

Institute for Research on Poverty (IRP) Webinar 12.03.25

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#### Funding Acknowledgment



Robert Wood Johnson

Foundation

**Policies for Action** 

Policy and Law Research to Build a Culture of Health

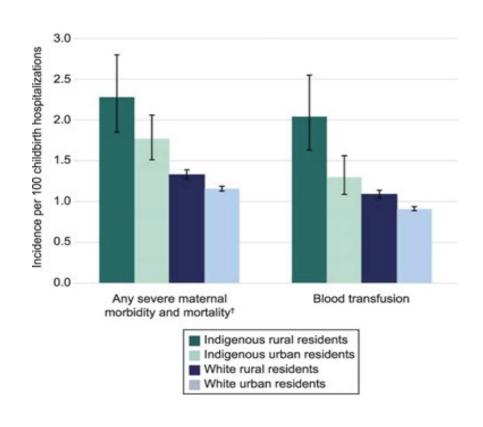
Support for this research was provided by the Robert Wood Johnson Foundation's Policies for Action (P4A) program.

The information, conclusions, and opinions expressed in this paper are those of the authors and no endorsement by the funder is intended or should be inferred.

## 5.2 million people identify as Indigenous in the US

- 40% live in rural areas (vs. <20% in other groups)
- 2/3 live outside of reservations

 Health inequities impact AI/AN people at disproportionate levels

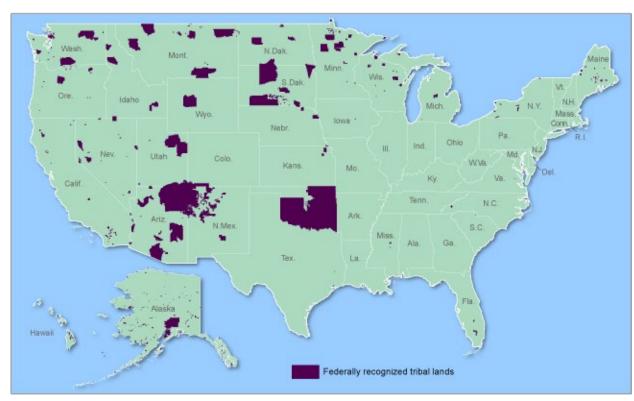


Kozhimannil KB, Interrante JD, Tofte AN, Admon LK. Severe Maternal Morbidity and Mortality Among Indigenous Women in the United States. Obstet Gynecol. 2020 Feb;135(2):294-300.

#### Currently 574 federally recognized tribes

- Federal recognition
  - Sovereignty
  - Funding
  - Services
  - Protections

>50 tribes not federally recognized

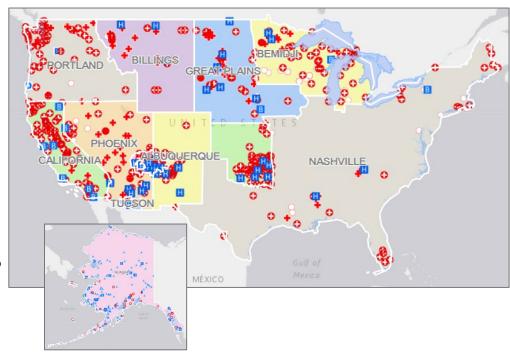


Source: GAO, based on U.S. Census Bureau data and the Federal Communications Commission's definition of tribal lands. | www.gao.gov

# The Indian Health Service (IHS)

PROWNER HEALTH CONTROL

- Established in 1955
- Enrollment qualifications
- Funding deficits
- Urban Indian Health Programs
- Reproductive health coverage
- Lack of birthing services at most IHS facilities



## The role of insurance, perinatal care and screenings in maternal health outcomes

 Access to care is essential during pregnancy, childbirth, and postpartum.

 Insurance coverage can facilitate financial access to health care.

 Perinatal care and screenings facilitate detection and treatment of conditions.

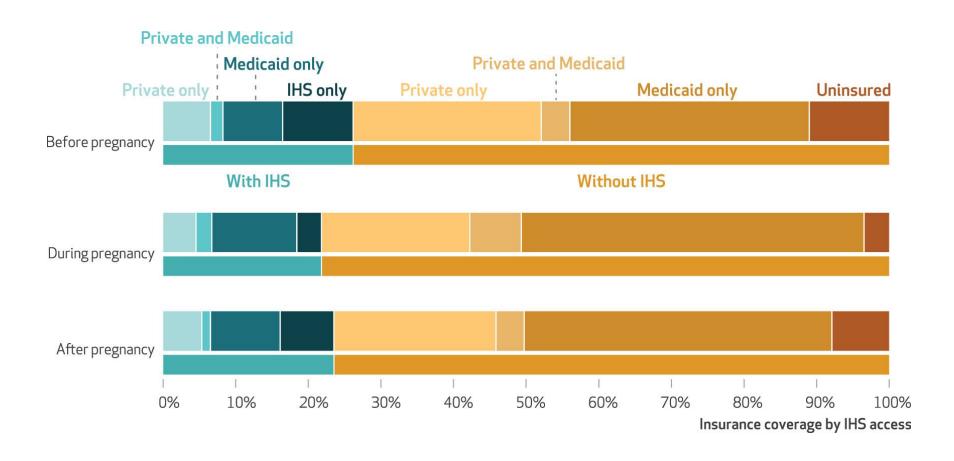


#### Data and methods

- Data
  - Pregnancy Risk Assessment Monitoring System (PRAMS), 2016-2020
- Outcomes
  - 8 categories of health insurance coverage and IHS access
    - Medicaid, private, Medicaid+private, uninsured (each +/- IHS)
  - Care use (attendance at any health care visit)
  - Receipt of high-quality care (≥75% of recommended screenings and care components)
- Timing
  - Preconception, pregnancy, childbirth, postpartum
- Analysis
  - Survey weighted multivariable logistic regression to calculate adjusted predicted percentages, percentage-point differences
  - Urban or rural residence based on county
  - With or without IHS access

