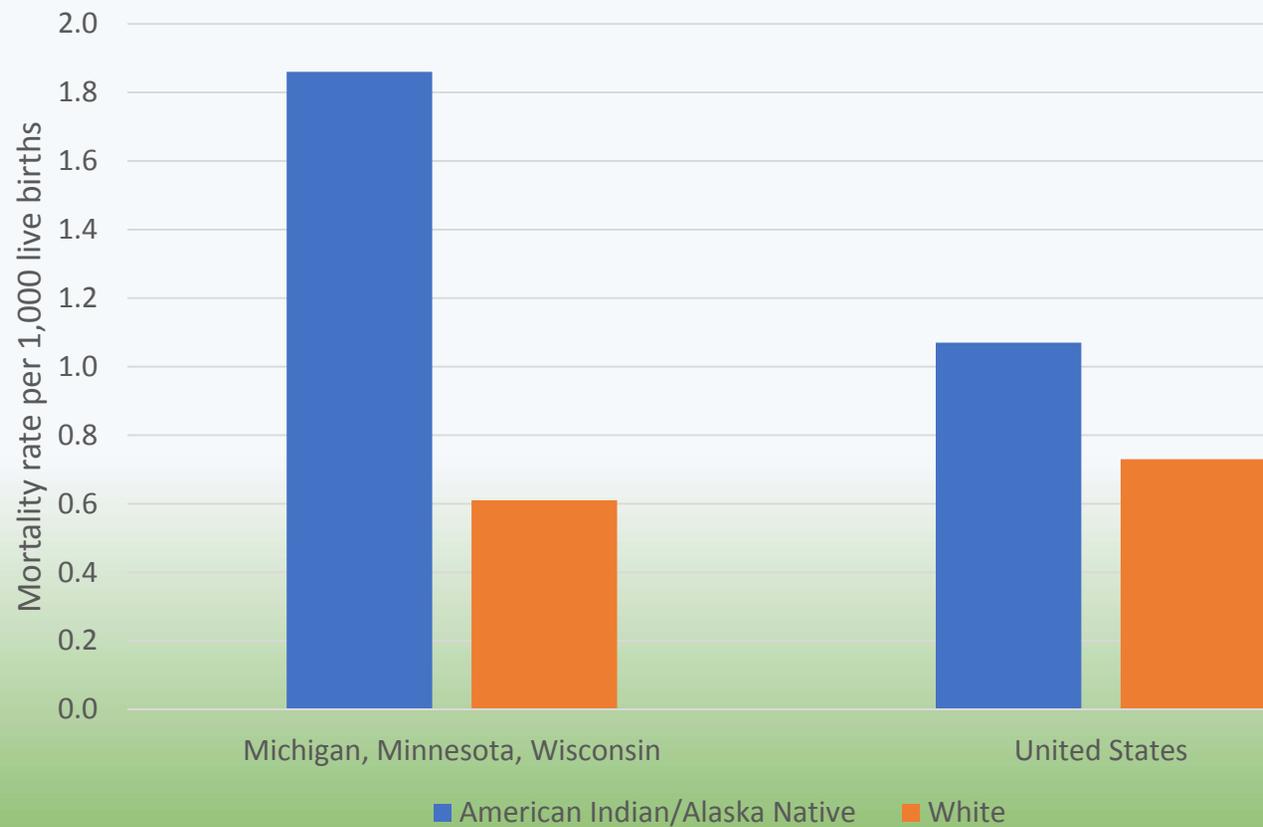
## Unintentional Motor Vehicle Crash and Unintentional Poisoning Age-Adjusted Mortality Rates (per 100,000) for American Indian/Alaska Natives and Whites in the Three States Combined and the United States, 2011-2015



