



NIMHD Programs

August 17, 2023

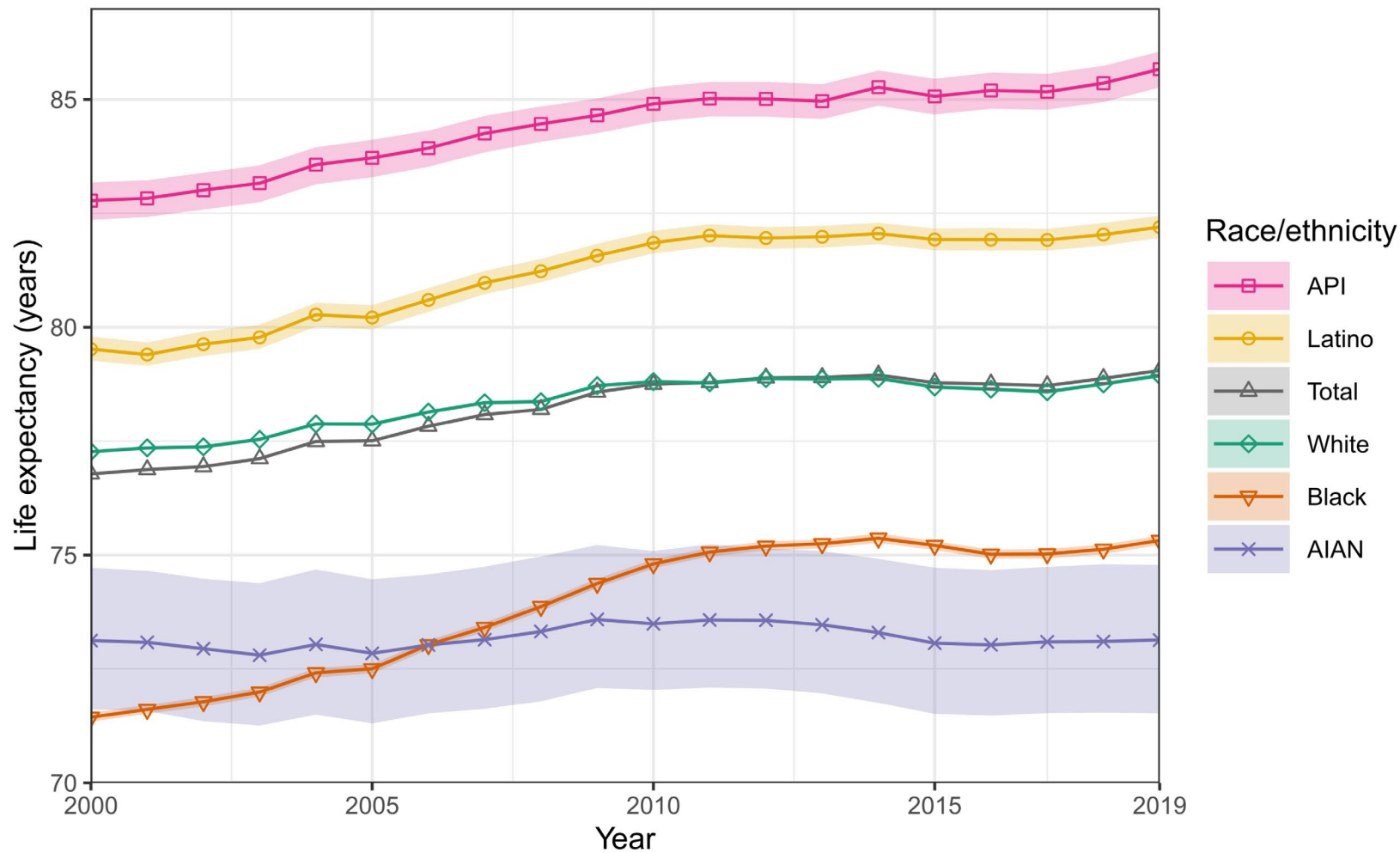
*2023 NIH Annual Tribal Advisory Committee
Tribal Health Research Office*

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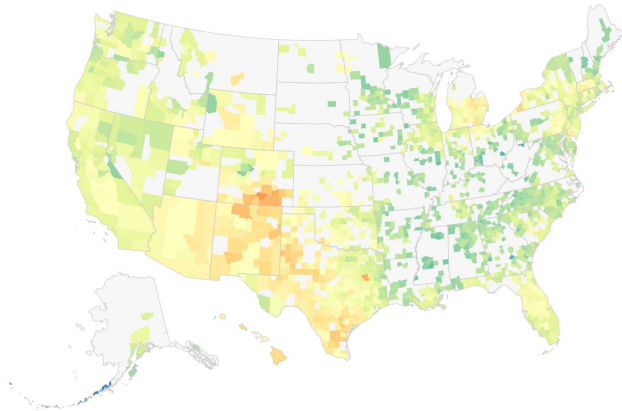
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and Health Disparities

