

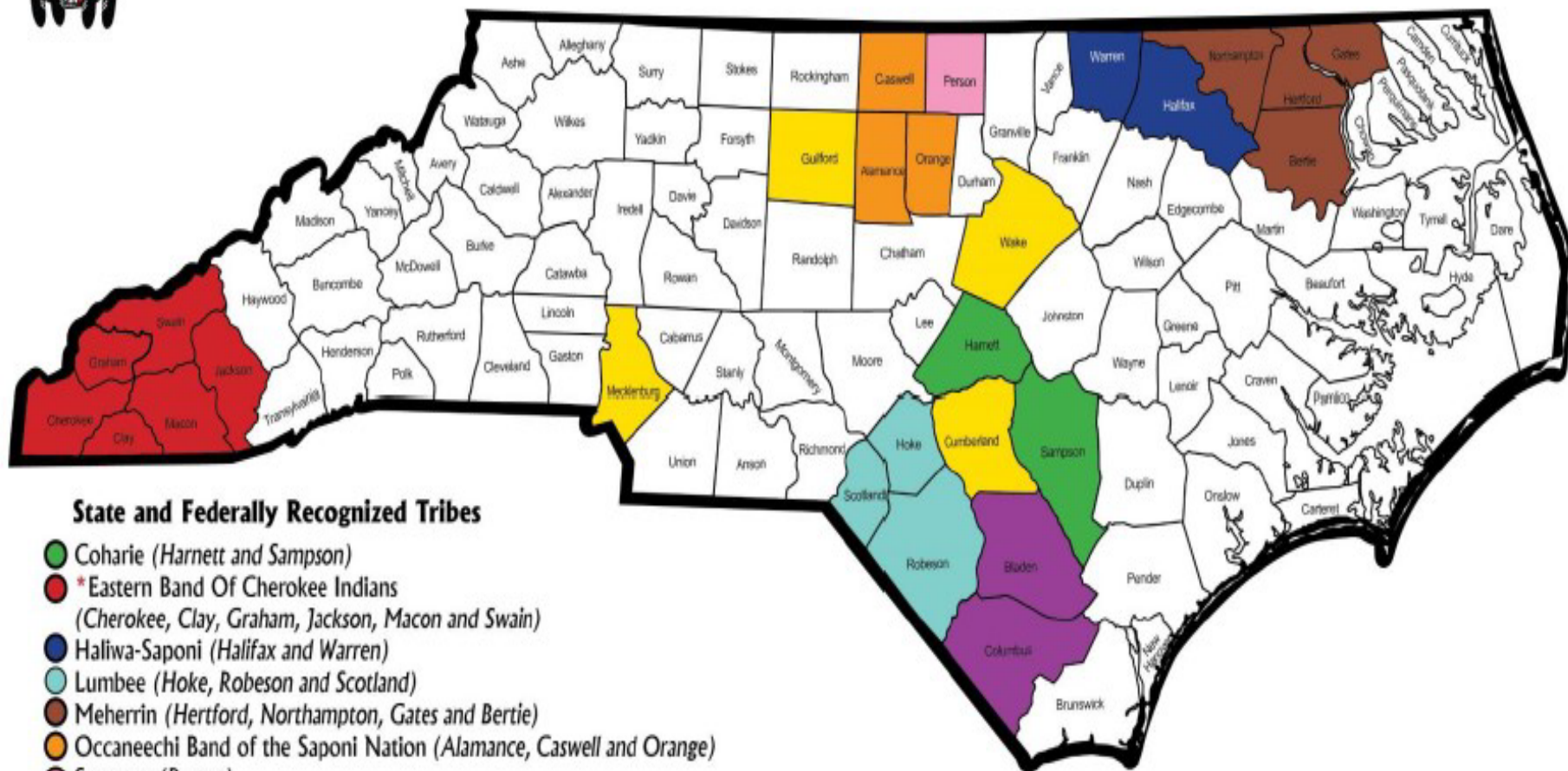
# **UNDERSTANDING AND ADDRESSING HEALTH DISPARITIES FOR AMERICAN INDIANS IN THE CAROLINAS**

RONNY A. BELL, PHD, MS (LUMBEE)  
FRED ESHELMAN PROFESSOR AND CHAIR  
DIVISION OF PHARMACEUTICAL OUTCOMES AND POLICY  
UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL





# N.C. TRIBAL AND URBAN COMMUNITIES



## State and Federally Recognized Tribes

- Coharie (Harnett and Sampson)
- \* Eastern Band Of Cherokee Indians  
(Cherokee, Clay, Graham, Jackson, Macon and Swain)
- Haliwa-Saponi (Halifax and Warren)
- Lumbee (Hoke, Robeson and Scotland)
- Meherrin (Hertford, Northampton, Gates and Bertie)
- Occaneechi Band of the Saponi Nation (Alamance, Caswell and Orange)
- Sappony (Person)
- Waccamaw Siouan (Bladen and Columbus)
- \* Federally Recognized