## Suicide Mortality Rates (per 100,000) Among 15 to 24 Year Olds, Three-State Area and Nationally, 2012-2014

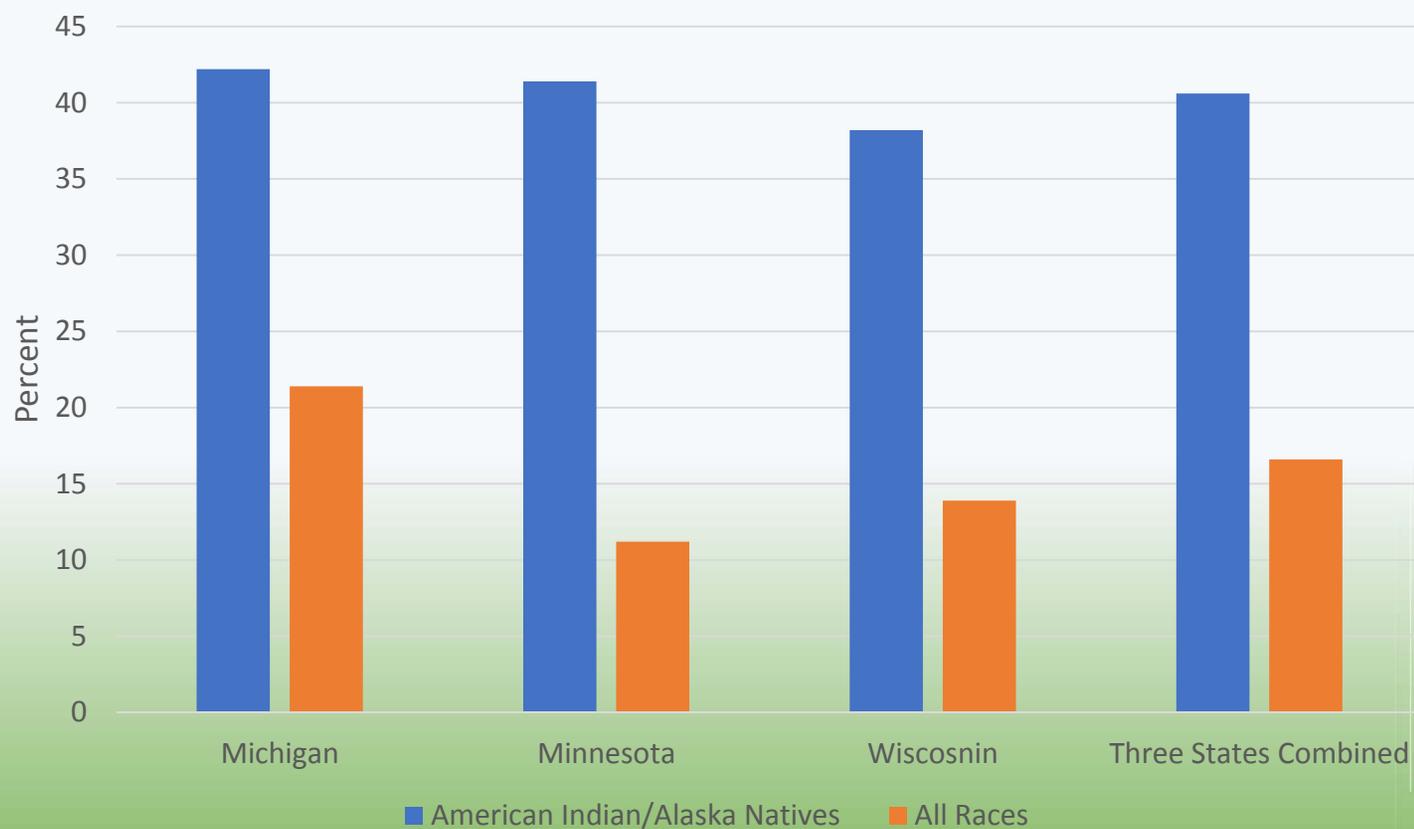


## Sudden Unexplained Infant Deaths (SUID) Mortality Rates (per 1,000 Live Births), Three-State Area and Nationally, 2010-2014\*