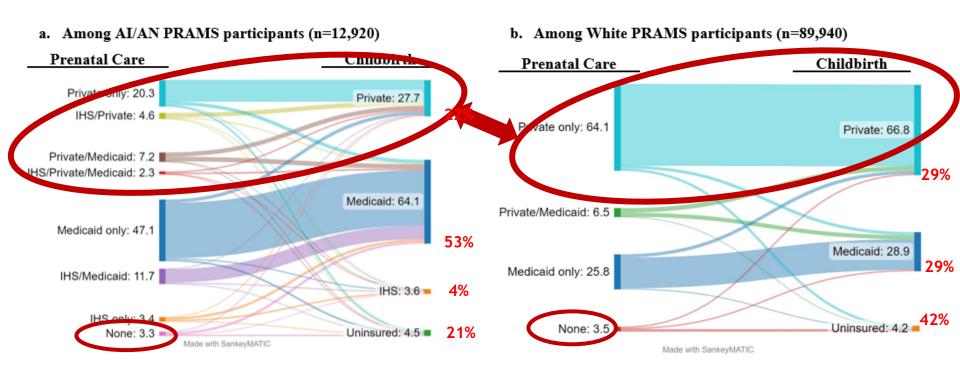


# Insurance coverage and IHS access among AI/AN PRAMS participants





## Coverage differences for prenatal vs. childbirth



#### Preconception care use and quality

Preconception care and quality measures	All	Private only	Private and Medicaid	Medicaid only	Uninsured
Care use <sup>a</sup> With IHS access <sup>a</sup>	61.5 62.3	69.9	64.2	64.8	55.3
Without IHS access <sup>a</sup>	61.2	69.5	68.8	61.7	39.4
IHS difference <sup>b</sup> Received ≥75% of recommended components	1.0	0.4	<b>-4.6</b>	3.1	15.9****
(if had a visit) <sup>a,c</sup>	19.4				
With IHS access <sup>a</sup> Without IHS access <sup>a</sup>	21.2 18.7	17.3 18.6	28.0 33.2	23.8 18.6	21.2 11.0
IHS difference <sup>b</sup>	2.5	-1.2	-5.1	5.2	10.2****

#### Prenatal care use and quality

Health	insurance	status	during	pregnancy
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Prenatal care and quality measures	All	Private only	Private and Medicaid	Medicaid only	Uninsured
Care use <sup>a</sup> With IHS access <sup>a</sup> Without IHS access <sup>a</sup> IHS difference <sup>b</sup>	98.6 98.7 98.6 0.1	99.8 99.5 0.3	98.2 98.4 -0.2	99.1 99.0 0.2	97.4 90.6 6.8**
At least adequate prenatal care <sup>a,c</sup> With IHS access <sup>a</sup> Without IHS access <sup>a</sup> IHS difference <sup>b</sup>	63.2 61.7 63.6 –2.0	68.7 67.3 1.4	58.0 71.1 –13.1***	61.9 61.9 0.0	54.7 53.4 1.3
Care started in first trimester (if had a visit) <sup>a</sup> With IHS access <sup>a</sup> Without IHS access <sup>a</sup> IHS difference <sup>b</sup>	87.8 87.2 87.9 –0.7	94.5 92.7 1.8	90.7 90.0 0.7	85.7 86.8 –1.1	83.8 83.2 0.6
Received ≥75% of recommended components  (if had a visit) <sup>a,d</sup> With IHS access <sup>a</sup> Without IHS access <sup>a</sup> IHS difference <sup>b</sup>	76.0 82.7 74.2 8.6****	86.5 72.5 14.1****	83.9 76.5 7.4	81.5 75.0 6.4****	81.3 67.2 14.3**

#### Postpartum care use and quality

#### Health insurance status after childbirth (at time of survey)

Postpartum care and quality measures	All	Private only	Private and Medicaid	Medicaid only	Uninsured
Care use <sup>a</sup> With IHS access <sup>a</sup> Without IHS access <sup>a</sup> IHS difference <sup>b</sup>	81.8 81.2 81.9 -0.7	91.2 87.4 3.8	86.1 89.2 –3.2	76.5 79.7 –3.2	81.6 79.1 2.5
Received ≥75% of recommended components  (if had a visit) <sup>a,c</sup> With IHS access <sup>a</sup> Without IHS access <sup>a</sup> IHS difference <sup>b</sup>	44.1 50.5 42.1 8.4****	47.7 36.3 11.4***	45.5 41.3 4.2	51.9 45.4 6.4**	52.1 43.2 9.0

#### Limitations and challenges

- Unable to distinguish tribal affiliation or enrollment
  - AI/AN is both a racial-ethnic identity and a political term with legal implications for tribal enrollment
  - Not all individuals who self-identify as Al/AN qualify for enrollment
  - Variation across place and tribal nations in eligibility requirements
- Unable to determine care at federally-operated IHS facilities, tribally-operated facilities, or Urban Indian Organizations
- Potential measurement error of insurance and IHS
  - IHS listed as insurance in PRAMS
  - Insurance for childbirth only primary payer (birth certificate record)
- Not able to examine out-of-pocket costs, deductibles, or limitations and choices in picking specific providers or types of services

#### Findings summary and implications

- AI/AN people have limited access to IHS care around childbirth.
- Over half of Al/AN people did not receive high-quality perinatal care, especially before and after pregnancy.
  - However, those with IHS access had greater care use and highquality care than those without.