National Life Expectancy by Race and Ethnicity 2000-2019

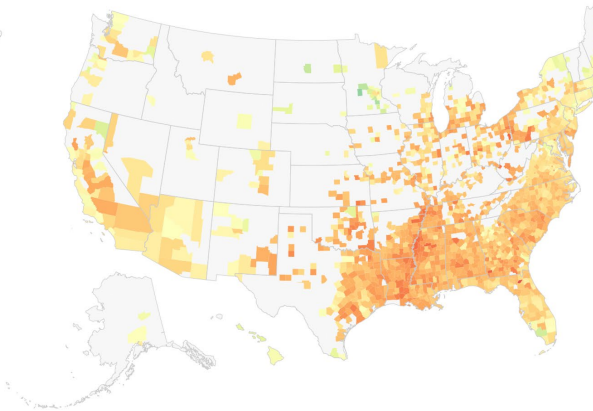


County Life Expectancy by Race and Ethnicity (2019)

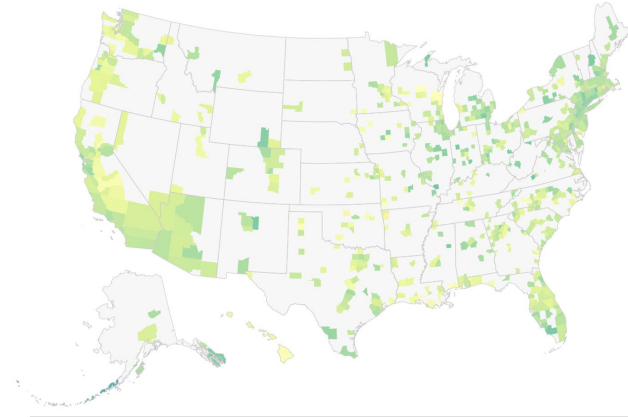
Latino



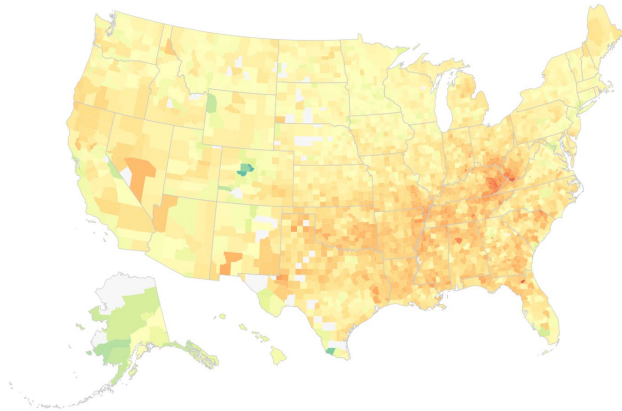
Black



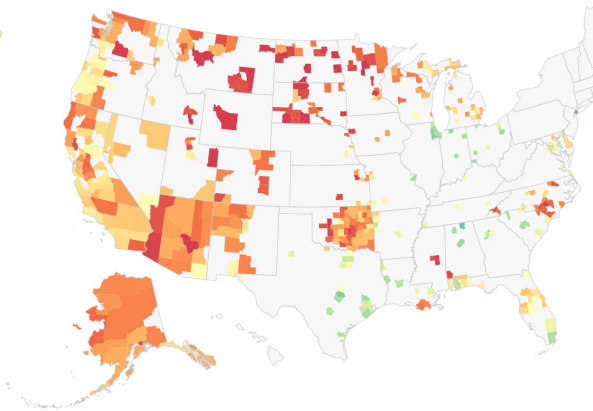
API



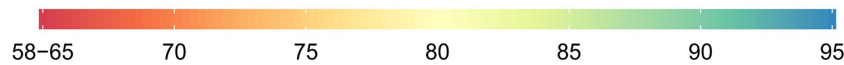
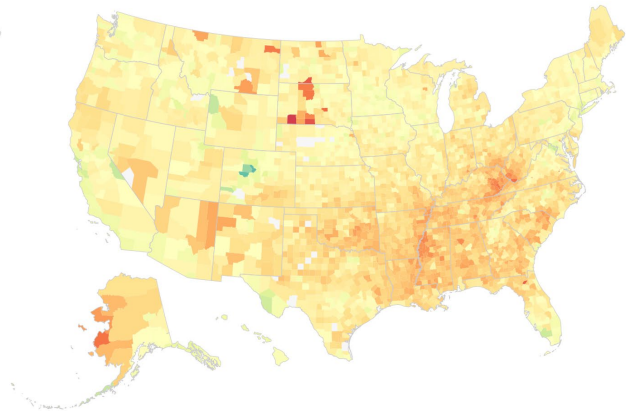
White



AIAN



Total



GBD US Health Disparities Collaborators, Lancet 2022; Jul 2;400 (10345):25-38



Economic Burden of Health Inequities by Race and Ethnicity in the U.S. in 2018 in Billions \$