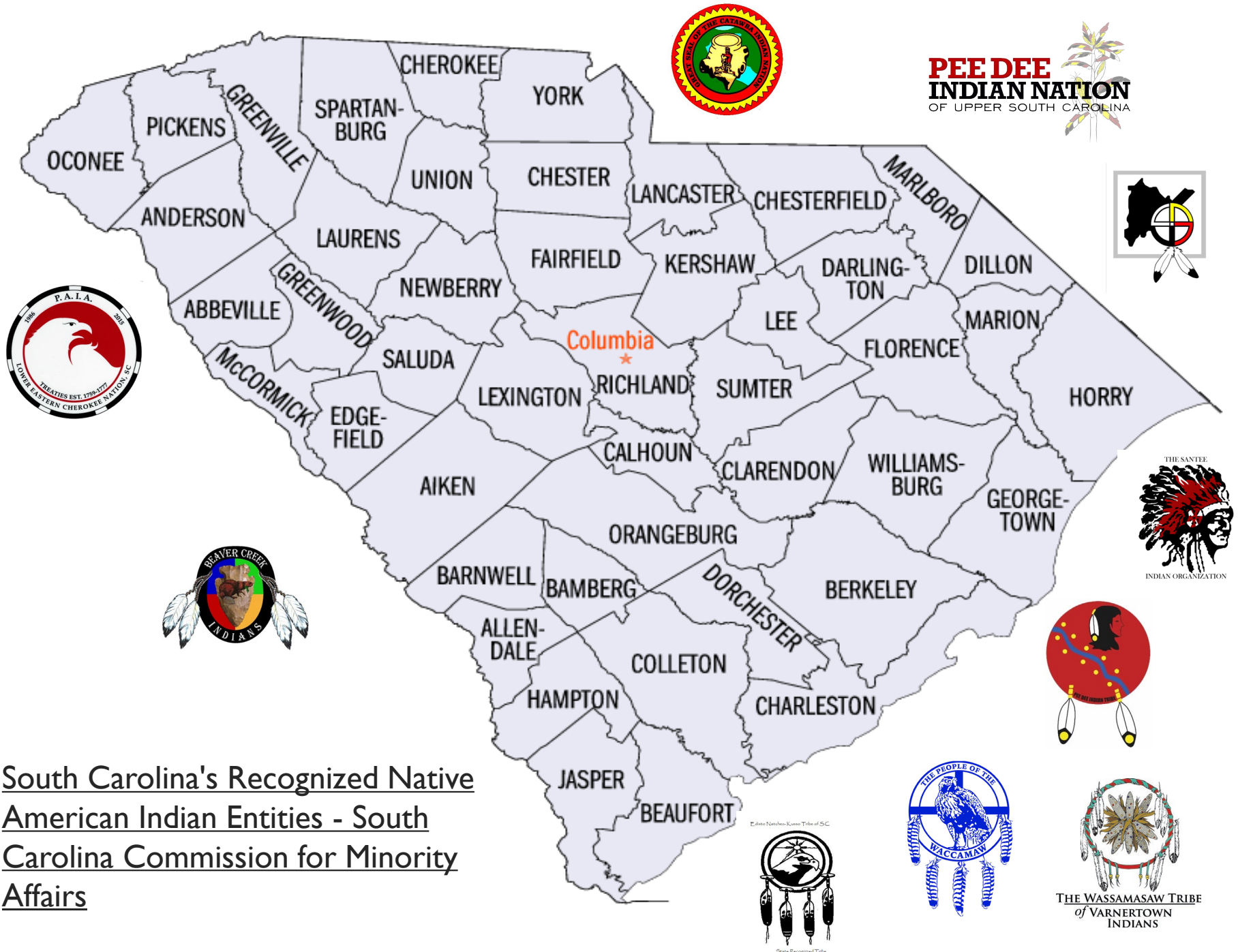
## Urban Indian Organizations

(Holding membership on the NC Commission of Indian Affairs):  
Cumberland County Association for Indian People  
Guilford Native American Association  
Metrolina Native American Association  
Triangle Native American Society

Areas in Color indicate counties where the eight Recognized Tribes of North Carolina reside.

Counties in yellow (Mecklenburg, Guilford, Cumberland and Wake)  
Location of American Indian Associations

Map published by the North Carolina Commission of Indian Affairs.



South Carolina's Recognized Native American Indian Entities - South Carolina Commission for Minority Affairs



2025

# CHILD HEALTH Report Card

Focus on  
School-Based  
Mental Health



NCIOM Child Health Report Card 2025

# NORTH CAROLINA HEALTH DISPARITIES

ANALYSIS REPORT • 2024



NC DEPARTMENT OF  
HEALTH AND  
HUMAN SERVICES  
Office of Health Equity

NC DHHS Health Disparities Report 2024

VISUAL 1: THE SIX KEY CATEGORIES IN HEALTH DISPARITIES



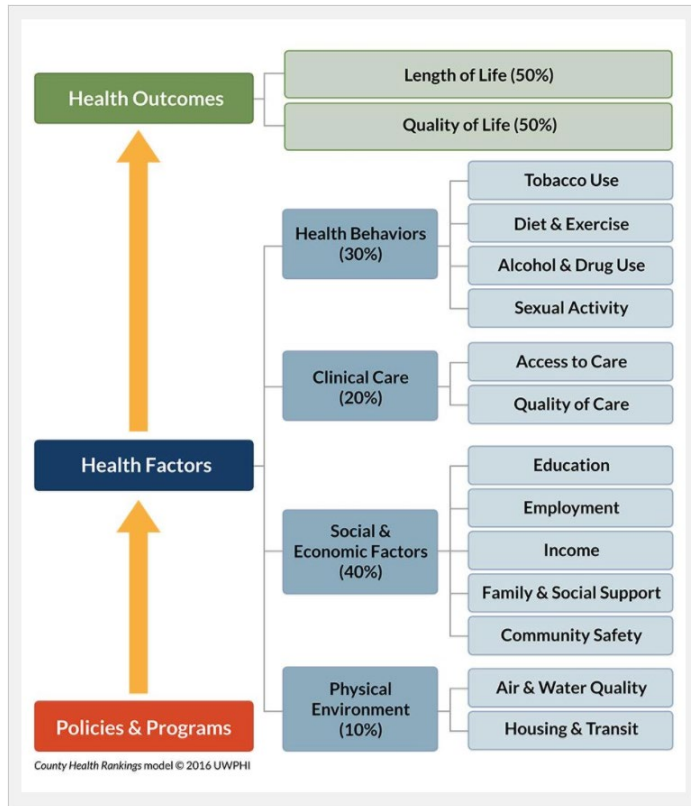
## Social Determinants of Health

*Compared to Non-Hispanic Whites, American Indians in North Carolina are:*

- **2 – 3 times more likely to live in poverty**
- **2 times more likely to be uninsured**
- **2.5 times less likely to have a college degree as an adult**