Role for increased funding for IHS and for perinatal services

offered by IHS

 Our findings highlight the critical role that Medicaid coverage plays in reducing maternal and child health inequities.

 Suggest further expansion of Medicaid coverage may play an important role in improving maternal and infant health outcomes



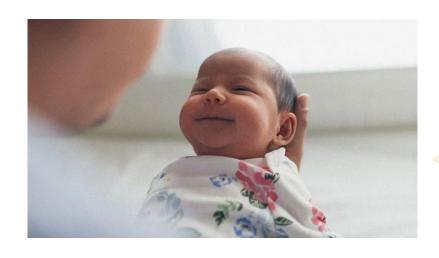


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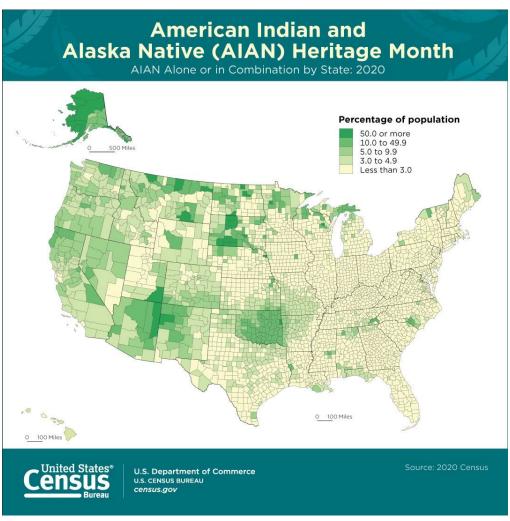
#### **Additional Slides**

5.2 million people identify as Indigenous

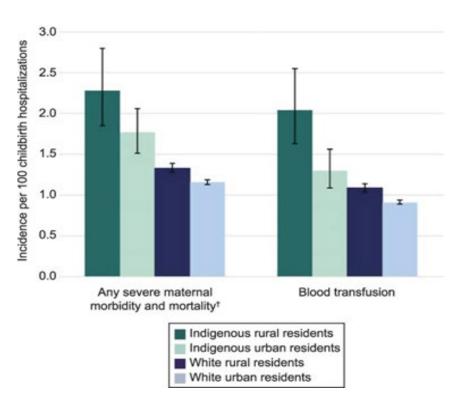
in the US

 40% live in rural areas (vs. <20% in other groups)

2/3 live outside of reservations



#### The intersection of race and geography





Kozhimannil KB, Interrante JD, Tofte AN, Admon LK. Severe Maternal Morbidity and Mortality Among Indigenous Women in the United States. Obstet Gynecol. 2020 Feb;135(2):294-300.



# Study population

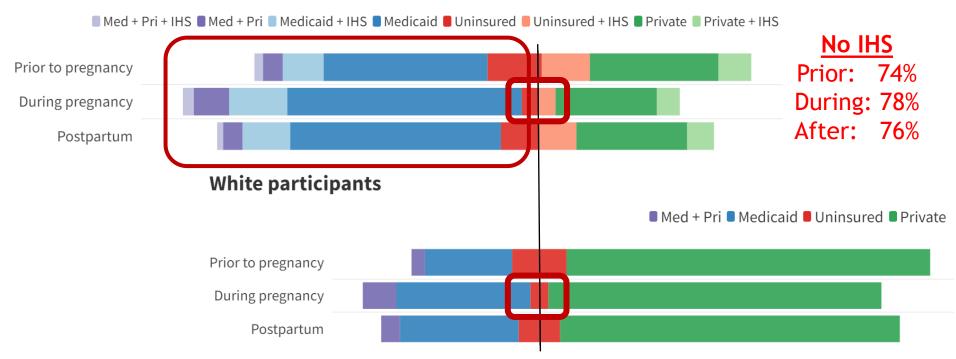
	Weighted pe		
	AI/AN	White	
Characteristic	(n=12,920)	(n=89,940)	P-value
Residence			< 0.001
Rural	40.7	19.9	
Urban	59.3	80.1	
State ACA Medicaid expansion			
status as of mid-2020			< 0.001
Expanded	63.4	70.8	
Not expanded	36.6	29.2	
Region			< 0.001
Northeast	8.7	24.8	
Midwest	25.5	29.1	
South	26.1	32.1	
West	39.7	14.0	
Age			< 0.001
≤24 y	35.7	19.0	
25-34 y	53.2	61.9	
≥35 y	11.2	19.1	
Education			< 0.001
Less than high school	18.3	6.4	
High school	33.1	20.5	
More than high school	48.2	72.6	
Married	37.1	72.8	< 0.001
Multiparous	64.9	59.5	< 0.001
Unintended pregnancy	47.2	66.4	< 0.001
Any health care visit in year			
prior to pregnancy	61.5	77.4	< 0.001
Pre-pregnancy conditions			
Physical abuse	8.9	3.2	< 0.001
Depression	22.8	16.6	< 0.001
Diabetes	4.0	2.9	0.002
High blood pressure or			
hypertension	6.6	4.7	< 0.001
Obesity	39.3	27.8	< 0.001
Smoking	33.2	19.5	< 0.001