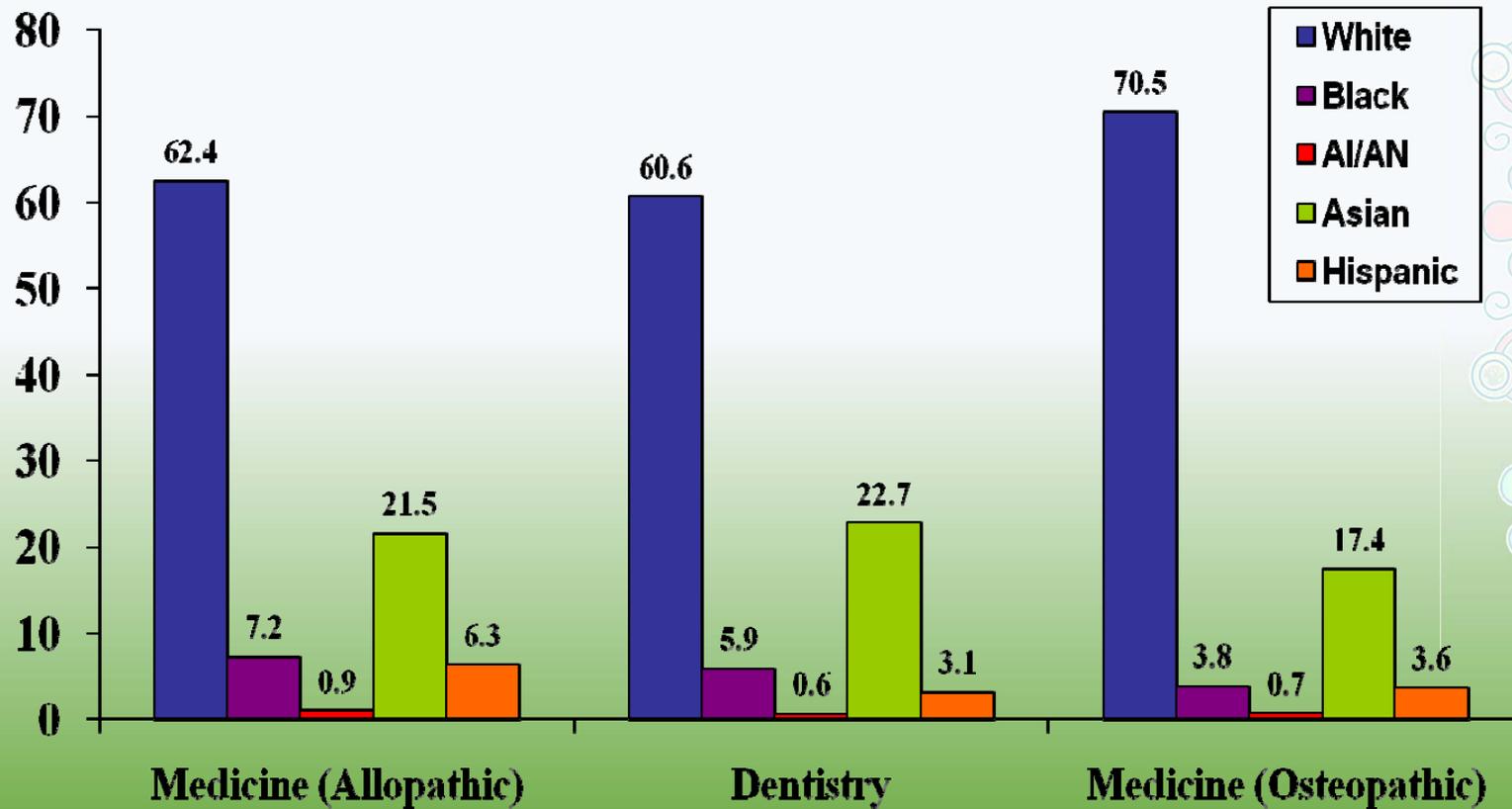


\*SUID consists of unknown cause, accidental suffocation and strangulation in bed (ASSB), and SIDS

## Smoking during Pregnancy (by Percent), Mothers of American Indian/Alaska Native and All Races Infants, Michigan, Minnesota, and Wisconsin, 2009-2013



# Percent Distribution of Enrollment of Minorities in Medical and Dental Schools by Race/Ethnicity 2007-2008





# Great Lakes Inter-Tribal Epidemiology Center



Tribal Public Health Accreditation



“Public Health Accreditation”- is the measurement of a health department’s public health performance and systems against a set of national standards based on the 10 essential services of public health.