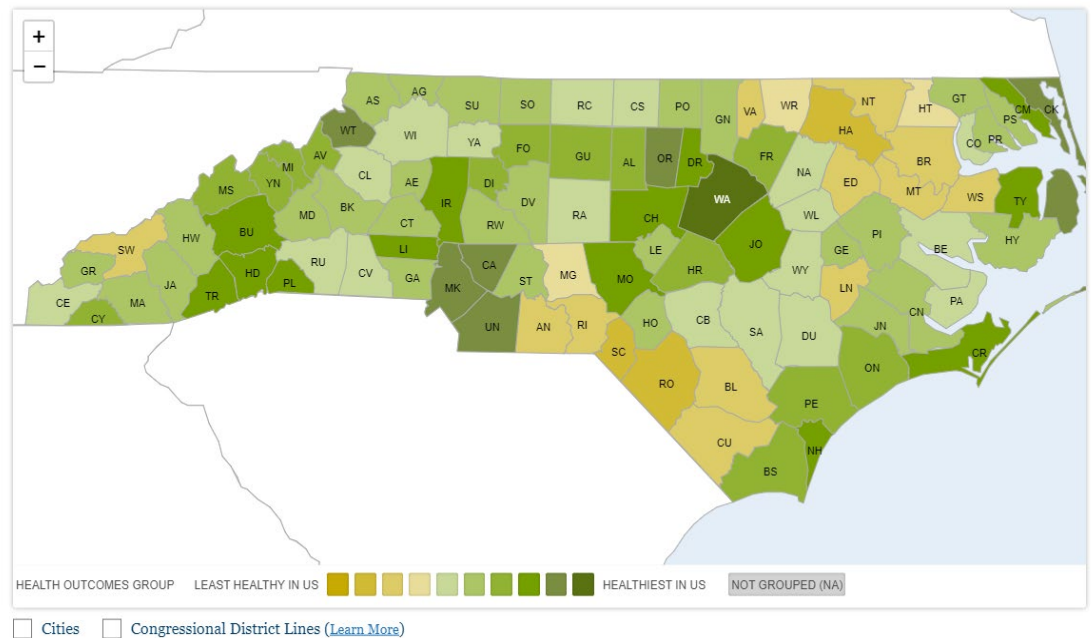
NC DHHS Health Disparities Report 2024

# North Carolina American Indian Health



**County Health Rankings & Roadmaps**

2024 Health Outcomes - North Carolina



[NC County Health Rankings](#)



## Health Outcomes/Health Factors

*Compared to Non-Hispanic Whites, American Indian children in North Carolina are:*

- 2 time more likely to die in the first year of life
- 2 – 3 times more likely to not be breast fed or to have a mother who smokes
- 3 times more likely to be born to a teen mother
- 2 times more likely to die before adulthood

NC DHHS Health Disparities Report 2024



# ACCESS TO CARE

GRADE	INDICATOR	DATA YEARS	CURRENT	BASE	% CHANGE	AFRICAN AMERICAN OR BLACK	AMERICAN INDIAN OR ALASKA NATIVE	ASIAN	HISPANIC OR LATINO	OTHER/ MULTIRACE	WHITE, NON-HISPANIC
<b>D</b>	<b>Oral Health</b> Kindergarten students with tooth decay	2022-2023, 2020-2021	19.9%	16.0%	24.4%	23.8%	23.6%	21.9%	23.9%	17.6%	16.1%
<b>F</b>	<b>School Health</b> School nurse to student ratio	2022-2023, 2020-2021	1:809	1:890	-9.1%	NA	NA	NA	NA	NA	NA
	School counselor to student ratio	2023-2024, 2021-2022	1:340	1:316	7.6%	NA	NA	NA	NA	NA	NA
<b>C</b>	<b>Health Services Utilizations and Immunization</b> Children with Medicaid who received a well-child checkup in the past year	2023, 2021	56.5%	55.8%	1.3%	NA	NA	NA	NA	NA	NA
	Children ages 19-35 months with appropriate immunizations	2023, 2021	76.8%	79.5%	-3.4%	NA	NA	NA	NA	NA	NA
	Adolescents ages 13-17 who have received 1 or more HPV vaccinations	2023, 2021	74.2%	85.0%	-12.7%	NA	NA	NA	NA	NA	NA
<b>A</b>	<b>Insurance Coverage</b> Children with health insurance coverage	2023, 2021	94.8%	94.5%	0.3%	96.3%	91.7%	96.5%	87.3%	85.1%	96.7%
	Parents without health insurance coverage	2023, 2021	11.3%	12.6%	-10.3%	8.6%	14.4%	3.4%	41.2%	22.4%	6.2%

# H HEALTHY BIRTHS

GRADE	INDICATOR	DATA YEARS	CURRENT	BASE	% CHANGE	AFRICAN AMERICAN OR BLACK	AMERICAN INDIAN OR ALASKA NATIVE	ASIAN	HISPANIC OR LATINO	OTHER/ MULTIRACE	WHITE, NON-HISPANIC
<b>B</b>	<b>Breastfeeding</b> Newborns who are breastfed exclusively for at least 6 months	2021, 2019	28.3%	22.1%	28.1%	NA	NA	NA	NA	NA	NA
<b>B</b>	<b>Preconception and Maternal Health and Support</b> Women ages 18-44 with health insurance coverage	2023, 2021	86.9%	86.9%	0.0%	93.0%	99.1%	NA	53.4%	92.7%	94.8%
	Women who receive early prenatal care	2023, 2021	72.0%	73.8%	-2.4%	65.6%	72.4%	74.1%	58.5%	69.0%	79.9%
<b>F</b>	<b>Birth Outcomes</b> Infant mortality rate per 1,000 live births	2023, 2021	6.9	6.8	1.5%	13.6	7.4	4.8	6.0	8.3	4.5
	Babies who are born before 37 weeks of pregnancy	2023, 2021	10.7%	10.8%	-0.9%	15.0%	11.1%	8.9%	9.5%	12.1%	9.5%
<b>C</b>	<b>Teen Births</b> Rate of births to teen girls age 15-19 per 1,000	2022, 2020	21.8	22.9	-4.8%	30.2	37.6	5.9	40.1	31.2	12.3

1. The increase in exclusive breastfeeding rates may be influenced by multiple factors, including expanded breastfeeding education efforts by the North Carolina Department of Health and Human Services (DHHS) and the nationwide infant formula shortage that began in 2022. The shortage, driven by supply chain disruptions and product recalls, led some families to seek alternative feeding options, including extended breastfeeding when feasible.