#### Coverage for AI/AN individuals

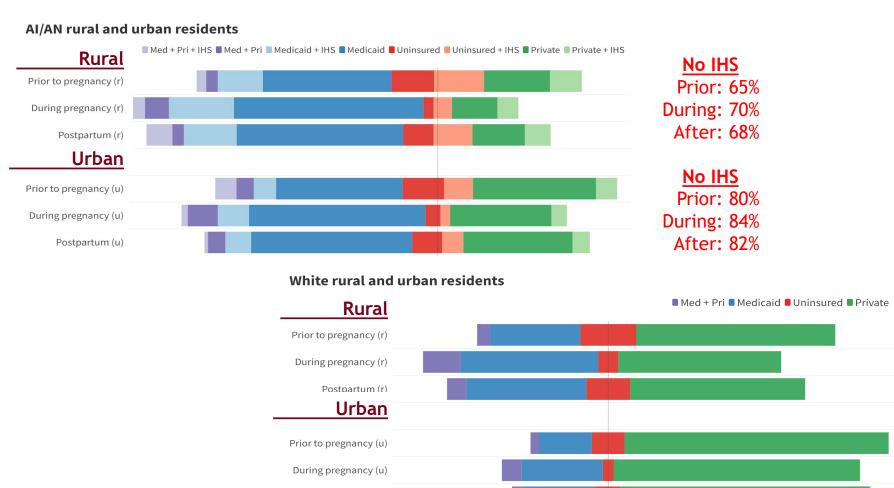
	Weighted percent (%)					
T. OTTIC	Month prior to	During _	Postpartum			
Insurance/IHS status	pregnancy	pregnancy*	(at time of survey)			
Mutually exclusive:						
With IHS:						
Private only	6.6	4.6	5.4			
Private and Medicaid	1.7	2.2	1.2			
Medicaid only	8.2	11.7	9.6			
Uninsured	9.7	3.4	7.4			
Without IHS:						
Private only	25.9	20.4	22.3			
Private and Medicaid	3.9	7.1	3.9			
Medicaid only	33.0	47.2	42.4			
Uninsured	10.9	3.4	7.8			
Any:						
Private	38.1	34.3	32.9			
Medicaid	46.9	68.2	57.1			
IHS	26.3	21.9	23.6			
Absence of:						
Private or Medicaid	20.6	6.8	15.2			
IHS	73.7	78.1	76.4			

## Insurance and health care coverage status during the perinatal period

#### AI/AN participants

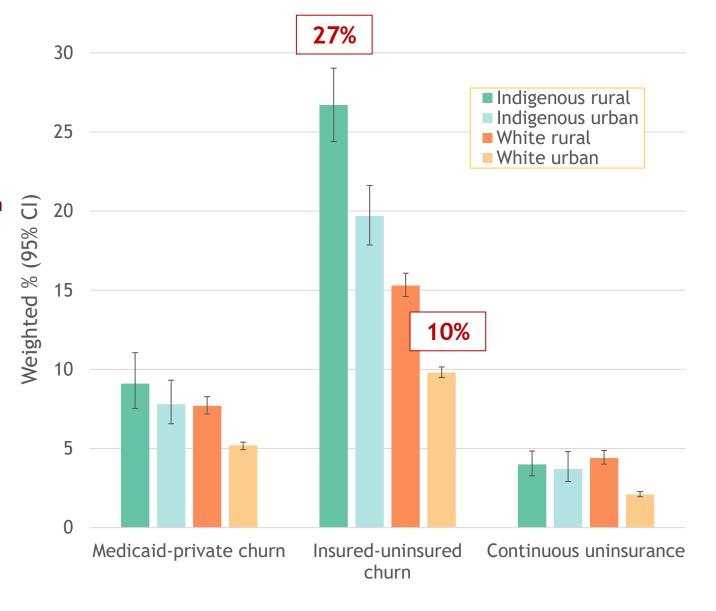


## Insurance and health care coverage status during the perinatal period - rural/urban differences

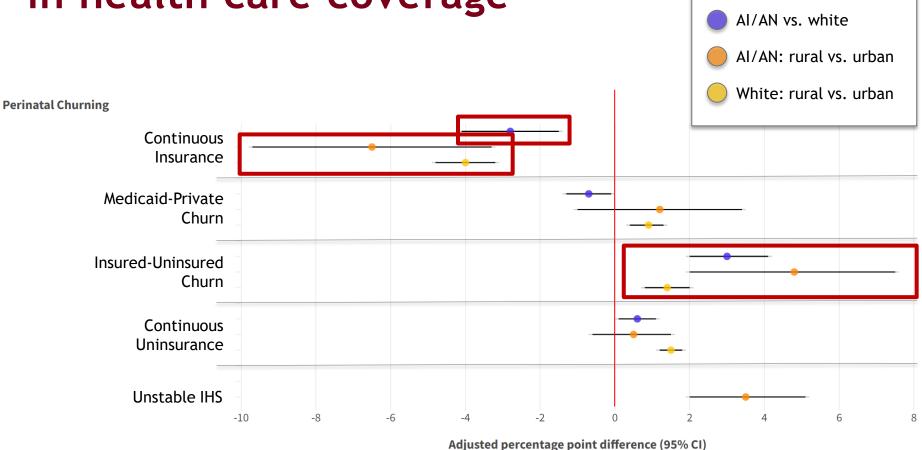


Postpartum (u)