1. **Monitor** health status to identify community health problems.
2. **Diagnose and investigate** health problems and health hazards in the community.
3. **Inform, educate and empower** people about health issues.
4. **Mobilize** community partnerships to identify and solve health problems.
5. **Develop policies and plans** that support individual and community health efforts.
6. **Enforce** laws and regulations that protect health and ensure safety.
7. **Link** people to needed personal health services and assure the provision of health care when otherwise unavailable.
8. **Assure** a competent public health and personal health care workforce.
9. **Evaluate** effectiveness, accessibility and quality of personal and population-based health services.
10. **Research** for new insights and innovative solutions to health problems.



# The Role of Data Tribal Public Health

- Data and information underpin nearly every aspect within healthcare and public health.
- **Why do you collect data?**
  - To answer a specific question(s)!
- Analyzing data produces information that can be used for decision making purposes
- This information can be used for planning, developing programs, trends analysis and managing performance
- Understanding how data interrelates only increases the ability to link information, enhance performance and strategize more effectively



# Data Continued

- Comparisons from state-to-state, region to region, tribe to tribe, and to national data sets is important to identify health status.
- This will help to evaluate and develop interventions related to the population needs assessment and programs' rationales.
- The more valid the data obtained from surveillance the more realistic and effective the population based interventions will be to control and prevent diseases.



# Data Continued

- Therefore, it is crucial to be informed about different methods to collect, analyze, and disseminating data
- How to identify sub-populations that make be at risk or impacted by poor health conditions.
  - Who is Impacted?
    - Children
    - Elderly
    - Specific Genders
- Improve surveillance systems and create new ones that ensure timely data at the lowest possible cost to public health



# GLITEC's Assistance in Tribal Public Health Accreditation

- Assistance in the development of “data sharing agreements”
- Provide Technical Assistance for Community Health Assessments
  - Use the PHAB standards!
- Foster relationships between governmental agencies
- Assist in the application process
- Provide training in methods of epidemiology



# GLITEC Activities

- Participates in Tribal Consultation Sessions
  - Regarding health disparities in the Great Lakes region
- Tribal-specific and Area-wide health status reports
  - Community health profiles
  - Disease/health condition special reports
- **CDC Infrastructure Cooperative Agreement Training**
  - Invite all Tribal Nations, Urban Programs and partners to participate
    - Epidemiologic methods
    - Data collection
    - Evaluation
    - Disease control and prevention



# GLITEC Activities

- Tri-State Surveillance project for Opioids
  - Developed LOI to Council of State and Territorial Epidemiologist
- Applying to the CDC: “Tribal Public Health Capacity Building and Quality Improvement Umbrella Cooperative Agreement”
  - Project is centered to prevent substance abuse (opioids, methamphetamines, alcohol, etc.) through culturally informed interventions
    - Tribal Public Health Workforce
    - Tribal Data/Information Systems Including Epidemiologic Surveillance Capacity Expansion
    - Tribal Public Health Programs and Services



# GLITEC Activities

- Serve on Tribal, local, state, regional, and federal advisory groups
- Advocate for the inclusion and oversample of American Indians on national and state surveys
- Partnerships with:
  - Academia
  - Non-profits
  - State public health
  - Federal agencies





Treat all men alike.  
Give them all the same  
law. Give them all an  
even chance to live and  
grow. All men were  
made by the same  
Great Spirit Chief.  
They are all brothers.  
The earth is the  
mother of all people,  
and all people have  
equal rights upon it.

*Chief Joseph, Nez Perce*



# Thank you! Questions!



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