# H HEALTH RISK FACTORS

GRADE	INDICATOR	DATA YEARS	CURRENT	BASE	% CHANGE	AFRICAN AMERICAN OR BLACK	AMERICAN INDIAN OR ALASKA NATIVE	ASIAN	HISPANIC OR LATINO	OTHER/ MULTIRACE	WHITE, NON-HISPANIC
D	<b>Healthy Eating and Active Living</b>										
	Children ages 6-17 who are overweight or obese	2022-2023, 2021-2022	30.7%	32.8%	-6.4%	41.5%	NA	23.5%	27.2%	38.0%	27.1%
	Children who live in food insecure households	2022, 2020	19.6%	17.1%	14.6%	NA	NA	NA	NA	NA	NA
D	<b>Tobacco, Alcohol, Substance Use</b>										
	High school students who currently use:										
	Cigarettes	2023, 2021	3.9%	3.9%	0.0%	1.1%	5.0%	0.9%	4.6%	4.3%	5.0%
	Electronic Vapor Products	2023, 2021	21.4%	23.8%	-10.1%	21.1%	39.2%	10.0%	17.8%	32.5%	21.0%
	Alcohol	2023, 2021	20.5%	19.4%	5.7%	17.1%	27.5%	10.1%	18.2%	23.1%	22.9%
F	High school students who attempted suicide in the past year	2023, 2021	9.5%	10.1%	-5.9%	9.4%	7.1%	21.0%	11.7%	15.9%	7.6%
	Past year major depressive episode among adolescents ages 12-17	2022-2023, 2018-2019	19.1%	15.1%	26.8%	NA	NA	NA	NA	NA	NA
	Children ages 3-17 with reported difficulties accessing mental health treatment they they needed	2022-2023, 2020-2021	51.9%	37.0%	40.3%	NA	NA	NA	NA	NA	NA
D	<b>Education</b>										
	Third grade students reading at grade level	2023-2024 SY, 2021-2022 SY	48.6%	46.4%	4.7%	35.2%	40.3%	0.4%	34.2%	50.8%	60.9%
D	High school students who graduation on time	2023-2024 SY, 2021-2022 SY	86.9%	86.4%	0.6%	84.3%	82.4%	>95%	83.2%	83.2%	89.7%

## Health Outcomes

*Compared to Non-Hispanic Whites, American Indian adults in North Carolina are:*

- 2 times more likely to be diagnosed and 1.8 times more likely to die from diabetes
- 1.6 times more likely to die from heart disease, stomach cancer or kidney disease
- 1.5 times more likely to die from Alzheimer's Disease

[NC DHHS Health Disparities Report 2024](#)