# Perinatal 30 churn in health insurance $\widehat{z}$ 20



Adjusted differences in perinatal churn in health care coverage



## Adjusted predicted probabilities of perinatal churn

		Overall		AI/AN				White	
Insurance/IHS status	AI/AN (n=12,920)	White (n=89,940)	Adjusted difference (95% CI)*	Rural (n=6,580)	Urban (n=6,340)	Adjusted difference (95% CI)*	Rural (n=22,043)	Urban (n=67,897)	Adjusted difference (95% CI)*
Continuous insurance	77.8	80.5	-2.7 (-4.1,-1.3)***	61.5	67.9	-6.4 (-9.7,-3.1)***	77.8	81.8	-4.0 (-4.9,-3.1)***
Medicaid-private churn	5.1	5.8	-0.7 (-1.4,0.0)	9.1	7.9	1.2 (-1.0,3.5)	6.3	5.5	0.9 (0.3,1.4)**
Insured-uninsured churn	14.1	11.1	3.0 (1.9,4.1)***	25.2	20.5	4.7 (1.9,7.6)**	12.0	10.6	1.4 (0.7,2.1)***
Continuous uninsurance	3.2	2.6	0.6 (-0.0,1.2)	4.1	3.7	0.5 (-0.7,1.6)	3.7	2.2	1.5 (1.1,1.9)***
Continuous IHS	12.8		_	24.3	13.8	10.5 (8.5,12.5)***		_	
Continuous no IHS	80.2		_	63.0	77.0	-14.0 (-16.7,-11.4)***		_	
Unstable IHS coverage	6.9		_	12.8	9.2	3.5 (1.9,5.1)***		_	

<sup>\*</sup> p<0.05, \*\* p<0.01, \*\*\* p<0.001.

## Weighted characteristics of PRAMS participants by race and ethnicity

Characteristic	All PRAMS participants (n=196,894)	Non-Hispanic, non-Al/AN white (n=89,940)	Al/AN (n= 12,920)	P-value
Care utilization				
Preconception visit	69.8	77.4	61.5	<0.001
Prenatal care visit	99.5	99.7	98.6	<0.001
Prenatal care started in the first trimester	92.6	95.1	87.8	<0.001
Adequate/plus prenatal care (APNCU)	74.9	79.5	63.2	<0.001
Postpartum care visit	89.8	92.3	81.8	<0.001
Received ≥75% of recommended components during:				
Preconception visits	15.8	11.8	19.4	<0.001
Prenatal visits	65.8	62.6	76.0	<0.001
Postpartum visits	35.5	29.8	44.1	<0.001