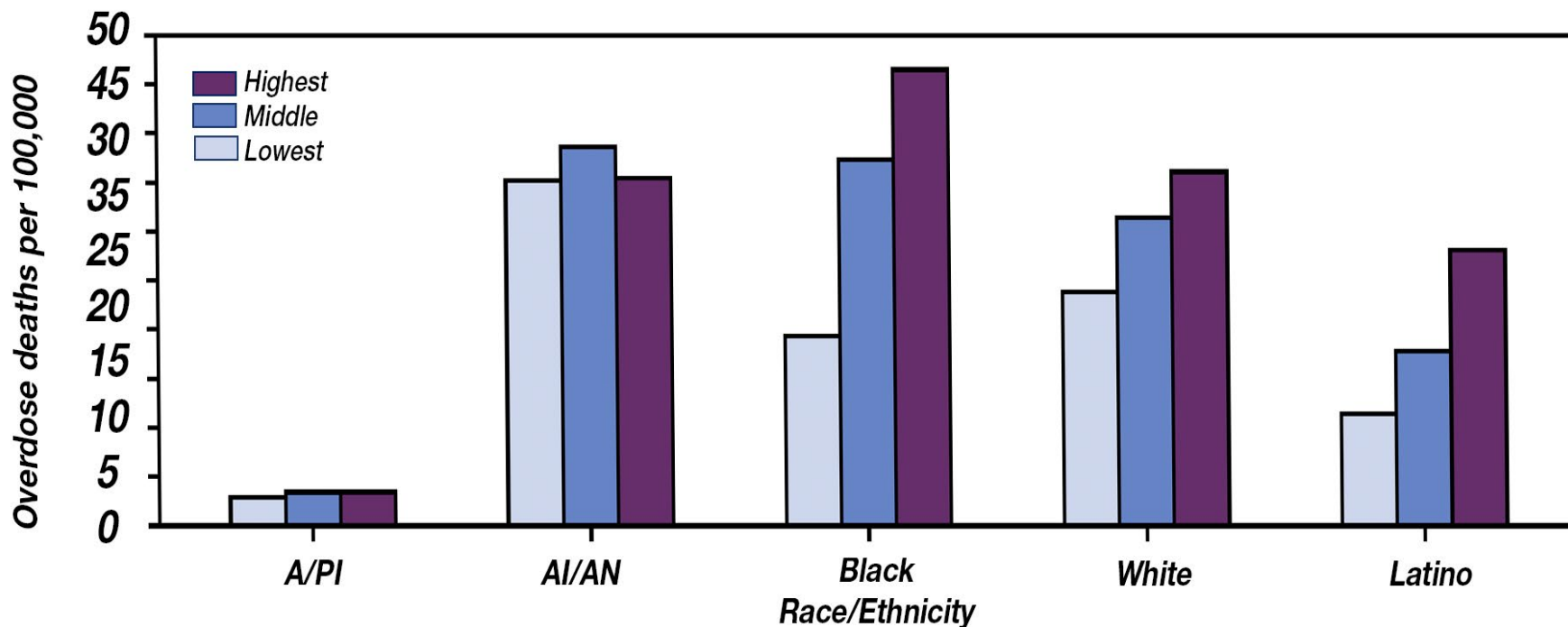
*Using National Prevalence from MEPS and Crude Death Rates
Comparison to 90th/10th percentile Health Equity Goals*

	American Indian or Alaskan Native	Asian	African American or Black	Latino or Hispanic	Native Hawaiian or Pacific Islander	Total Compared to Healthy People 2030
Excess Medical Care Costs	2.8	4.9	42.0	25.4	Not Available	75.1
Lost Labor Market Productivity Costs	4.7	0.9	31.5	22.0	Not Available	59.1
Excess Premature Deaths Costs	20.0	0.0	238.0	9.4	19.5	286.9
Grand Total	27.5	5.8	311.5	56.8	19.5	421.1