## NORTH CAROLINA HEALTH DISPARITIES

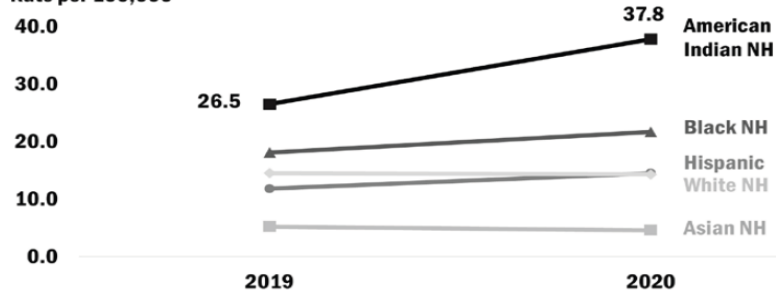
ANALYSIS REPORT • 2024



NC DEPARTMENT OF  
HEALTH AND  
HUMAN SERVICES  
Office of Health Equity

**FIGURE 1.**  
Unintentional MVT Injury Deaths by Race/Ethnicity among North Carolina Residents, 2019-2020

Rate per 100,000



## Health Outcomes

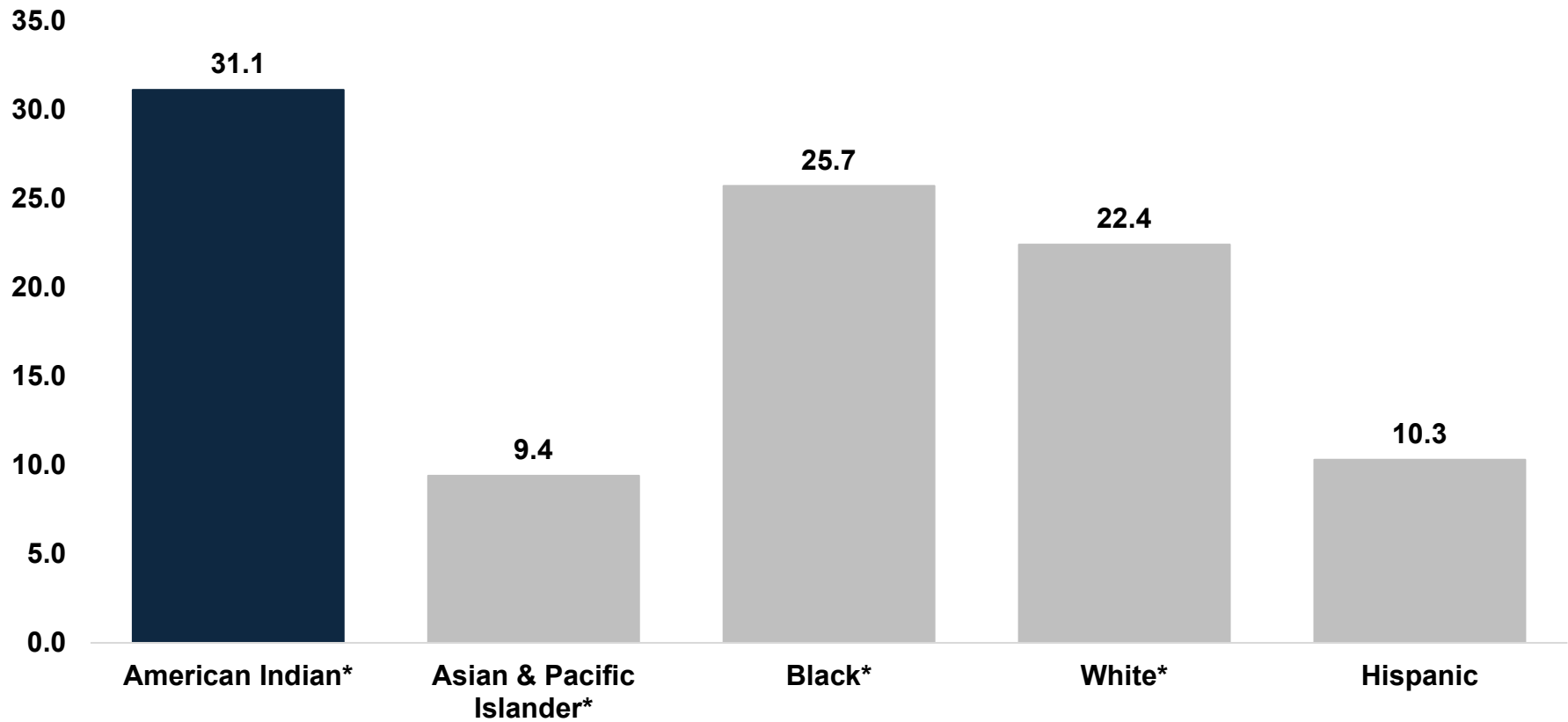
*Compared to Non-Hispanic Whites, American Indian adults in North Carolina are:*

- 2 – 5 times more likely to be diagnosed with a communicable disease, such as HIV/AIDS, syphilis, gonorrhea, and hepatitis B & C
- Almost six times more likely to be the victim of a violent death from homicide
- 2 times more likely to die in a motor vehicular accident

NC DHHS Health Disparities Report 2024

# Non-Hispanic American Indian residents experienced the highest rates of violent death in NC from 2012-2021.

Violent Death Rates (per 100,000) among NC Residents, 2012-2021



**\*Non-Hispanic**  
Limited to NC residents, suicides limited to ages 10 and older.  
Source: NC-VDRS, 2017-2021  
Analysis by Injury Epidemiology, Surveillance and Informatics (ESI) Unit

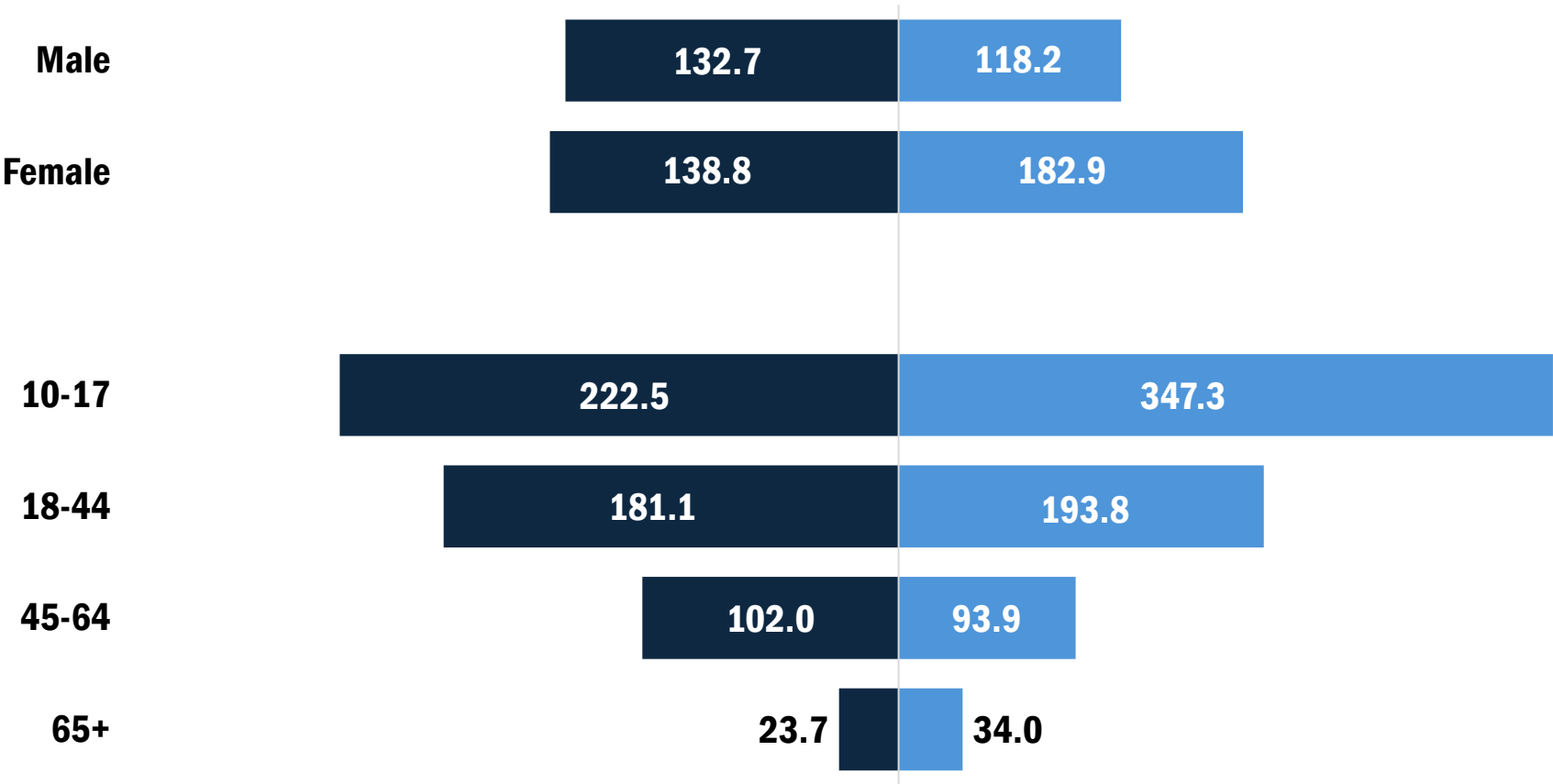


NC DEPARTMENT OF  
HEALTH AND  
HUMAN SERVICES  
Division of Public Health



# From 2019-2023\*, American Indian residents aged 10-17 experienced the highest rates of self-inflicted ED visits

Self-Inflicted ED Visits Rates (per 100,000) among American Indian Residents, 2019-2023\*