#### Care quality by measure and IHS status among AI/AN people

	Predicted Per		
	With IHS access	Without IHS access	IHS Difference
Preconception visits (≥75% of all)	21.2 (18.9,23.6)	18.7 (16.2,21.2)	2.5 (-0.8,5.8)
Folic acid consumption	25.5 (23.1,27.9)	27.7 (24.8,30.5)	-2.1 (-5.8,1.5)
Maintaining a healthy weight		40.9 (37.8,43.9)	-3.8 (-7.8,0.3)
• , •	37.1 (34.3,39.9)	, , ,	
Controlling medical conditions	18.0 (15.9,20.0)	19.8 (17.1,22.5)	-1.8 (-5.0,1.3)
Desire to have children	37.6 (34.8,40.3)	36.4 (33.4,39.4)	1.2 (-2.8,5.2)
Contraception and pregnancy	27 6 (24 9 40 2)	26 4 (22 4 20 4)	12/2052
prevention	37.6 (34.8,40.3)	36.4 (33.4,39.4)	1.2 (-2.8,5.2)
Health improvement strategies	31.9 (29.0,34.7)	29.2 (26.3,32.0)	2.7 (-1.3,6.6)
Sexually transmitted infections	38.2 (35.3,41.1)	36.7 (33.7,39.7)	1.5 (-2.7,5.6)
Smoking	84.8 (82.2,87.4)	82.8 (80.5,85.0)	2.0 (-1.4,5.4)
Emotional and physical abuse	73.9 (70.9,76.9)	65.6 (62.7,68.6)	8.3 (4.1,12.4)***
Depression	74.9 (72.2,77.7)	68.8 (66.0,71.6)	6.2 (2.3,10.0)**
Work environment	64.7 (61.9,67.4)	60.1 (57.0,63.2)	4.6 (0.5,8.7)*
HIV testing	38.0 (35.1,40.9)	38.4 (35.3,41.6)	-0.4 (-4.7,3.8)
Prenatal visits (≥75% of all)	82.7 (80.8,84.6)	74.2 (72.1,76.2)	8.6 (5.9,11.3)***
Healthy weight gain during			
pregnancy	59.6 (57.1,62.0)	56.6 (54.3,58.9)	3.0 (-0.4,6.3)
Medication use	92.9 (91.6,94.2)	92.1 (90.9,93.2)	0.8 (-0.9,2.5)
Smoking	96.1 (95.0,97.2)	94.5 (93.4,95.6)	1.6 (0.1,3.1)*
Alcohol consumption	95.3 (94.1,96.4)	93.5 (92.3,94.7)	1.8 (0.2,3.4)*
Emotional and physical			
abuse	90.2 (88.8,91.7)	79.7 (77.7,81.7)	10.6 (8.1,13.0)***
Depression	91.2 (89.7,92.7)	83.8 (82.0,85.7)	7.3 (5.0,9.7)***
Drug use	91.0 (89.5,92.4)	85.6 (83.9,87.3)	5.4 (3.2,7.6)***
HIV testing	64.4 (62.1,66.7)	63.3 (61.1,65.6)	1.1 (-2.1,4.2)
Breastfeeding planning	93.6 (92.2,95.0)	91.7 (90.3,93.1)	1.9 (-0.1,3.9)
Contraception planning	89.7 (88.2,91.3)	83.7 (81.9,85.6)	6.0 (3.6,8.4)***
Influenza vaccination	88.9 (87.2,90.5)	85.5 (83.6,87.3)	3.4 (1.0,5.8)**
Postpartum visits (≥75% of all)	50.5 (47.8,53.2)	42.1 (39.6,44.7)	8.4 (4.7,12.1)***
Folic acid consumption	55.6 (53.0,58.2)	51.9 (49.2,54.5)	3.8 (0.1,7.4)*
Healthy eating and exercise	(22.2)	( ) , , , , , , , , , , , , , , , , , ,	
after pregnancy	64.0 (61.5,66.5)	61.0 (58.5,63.6)	3.0 (-0.5,6.5)
Birth spacing	58.2 (55.7,60.7)	52.5 (49.9,55.1)	5.7 (2.1,9.2)**
Contraception	91.6 (90.2,92.9)	90.3 (88.7,91.8)	1.3 (-0.7,3.2)
Smoking	78.4 (76.3,80.5)	69.6 (67.1,72.0)	8.8 (5.6,12.0)***
Emotional and physical abuse	78.8 (76.6,81.0)	68.1 (65.7,70.6)	10.7 (7.4,13.9)***
Depression	90.7 (89.0,92.4)	87.6 (85.7,89.5)	3.1 (0.5,5.6)*



## Recommendations to Improve Care for Native Americans



Laurelle Myhra, PhD, LMFT
Red Lake Nation
Mino Bimaadiziwin Wellness Clinic

#### Overview

Share findings from our recently published study (Lewis et al., 2025) on Native American suggestions for improving health care encounters

What does this look like in practice? Examples from Mino Bimaadiziwin (Ojibwe word for "good life") Wellness Clinic:

- Development of mental health workforce
- Use of Community Health Workers for mental health education

"Understand the Way We Walk Our Life": Indigenous Patients' Experiences and Recommendations for Healthcare in the United States (Lewis et al., 2025)

- -20 Native American (15 Anishinaabe and 5 Lakota) participants
- -Focus groups at Minneapolis based Native American-specific clinic
- -Themes included experiences of both inadequate and successful health care encounters, and recommendations for improving care

\*Structural barriers and recommendations for improvement of health systems is also addressed in the article however not in this presentation

## Ineffective health encounters

Not trusting/believing patients Poor communication skills Lack of collaboration in treatment plans Lack of a thorough assessment Ineffective health Discrimination encounters encounters Racism Stereotyping Lack of knowledge about Indigenous people

Improvements needed for healthcare

Understanding that health is contextual Knowledge of the history of Native people Listen to/learn from Native people Utilize the holistic theory of care Facilitate patient agency Awareness of racism Some understanding of Native language Knowledge of the culture and community being served

Figures 1 and 3 from Lewis et al., 2025

# Recommendations for effective health encounters

Effective health encounters

Culturally appropriate assessment Free of stigma Indigenous medicine Integrated care Interpersonal relationship Native healthcare provider Patient agency Praise, positive reinforcement Providing/finding helpful resources Respect the trauma experienced Timely Ability to select the gender of the provider Continuity of care Good communication—follow ups, updates Correct clinical decisions Native-serving clinic Appropriate billing

Figure 2 from Lewis et al., 2025

What does this look like in practice?

## Behavioral health workforce efforts

#### Recruitment of Native American MH providers

- 90% NA providers (less than .5% of all therapists)
- All NA front line staff

#### Trainings/Consultation

- Ensuring access to ongoing education and mentorship helps with retention
- Training to increase understanding of clientele including development of Indigenous Health Toolkit (for more on IHT read Lewis et al., 2024)

## Community health workers

Community health workers alongside mental health professionals

- Trained with mental health providers and enhance multidisciplinary team
- Goals and plans for client education focused on mental health diagnosis and comorbidity
- All Native staff trained existing staff (i.e., housing case managers, intake coordinator, and care coordinators)
- Success with group model for peer support
- Revenue generation

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Thank you/Miigwech!