Age Adjusted Overdose Deaths by Race/Ethnicity and Income Inequality

25 States and DC, 2019-2020; *MMWR* 2022; 71:29: 940-947

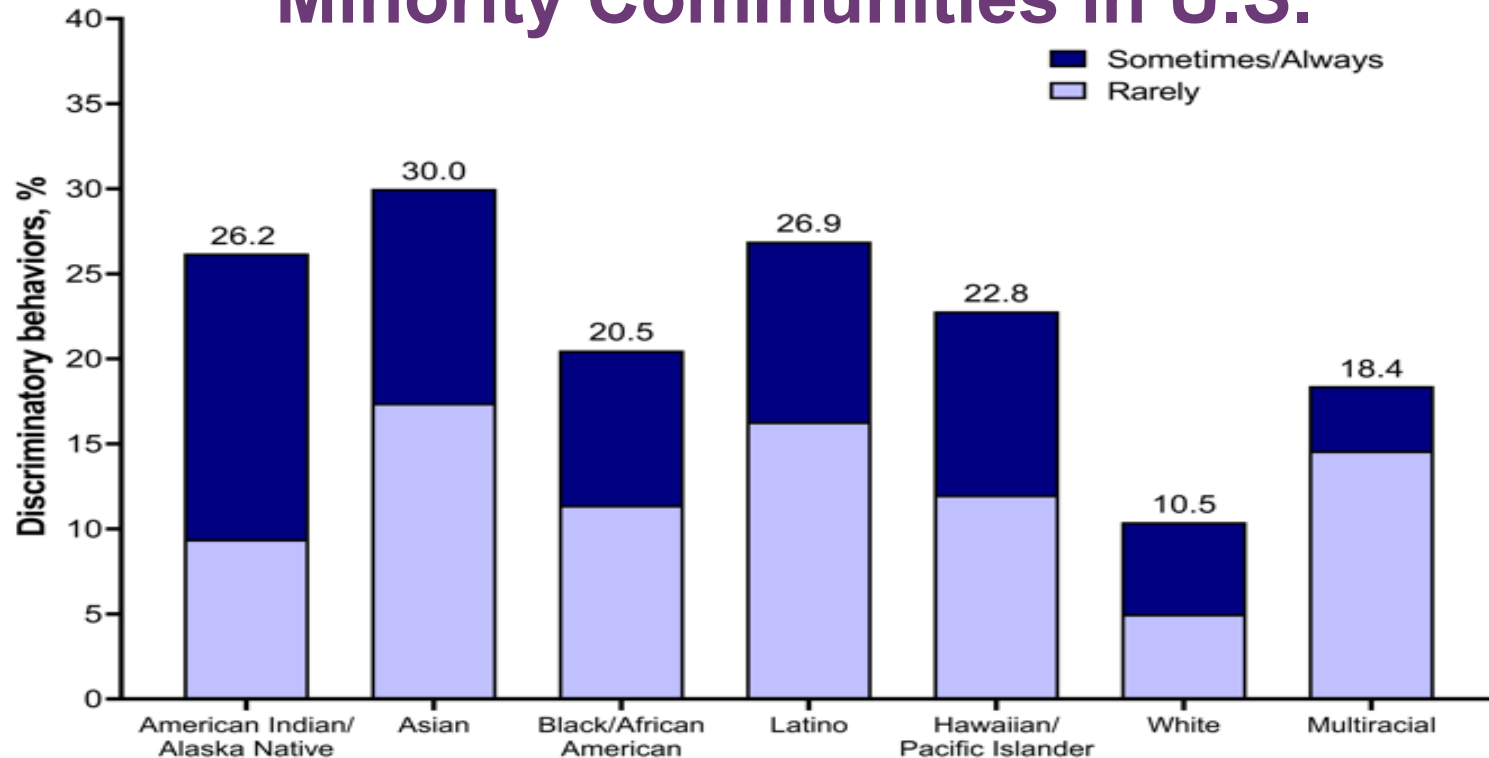


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COVID-Related Discrimination in Racial/Ethnic Minority Communities in U.S.



- Asian and AI/AN adults were most likely (aOR=2.59 and 2.67)
- Limited English proficiency associated with more discrimination

COVID-19 may have exacerbated pre-existing resentment against marginalized communities



Rate of COVID-19-Associated Deaths per 100,000 in the US, 2020–2022

Race and Ethnicity	2020	2021	2022
AI/AN	190.8	201.8	86.8
Asian	67.2	66.6	34.1
Black	154.8	151.4	72.9
NH/PI	123.5	200.9	67.8
White	74.1	105.0	61.2
Latino	164.8	161.7	60.9
Multiracial	31.9	50.7	26.7

*Deaths per 100,000 (age-adjusted)

National Vital Statistics System, MMWR-May 5, 2023; 72(18); 493-496



Precision Medicine Approach to Smoking Cessation in American Indian Adults

- **AI adults experience lower smoking quit rates compared to other racial/ethnic population groups**
- Examined correlations between nicotine metabolite ratio (NMR, dependence and smoking exposure; (2) assessed the extent that pharmacotherapy preference aligned with NMR-informed recommendations; (3) explored acceptability of NMR-informed pharmacotherapy selection
- 54 AI adults who smoked provided salivary and urinary samples and were surveyed; 54% were slow metabolizers; had lower cigarette dependence
- Preferred nicotine replacement therapy (71%) over varenicline (29%)
- NMR-informed recommendation acceptability lower in AI adults (62%) vs prior work in White or Black/African American (97.5%) adults
- ✓ **NMR-informed care needs a more holistic, culturally-tailored approach to maximize quit rates in AI adults**



NIMHD Health Disparities Research Institute

- **A week-long intensive and engaging training experience launched in 2016**
- **Early-stage investigators and postdoctoral fellows**
- **Lectures by selected leading scientists in minority health and health disparities focused on 3 themes**
- **Mock grant review session using real applications**
- **Meetings with NIH scientific program staff engaged in minority health and health disparities research**
- **Consultations on the development of research interests into a K or R01 application, as well as research strategies and methodologies for proposed studies**
- **458 participants in 8 years, about 60% URM, 20% MDs**