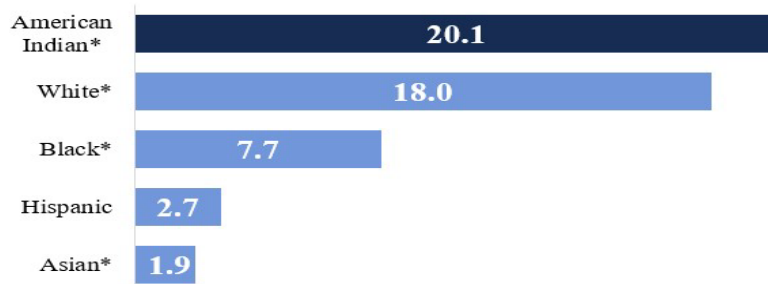
\*2023 data are provisional and subject to change  
Limited to NC residents, suicides limited to ages 10 and older.  
Source: NCDETECT, 2019-2023  
Analysis by Injury Epidemiology, Surveillance and Informatics (ESI) Unit

■ Total NC Population ■ American Indian

## Sidebar: Community-driven Approaches to Preventing Overdoses Among American Indians

Mary E. Cox, Margaret A. Smith, Amy R. Patel, Scott Proescholdbell and Ronny A. Bell  
North Carolina Medical Journal November 2021, 82 (6) 409-411; DOI: <https://doi.org/10.18043/ncmj.82.6.409>

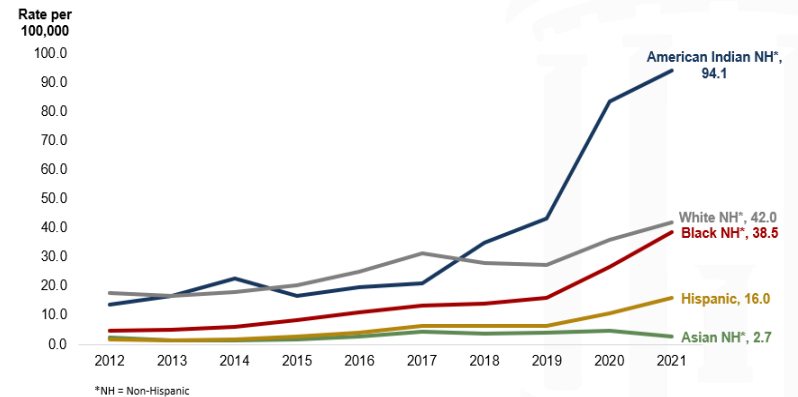
### Overdose Death Rates 2000-2020 Per 100,000 North Carolina Residents



\*Non-Hispanic

### Equity and Lived Experience:

Overdose rates are increasing in historically marginalized populations, these were exacerbated by the COVID-10 pandemic

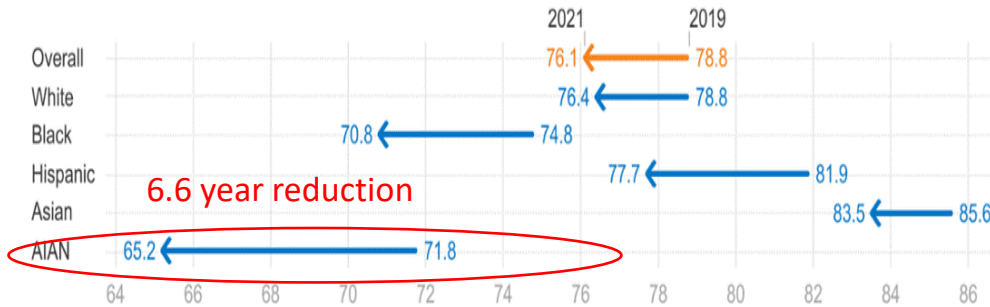


\*NH = Non-Hispanic

Technical Notes: Rates are per 100,000 NC residents; All intent medication and drug overdose: X40-X44, X60-X64, Y10-Y14, X85  
Source: Deaths-NC State Center for Health Statistics, Vital Statistics, 2012-2021; Population-NCHS, 2012-2021  
Analysis by Author: Policy, Information and Practice Research Unit



# Life Expectancy in Years by Race/Ethnicity, 2019-2021



**KFF**

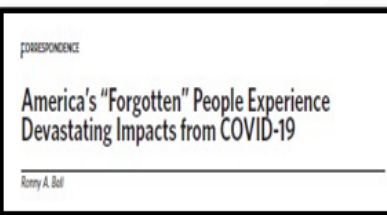
NOTE: Estimates based on provisional data for 2021 and final data for 2019 life expectancy at birth. Persons of Hispanic origin may be of any race but are categorized as Hispanic for this analysis; other groups are non-Hispanic. SOURCE: Arias E, Tejada-Vera B, Kochanek KD, Ahmad FB. Provisional life expectancy estimates for 2021. Vital Statistics Rapid Release; no 23. Hyattsville, MD: National Center for Health Statistics. August 2022. DOI: <https://dx.doi.org/10.15620/cdc:118999>.