## Promoting Health through Indigenous Culture

Melissa Lewis, PhD
Associate Professor
University of Missouri School of Medicine
Jamie Smith, Analyst; Ivy Blackmore, Research Scientist

### IHT: Module 6 & 7



Module 6: Patient-Provider relationship



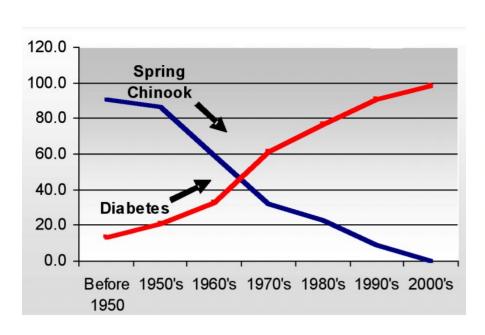
Module 7: Systems of Care

- Broaden your definition of health
  - And your SOAP assessments
- Show up at community events
  - •Beyond health fairs (pow wows, film, art, ceremonies if invited)
- ·Learn more about the history of your environment
  - •Who used to live there before colonization?
  - •What treaties govern the area?
- ·Learn more about culture in your area
  - •Environmental/Seasonal & traditional food related activities
  - Plant medicine
- Find elders & healers as mentors
  - •"Where are your elders?"
  - Connect to tribal colleges
- •Support those who **support preservation of natural & cultural resources** 
  - •Foods served at clinic functions?
    - •"Eating the Landscape"; storytelling web modules
  - •Reinforce Traditional Indian Medicine (TIM) concepts learned elsewhere
- Create cultural in-services
  - •How do you give input as to your needs?
- Consider resources outside the usual medical box
  - •Community member led, Interdisciplinary, Web based, etc.

-Terry Maresca

# WHAT IS IMPORTANT TO THIS COMMUNITY?

### **NORTHERN CALIFORNIA-COAST SALISH: SALMON**



#### 'Salmon Everywhere' One Year After Klamath Dam Removal

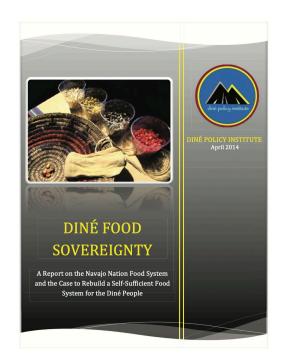
November 18, 2025



A little more than a year after the historic removal of four hydroelectric dams on the Klamath River, California Department of Fish and Wildlife (CDFW) scientists are seeing salmon reoccupying just about every corner of their historic habitat.

### Diné: Food Sovereignty

- "Traditional plant-based foods of Native Americans, with their rich source of natural phenolic antioxidants, can be incorporated in dietary intervention strategies to counter chronic oxidative stress and other metabolic dysfunctions commonly associated with T2D, CVDs, and GDM."
- "Previous and current in vitro studies with "three sisters crops" (native colored corn, squash, and bean) have found strong phenolic-linked antioxidant, antidiabetic, and antihypertensive properties of these traditional food plants."



**TABLE 1** Phenolic bioactive-linked antioxidant and antihyperglycemic properties of selected traditional food plants of Native Americans and comparisons with contemporary varieties

Food plant		Total soluble phenolic concentration (m
Traditional corn	Purple corn (41)	8.0
	Dark-red corn (38)	0.5
	Oaxacan green corn	1.2
Contemporary corn	Yellow corn	0.2-0.5
Traditional beans	Hidatsa red beans	1.4
	Hopi black bean	2.0
	Algonquin speckled bean	1.8
	Arikara yellow bean	1.6
	Andean legume (41)	4.0
	Jack bean	1.2
Cotemporary beans	Black bean	1.5
	Red kidney bean	1.8