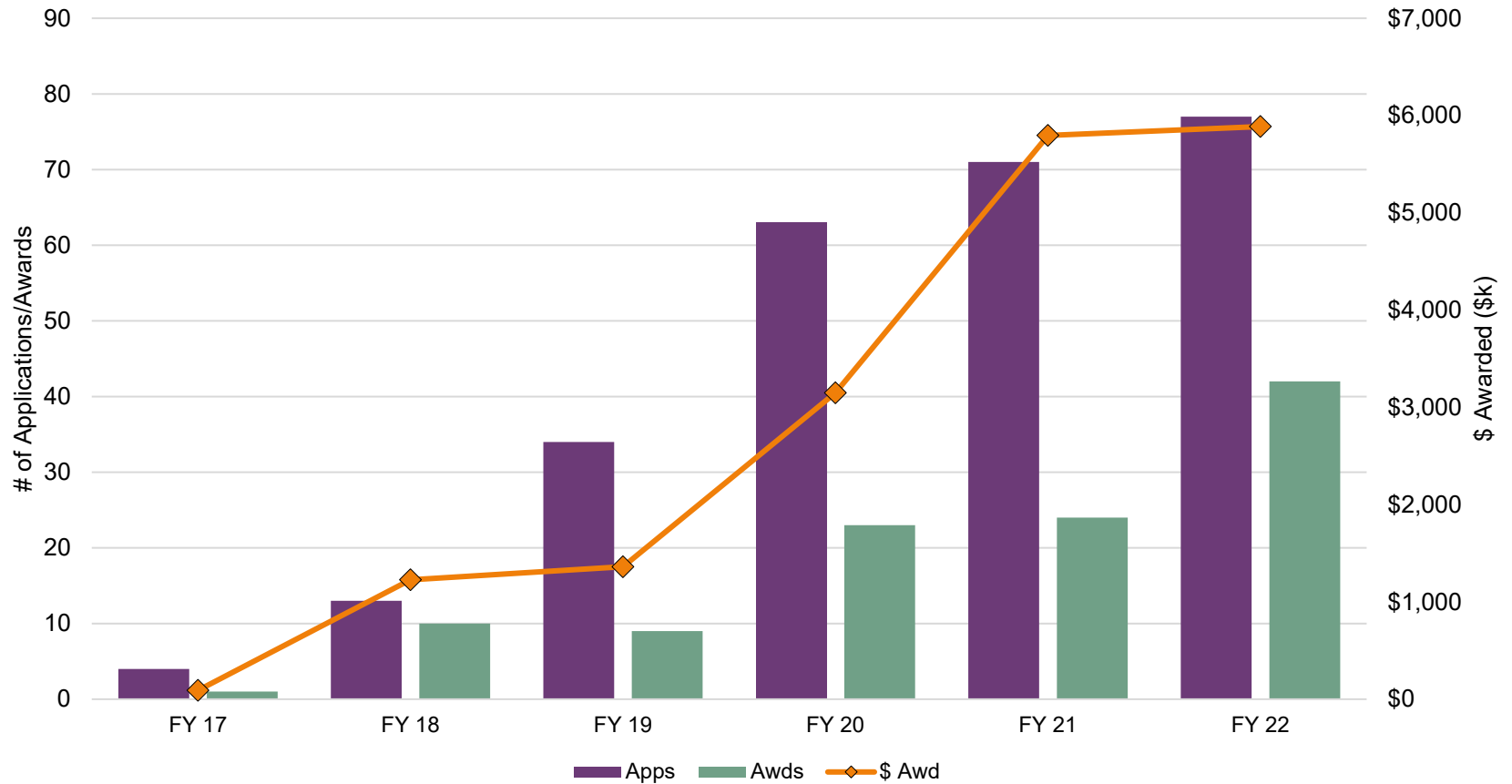


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Growing Interest in Career Development Awards – K01, K08, K23, K99

FY17-FY22 Competing Career (K) Applications and Awards





at a glance



138

COVID-19 testing and SEBI projects



56

States, territories, and D.C.



1

Coordination & Data Collection Center

Data as of 8/11/2023



245

Community-engagement resources in the RADx-UP library



115

Projects submitting CDEs to CDCC



396,087

Enrolled participants (prospectively)



436,313*

COVID-19 tests conducted (prospectively)



9

Partnering for Impact writing teams



25

Rapid Research Pilot Awards



55

Community Collaboration Grants



231

Published research articles



National Institute on Minority Health and Health Disparities



Social Determinants of Health Measures

- PhenX Toolkit on SDOH measures:
<https://www.phenxtoolkit.org/collections/view/6>
- Demographics and individual determinants
- **15 New Structural SDOH Protocols added in December 2022:** Affordability accessing dental care and prescriptions, health care communications, internet access, water quality access, neighborhood walking environment, housing instability, minimum wage, residential concentrations of income
- SDOH Core Collection-16 protocols recommended for all
- Individual SDOH-22 protocols and Structural SDOH-15 protocols