[Kaiser Family Foundation COVID Disparities](#)

## COVID-19 Cases, Hospitalizations, and Deaths, by Race/Ethnicity

Rate ratios compared to White, Non-Hispanic persons	American Indian or Alaska Native, Non-Hispanic persons	Asian, Non-Hispanic persons	Black or African American, Non-Hispanic persons	Hispanic or Latino persons
Cases <sup>1</sup>	1.8x	0.6x	1.4x	1.7x
Hospitalization <sup>2</sup>	4.0x	1.2x	3.7x	4.1x
Death <sup>3</sup>	2.6x	1.1x	2.8x	2.8x

Race and ethnicity are risk markers for other underlying conditions that affect health, including socioeconomic status, access to health care, and exposure to the virus related to occupation, e.g., among frontline, essential, and critical infrastructure workers.



**NCMJ**  
NORTH CAROLINA MEDICAL JOURNAL  
a journal of health policy analysis and debate

<https://www.ncmedicaljournal.com/content/83/6/467>

NATIONAL

## The U.S. is reckoning with its troubled past of Indian boarding schools

June 23, 2022 · 9:41 AM ET

AUSTIN COPE



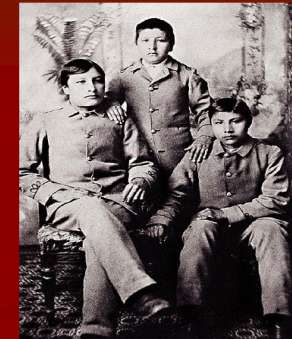
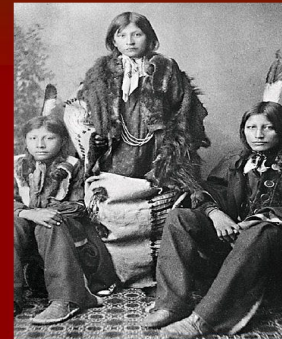
Interior Secretary Deb Haaland testifies before the Senate Committee on Indian Affairs on Wednesday in Washington, D.C.  
U.S. Senate Committee on Indian Affairs/Screenshot by NPR

Historical trauma is entirely different than consciously holding onto the past when it resides in your ancestral memory and DNA. It results in numerous defense mechanisms, developmental malfunctions, and behavioral issues. This is scientific and is supported in studies.

~Tony Ten Fingers/Wanbli Nata'u, Oglala Lakota



### "Kill the Indian, Save the Man"

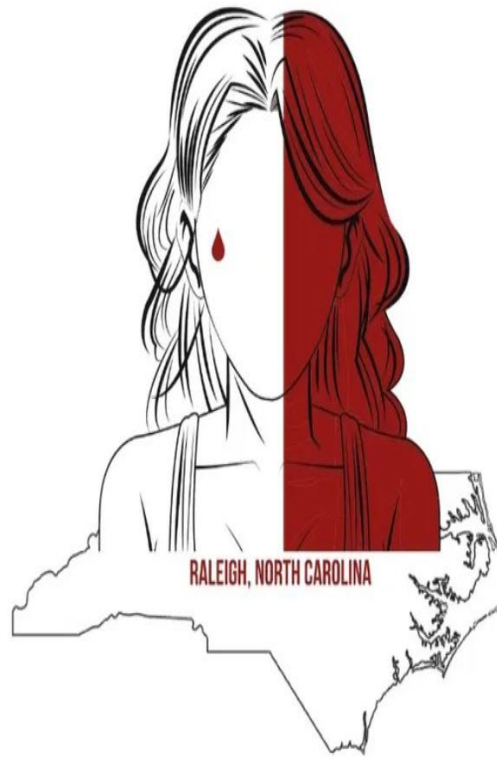


(910) 722-9459

## Missing Murdered Indigenous Coalition of NC

Protecting our people

SIGN UP



# #MMIW

**National Day of Awareness  
for Missing and Murdered  
Indigenous Women  
May 5th  
Actions Calling for Justice!**

<https://mmiwncc.com/>



**SOUTHEASTERN  
AMERICAN INDIAN  
CANCER HEALTH EQUITY  
PARTNERSHIP  
(SAICEP)**

A COLLABORATION BETWEEN



**NORTH CAROLINA**  
*American Indian Health Board*



North Carolina  
Commission of  
Indian Affairs



**UNC**  
AMERICAN INDIAN  
CENTER



**BlueCross BlueShield  
of North Carolina**

**HealthyBlue**



**HEALTHY NATIVE  
NORTH CAROLINIANS**



*The* CENTER *for* NATIVE HEALTH



# TRIBAL LIAISONS



Teryn Brewington (Sappony)  
Tribal Liaison, Healthy Blue



Phyl' Locklear (Lumbee)  
Tribal Liaison, WellCare of North Carolina



John Lowery (Lumbee)  
Tribal Liaison, Carolina Complete Health



Paige Hales,  
Tribal Liaison, United Healthcare



Chyder Vang  
Tribal Liaison  
AmeriHealth Caritas North Carolina





NCDHHS

Fireside Chat & Tele-town Hall

# NCMEDICAID FOR MORE PEOPLE:

Supporting the Health of American  
Indian Communities

Thurs., Aug. 1 | 6 to 7 p.m. ET

**Submit questions live:**



(855) 756-7520 Ext. 109745#

ASL Interpretation and Communication Access

Real-Time Translation (CART) provided.