### Cherokee: Language

### Memorial for Cherokeespeaking pandemic victims clears committee

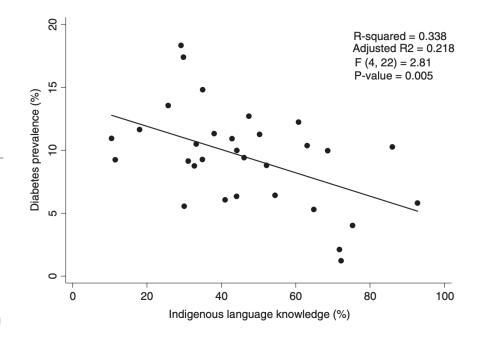
BY CHAD HUNTER Reporter Jun 26, 2021

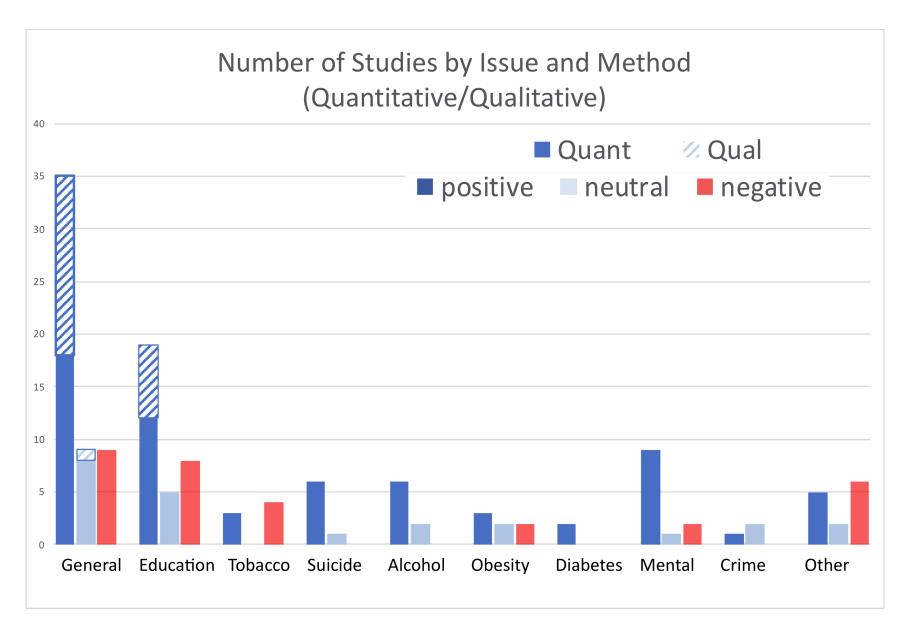


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TAHLEQUAH – Plans to create a memorial that honors Cherokee speakers lost to COVID-19 was supported by tribal councilors in committee June 24.

According to the resolution initiated by Tribal Council Speaker Joe Byrd, a memorial would be located at the future Durbin Feeling Language Center in Tahlequah.





### **Traditional & Cultural Activities**

- Native people that identify strongly and positively with their identity and take part in traditional cultural activities are more likely to...
  - ✓ have improved academic performance
  - ✓ positive mental health
    - youth
    - adults
  - ✓ reduced substance use
    - youth
    - adults
  - ✓ improved physical health
    - smoking, obesity, diabetes

### <u>Language</u>

Little Cherokee
 Seeds

# Cultural Domains of Research Programs

### **Community**

• Duyugvda igalenisodi

### **Ecology (TEK)**

- Camp T-CEK
- Little Cherokee Seeds

### Food

- Little Cherokee
   Seeds
- Camp T-CEK

### **History**

- Remember the Removal Program
- Duyugvda igalenisodi

### Cherokee Cultural Programs



	T	1		I
#	Name	Year	Cultural	Results
			Domain	
1.	Remember the	2017-	History	+ Cherokee identity, values,
	Removal	2018		connection
				+ Mental health
				+ Diet (Reduced sugary
				beverages)
2.	<u>Little Cherokee Seeds</u>	2022-	Language	+ Cherokee identity, values,
		Current		connection
				+ Mental health, Social support,
				Parenting confidence, Resilience,
				Life satisfaction
				+ Language
				+ Connection to nature
				+ Traditional foods knowledge
_				and use
3.	Traditional Cherokee	2022-	Ecology	+ Cherokee identity, values,
	Ecological Knowledge	Current		connection
	Camp			+ Mental health
				+ Ecological knowledge
				+ Connection to nature
4.	Duyugvda Igalenisodi	2022-	Community	+ Cherokee identity, values,
	(Starting again	2024		connection
	together the right			+ Mental health
	way)			+ Knowledge of traditional foods
				+ Physical activity

### Little Cherokee Seeds



- Began November 2022
- Mother-Baby language immersion program
- Recreating Cherokee elder's experiences as infants
- Focused on Cultural Activities, not 'curriculum'





















### Results: Mothers' Culture and Connection

		Baseline (Mean)	6 months (Mean)	1 Year (Mean)
1.	Cherokee Values	3.51	3.13	<mark>3.63</mark>
2.	Cultural Connectedness	4.10	4.02	<mark>4.36</mark>
3.	Cultural Efficacy	4.68	4.20	<mark>4.36</mark>
4.	Multigroup Ethnic Identity	4.31	4.29	4.47
5.	Environmental Identity	6.00	5.73	<mark>6.27</mark>
6.	Connectedness to nature	3.83	3.63	3.93
7.	Food Sovereignty	1.47	<mark>1.97</mark>	<mark>2.30</mark>
7a.	% pre-colonial Cherokee foods	19.5%	28.3%	28.3%

### Results: Mothers' Health

		Baseline (Mean)	6 months (Mean)	1 Year (Mean)
1.	Social Support	2.59	2.22	<mark>2.68</mark>
2.	Life Satisfaction	3.36	3.27	<mark>3.64</mark>
3.	Parenting Self-Agency	5.90	5.23	<mark>6.50</mark>
4.	Resilience	3.17	<mark>3.37</mark>	3.17
5.	Positive Mental Health	4.24	4.15	<mark>4.64</mark>

### Results: Mothers' Health Open-Ended Questions...

- "Emotionally it helps more than therapy could. Being around the language and the laughter is healing. The crafts we do, I use as coping mechanisms when I'm feeling down." M3, T4
- "I often struggle with depression. I have many blue days and days where I just don't want to get out of bed. Ok those days I fight the urge and tell myself that when I make it to the speakers everything will be okay. Our speakers and other moms heals me in ways they don't understand. very grateful" M3, T3
- "As a person who suffers from GAD, I haven't had the need to return to medication & that was a worry for me, especially with postpartum hormones." Mother 4, 1 year (T3)
- "I see and feel my ancestors in anything I do. I hear them when I'm having hard time, I often feel like I'm reconnecting with elders and speakers I've lost in the past. It's definitely made me more grounded and aware about what we do and how meaningful it actually gets. Very emotional." M3, T5

This program has changed the whole direction and lifestyle for my family in such a positive way, from speaking, eating habits & food choices, cultural activities & knowledge about food & medicine I can now pass down for generations, but it all goes back to our culture and that is where I find happiness within myself, I've really found myself here with LCS and my culture. I'm very thankful for that & I owe it all to you speakers & founders. Wado **–LCS Mother** 







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