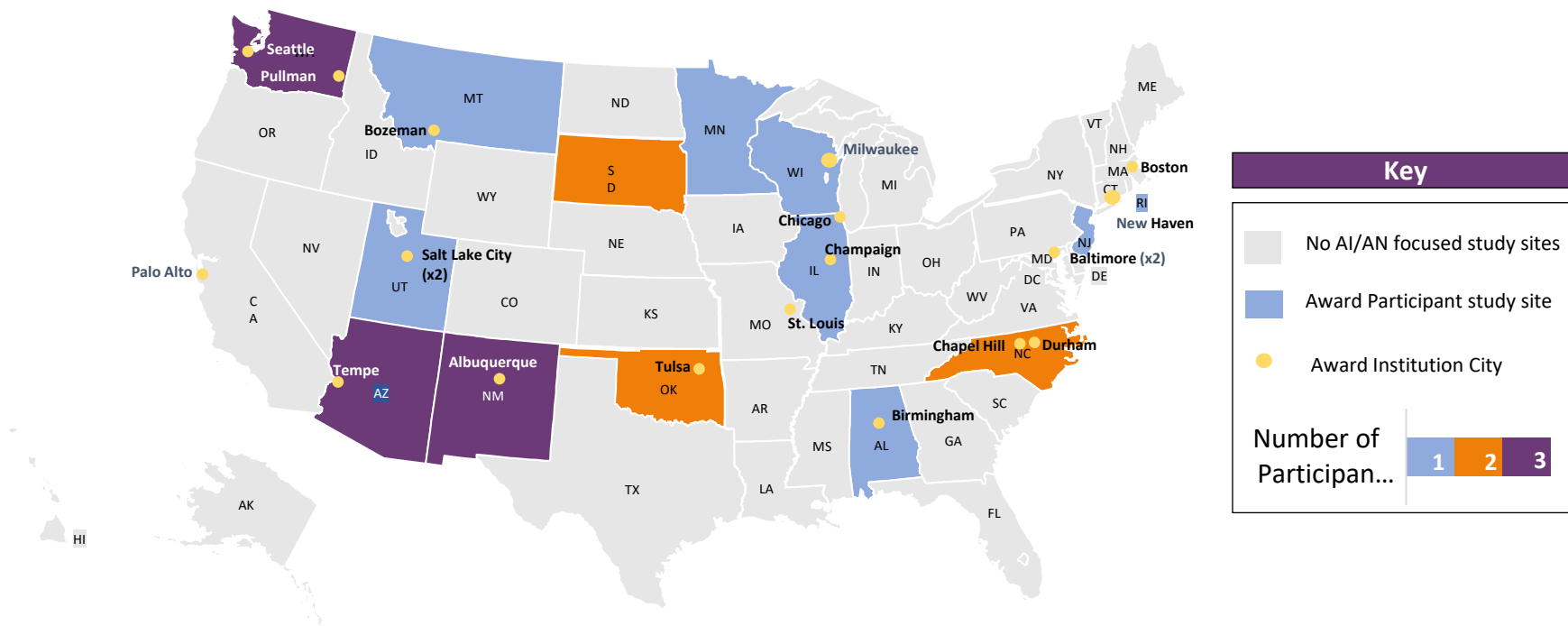


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Ten AI/AN RADx-UP Awarded Projects

Projects focused on or that include AI/AN populations



Note: Four projects have studies across multiple states; the total number of participant study sites does not add up to the total number of projects represented.



COVID-19 Testing Factors Among Great Plains American Indians

- A cross-sectional survey study of 679 Tribal members, ages 18 to 80 years, 70% female, 60% > high school education, across 3 Reservations in October 2021
- Full time employment (47%), ability to isolate if diagnosed with COVID-19 (91%), and endorsing that COVID-19 testing is only needed if one has symptoms were correlated with having been previously tested for COVID-19
- Unemployed, lack of ability to isolate, and believing that testing was not needed if asymptomatic (27%), were half as likely to be tested

Purvis SJ, et al., *Journal of Racial and Ethnic Health Disparities*. Online October 2022



RADx-UP Data Use and Sharing

- Five of the TN Projects executed Data Use Agreements (DUAs) with the CDCC and transferred data
- Data sharing agreements required from their Tribal IRBs
- Enrolled both AI/AN participants and from other groups
- CDCC has withheld their AI/AN participants' data from all analyses, reports, dashboards, datasets, and data uploads to the RADx Data Hub while awaiting the Tribal data sharing agreement documentation
- Tribal Nations zip codes are being excluded from analyses, reports, dashboards, and datasets



Tribal Data Repository Tribal Consultation Process and Funding Opportunity

- May 2020: NIH Tribal Consultation for COVID-19 Research
- July 20, 2021: NIH RADx Tribal Data Repository
NIH Pre-Tribal Consultation Informational Webinar¹
- July 30, 2021: NIH RADx Tribal Data Repository-
NIH Tribal Consultation¹
- August 31, 2021: End of Open Comment Period
- NIMHD Council clears concept, funding opportunity published, applications reviewed
- NIH-OD awarded \$7M to go to the Native BioNative Consortium to develop the RADx Tribal Data Repository, as part of a larger award to the RADx Data Hub consortium
- CDCC supplement to assist with community engagement and coordination



Research Priorities

- Develop an independent research data repository governed under principles and practices of tribal sovereignty for data sharing
- Provide responsible data sharing and access to researchers and their collaborators who are working with RADx AI/AN research data
- Collaborate with the RADx-UP Coordination and Data Collection Center [<https://radx-up.org>]
- Support and promote AI/AN scientists working with these communities
- Supported by NIH Office of Data Science Strategies with RADx appropriations and managed by NIMHD