# Save the Date

## 2025 TRIBAL HEALTH SUMMIT

Friday, July 18th, 2025  
Campbell University

HOSTED BY





## American Indian Health in North Carolina



### Also in this issue

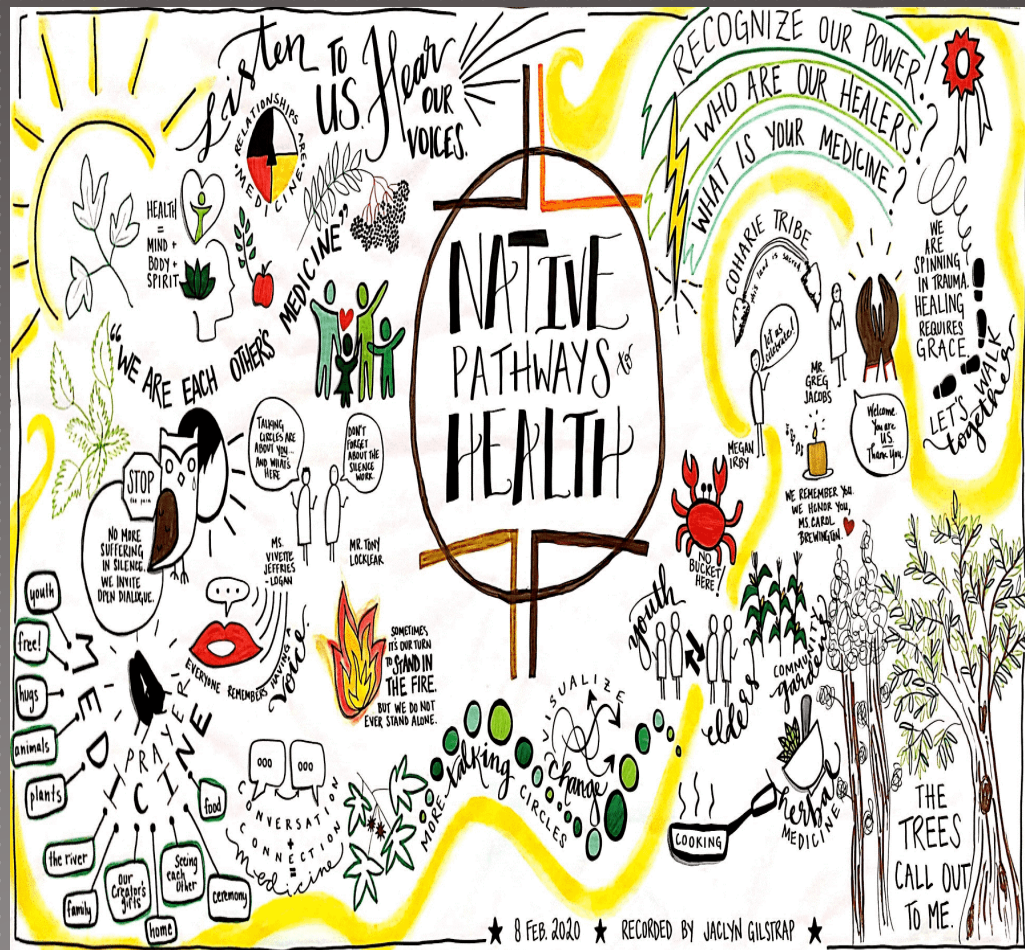
Using a Community Engagement Approach to Enhance Contraception Awareness in Rural Western North Carolina

Characteristics of an Outbreak of E-cigarette, or Vaping, Product Use-Associated Lung Injury—North Carolina, 2019

Policy Review: American Indian Health in North Carolina

Tar Heel Footprints in Health Care: Dr. Jim Jones, The "Godfather of Family Medicine" in North Carolina

Published by the North Carolina Institute of Medicine and The Duke Endowment



★ 8 FEB. 2020 ★ RECORDED BY JACLYN GILSTRAP ★

NCMJ Special Issue November 2021

Native Pathways to Health

# MEETING THE HEALTH AND HEALTH CARE NEEDS OF NORTH CAROLINA'S INDIGENOUS COMMUNITIES

- ▶ Accurate data collection
  - ▶ Racial misclassification
- ▶ Additional health outcomes data
  - ▶ Mental health/historical trauma
  - ▶ Oral health
  - ▶ Preventive health
- ▶ Evidence-based and culturally respectable health programs
- ▶ Training the next generation of Native health care providers





# Traditional Medicine in a Native Community from a Clinical Perspective



Joseph T. Bell, MD (Lumbee)  
Medical Director, Children's Health Pembroke  
[jbell22@nc.rr.com](mailto:jbell22@nc.rr.com)













Our Lumbee Doctors Fighting the Good Fight on the  
Frontlines Against COVID-19. They Need Your Help!  
COVID-19 Vaccinations are now available  
to everyone ages 12 and older.

**THIS  
SHOT**  
IS YOUR SHIELD

Lumbee Tribe of North Carolina | [www.lumbeetribe.com](http://www.lumbeetribe.com) | 910.521.7861

# Clinical Scenarios

- 54 yo man asks for a medicine man to meet him during his hospital stay for pneumonia
- Mother of a 10 yo boy is diagnosed with ADHD and seeks an herbal remedy for her son instead of Ritalin
- Parents ask you to be involved in a smudging ceremony since you are taking care of their 1 yo son
- A 40 yo diabetic man has stopped his insulin and is now controlling his blood sugar with peach tree leaf tea
- A 5 yo moderate persistent asthmatic is doing better using traditional Spanish Moss than your prescribed regimen of Albuterol and steroids
- A college-educated man recently diagnosed with Hodgkin's Lymphoma ask your advice on using traditional medicine instead of chemotherapy prescribed at Duke

















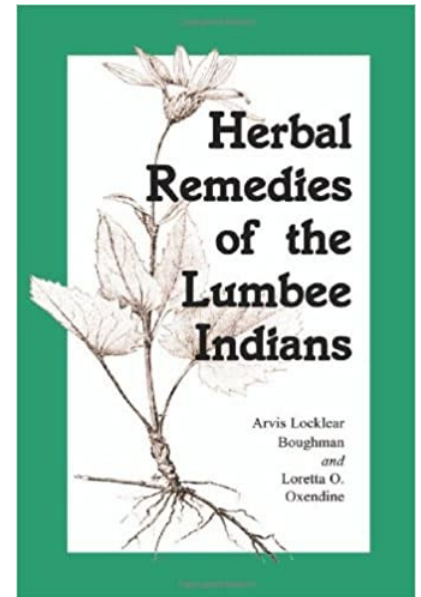






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<https://www.amazon.com/Herbal-Remedies-Indians-Locklear-Boughman/dp/0786413328>