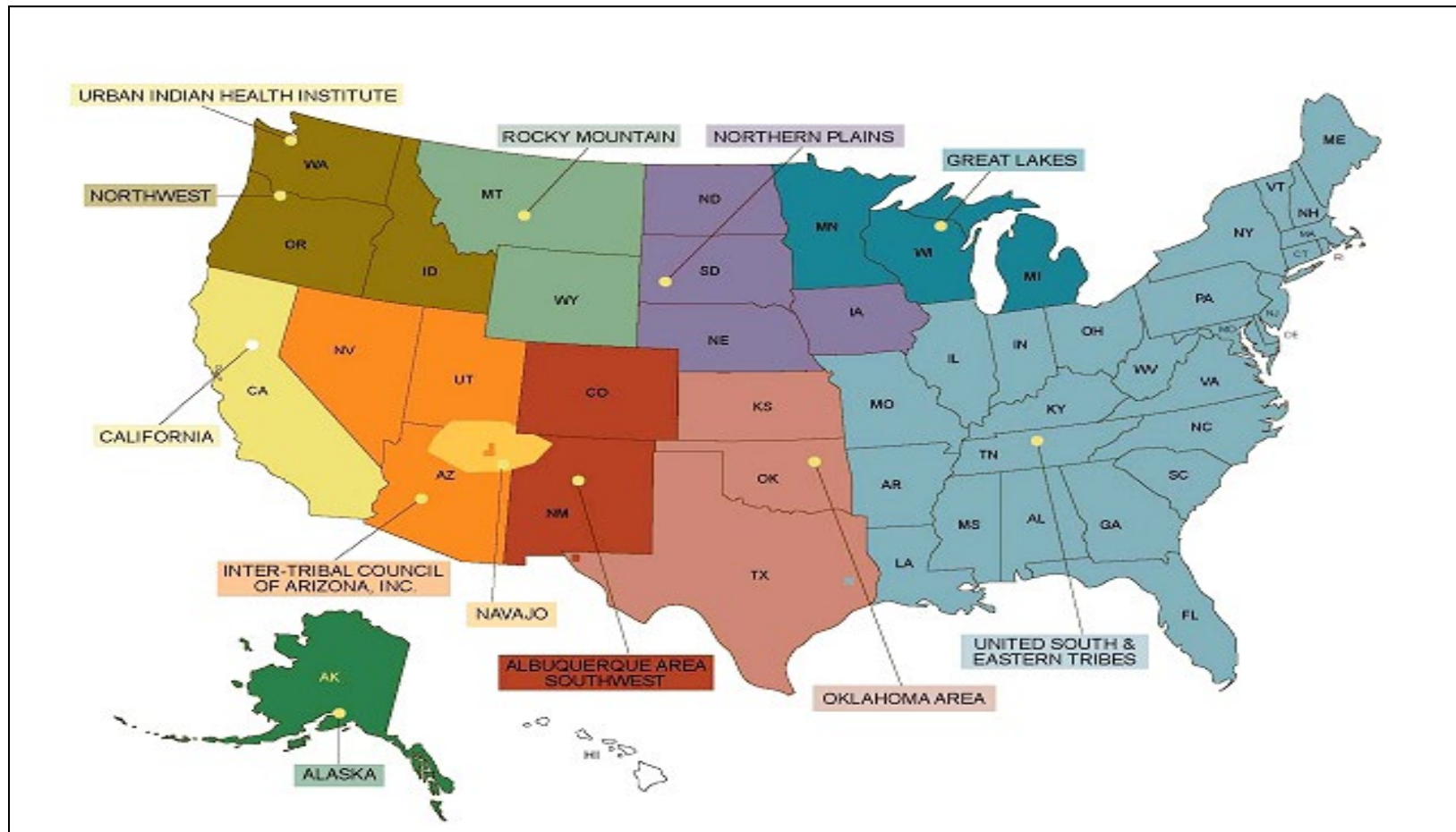
Tribal Epidemiology Centers

- Census reported 9.7 million individuals who self-identify as AI/AN — 2.9% of the population
- Tribal Epidemiology Centers (TECs) were established in 1996 under the re-authorization of the Indian Health Care Improvement Act (IHCIA) and funded by the Indian Health Service (IHS)
- TECs serve AI/AN communities and populations through the collection and analysis of health surveillance data, maintenance of patient registries, implementation and evaluation of public health interventions, development of health awareness campaigns, and mobilization of emergency response to public health crises



Tribal Epidemiology Centers

12 TECs within each of the IHS administrative areas



https://www.ihs.gov/epi/index.cfm?module=epi_tec_tecs



U24 TEC Resource Center at U Colorado

- Provide subawards of \$100,000 directly to each TEC to enhance capacity — continuity and increased support
- Provide technical assistance to the TECs through as-needed consultations to individual TECs as well as webinars or workshops
- Development of more research skills and support a sustained mentoring program
- Emphasis on data science capacity building – programs
- Disseminate information about NIH and other Federal research funding, training, and mentorship opportunities, and provide technical assistance on applications for research grant funding.
- Maintain a compendium of publicly available resources generated by the TECs, including publications, reports, and public health campaign materials







NIMHD Vision for TECs

- **Network of Tribal-based organizations to conduct research by Native investigators**
- **Facilitate opportunities for grant funding from NIMHD and other NIH institutes**
- **Provide opportunities for supplemental funding through the U24**
- **Expand the scope to tribal organizations and Native investigators on a regional basis**



National Institute on Minority Health and Health Disparities Research Framework

		Levels of Influence*			
		Individual	Interpersonal	Community	Societal
Domains of Influence <i>(Over the Lifecourse)</i>	Biological	Biological Vulnerability and Mechanisms	Caregiver–Child Interaction Family Microbiome	Community Illness Exposure Herd Immunity	Sanitation Immunization Pathogen Exposure
	Behavioral	Health Behaviors Coping Strategies	Family Functioning School/Work Functioning	Community Functioning	Policies and Laws
	Physical/Built Environment	Personal Environment	Household Environment School/Work Environment	Community Environment Community Resources	Societal Structure
	Sociocultural Environment	Sociodemographics Limited English Cultural Identity Response to Discrimination	Social Networks Family/Peer Norms Interpersonal Discrimination	Community Norms Local Structural Discrimination	Social Norms Societal Structural Discrimination
	Health Care System	Insurance Coverage Health Literacy Treatment Preferences	Patient–Clinician Relationship Medical Decision-Making	Availability of Services Safety Net Services	Quality of Care Health Care Policies
Health Outcomes		 Individual Health	 Family/ Organizational Health	 Community Health	 Population Health

National Institute on Minority Health and Health Disparities, 2018

*Health Disparity Populations: Race/Ethnicity, Low SES, Rural, Sexual/Gender Minority
Other Fundamental Characteristics: Sex/Gender, Disability, Geographic Region

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Tribal Nations Projects - Locations and Recruitment States

Grant #	Awardee Institution	Awardee Location	Recruitment States
3 U54 MD002316-14S1	Arizona State University, Tempe (Marsiglia)	Tempe, AZ	Arizona, New Mexico
3 S06 GM127983-03S1	Cherokee Nation	Tahlequah, OK	Oklahoma
3 U19 MH113136-04S2	Johns Hopkins University (Cwik)	Baltimore, MD	Arizona, New Mexico
1 OT2 HD107543-01	Johns Hopkins University (Haroz)	Baltimore, MD	Arizona, New Mexico, Utah
3 R01 CA240080-02S1	Massachusetts General Hospital (Armstrong)	Boston, MA	South Dakota
3 P20 GM104417-07S1	Montana State University	Bozeman, MT	Montana, Washington
3 R01 MD012767-04S1	North Carolina Central University	Durham, NC	North Carolina
3 U54 MD010724-05S1	Stanford University (Maldonado)	Stanford, CA	South Dakota
3 U54 GM104938-08S1	University of Oklahoma Health Sciences Center	Oklahoma City, OK	Oklahoma
3 U54 MD011240-05S1	Washington State University	Seattle, WA	Alaska, Colorado, Kansas, Minnesota, Oklahoma, Washington



Manuscripts from 10 Tribal Nations Projects

Citation

Purvis SJ, Soltoff A, Isaacson MJ, Duran T, Johnson G, LaPlante JR, Tobey M, Armstrong K. COVID-19 testing factors among Great Plains American Indians. *J. Racial Ethn. Health Disparities*. 2022;1-12. doi: 10.1007/s40615-022-01433-0

Hammitt LL, Vigil DE, Reid R. Tribal sovereignty in research and community engagement for a COVID-19 vaccine clinical trial on the Navajo Nation: Beyond a Facebook town hall. *Am. J. Public Health*. 2021; 111(8):1431-1432. doi: 10.2105/AJPH.2021.306400

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Oh H, Marsiglia FF, Pepin S, Ayers S, Wu S. Health behavior and attitudes during the COVID-19 pandemic among vulnerable and underserved Latinx in the Southwest USA. *Prev. Sci*. 2023:1-12. doi: 10.1007/s11121-023-01512-6

Thompson MJ, Drain PK, Gregor CE, Hassell LA, Ko LK, Lyon V, Ahmed S, Bishop S, Dupuis V, Garza L, Lambert AA, Rowe C, Warne T, Webber E, Westbroek W, Adams AK. A pragmatic randomized trial of home-based testing for COVID-19 in rural Native American and Latino communities: Protocol for the “Protecting our Communities” study. *Contemp. Clin. Trials*. 2022; 119:106820. doi: 10.1016/j.cct.2022.106820



Manuscripts from 10 Tribal Nations Projects

Citation

Haroz EE, Kalb LG, Newland JG, Goldman JL, Mast DK, Ko L, Grass R, Shah P, Walsh T, Schuster JE. Implementation of school-based COVID-19 testing programs in underserved populations. *Pediatrics*. 2022; 149:e2021054268G. doi: 10.1542/peds.2021-054268G

Allison-Burbank JD, Ingalls A, Rebman P, Chambers R, Begay R, Grass R, Tsosie A, Archuleta S, Barlow A, Larzelere F, Hammitt L, Tingey L, Haroz E. Measuring the effects of the COVID-19 pandemic on Diné and White Mountain Apache school personnel, families, and students: Protocol for a prospective longitudinal cohort study. *BMC Public Health*. 2022; 22(1):1481. doi: 10.1186/s12889-022-13208-7

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Boutzoukas AE, Zimmerman KO, Inkelas M, Brookhart MA, Benjamin DK, Butteris S, Koval S, DeMuri GP, Manuel VG, Smith MJ, McGann KA, Kalu IC, Weber DJ, Falk A, Shane AL, Schuster JE, Goldman JL, Hickerson J, Benjamin V, Edwards L, Erickson TR, Benjamin DK. School masking policies and secondary SARS-CoV-2 transmission. *Pediatrics*. 2022; 149(6):e2022056687. doi: 10.1542/peds.2022-056687

D'Agostino EM, Haroz EE, Linde S, Layer M, Green M, Ko LK. School-academic partnerships in support of safe return to schools during the COVID-19 pandemic. *Pediatrics*. 2022; 149:e2021054268C. doi: 10.1542/PEDS.2021-054268C

