

Health Workforce Issues in American Indian and Alaska Native (AI/AN) Populations

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INTRODUCTION

American Indian and Alaska Native (AI/AN) individuals receive health care in all the same health care settings and venues as any other racial/ethnic group in the United States.¹ The Indian Health Service (IHS), however, is a primary provider of *federal* health care that is specific to the AI/AN population. The IHS is a division within the U.S. Department of Health and Human Services responsible for providing direct medical and public health services to members of federally recognized AI/AN tribes. With fewer than 20% of AI/AN individuals enrolled as members of a federally recognized tribe, IHS facilities often being geographically inaccessible to those that are eligible for their services, and the limited services offered by the IHS (described below), many AI/ANs need to obtain services outside of the IHS. Thus, discussions about the health workforce serving the AI/AN population should consider both workforce issues within the IHS and culturally appropriate care in all health care settings.

In this rapid response policy brief we provide an overview of the IHS, discuss tribally operated health services, and access to health services and insurance outside of tribal or IHS networks. Understanding how AI/AN populations obtain care is important to identifying the health workforce that may serve the AI/AN community. We also describe the representation of AI/AN populations within the health care workforce. We highlight recommendations and strategies identified to strengthen the health workforce providing care for AI/AN populations based on the limited public information available on the IHS workforce and workforce-specific studies on AI/AN population needs.

AI/AN ACCESS TO HEALTH COVERAGE AND CARE

The Indian Health Service (IHS)

Through a series of treaties going back to 1784, the U.S. government assumes responsibility to provide health care to federally recognized tribes and their descendants.^{2,3} AI/AN individuals are the only racial group that have this sovereign right in the U.S.⁴⁻⁷ The responsibility of delivering health care to AI/AN populations has changed hands across the federal government multiple times and currently resides with the IHS, which today provides care to approximately 2.2 million

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members of federally recognized tribes (see **Boxes 1 and 2**).^{8,9} IHS services consist largely of primary and emergency care, but include some ancillary and specialty services.¹⁰ The IHS operates facilities in 37 states and currently consists of 630 health centers, clinics, and health stations (health stations provide primary care services, but are typically smaller than IHS clinics and offer limited hours).^{11,12} The IHS also operates 46 hospitals that range in size from 4 to 133 beds.^{11,13}

BOX 1. DEMOGRAPHICS AND TRIBAL REPRESENTATION

Representation of AI/ANs in U.S. Population^{14,15}

- 9.6 million, or 2.9% of U.S. population in 2020
 - 3.7 million identified as AI/AN as only race
 - 5.9 million identified as AI/AN in combination with another racial group

Number of tribes⁷

- 574 federally recognized tribes
- 63 state-recognized tribes
- Note: Tribal status may be formally recognized by the U.S. federal government, by states, or by the tribe only. State and federally recognized tribes do not necessarily recognize one another.^{16,17}

Tribal enrollment and residence

- An estimated 1.9 million AI/AN individuals (less than 20% of those who self-report as AI/AN) are enrolled members of a federally recognized tribe. Of these, 22% live on reservations or other trust lands and approximately 60% live in metropolitan areas.^{7,16}
- Approximately half of federally recognized tribes are not associated with a reservation.⁷

Tribal languages

- English is the predominant language spoken at home, school and the work place in AI/AN communities, but 169 tribal languages are also spoken among an estimated 372,000 individuals.¹⁸

BOX 2. CRITERIA FOR TRIBAL ENROLLMENT

Tribes themselves decide who qualifies as a member and eligibility criteria differ from tribe to tribe.⁷ Common requirements for membership are documented tribal lineage, relationship to a tribal member who descended from someone named on the base roll (i.e., the original list of members as designated in a tribal constitution), tribal blood quantum, tribal residency, or continued contact with the tribe.^{19,20}

IHS care for AI/ANs living in urban areas

Most IHS funds are appropriated for AI/ANs who live on or near reservations or Alaska Villages, which are typically in remote rural locations (see **Box 3**).²¹

However, since the 1950s when the IHS was developed, more than 1 million AI/AN individuals have moved to metropolitan areas from reservations, making access to IHS facilities difficult.²² Although 60-70% of AI/AN individuals live in urban areas only 1% of the IHS budget is directed toward urban Indian health centers and programs.^{8,11} Thirty-three urban Indian health projects supplement IHS facilities by providing limited primary care services, community health, and outpatient and inpatient substance abuse services to members of federally recognized tribes who live in select urban areas.²³ Recent efforts, such as grants, additional funding, and calls to action have drawn attention to the need for health services among AI/AN individuals living in urban areas.^{24,25}

Tribally operated health services

The IHS also provides care through services purchased from private providers and tribally contracted and operated health programs.^{8,11} Eighty percent of the 630 health centers, clinics, and health stations and one third of IHS hospitals are tribally

BOX 3. FUNDING AND STRUCTURE OF IHS

IHS funding is limited and must be appropriated by Congress each fiscal year.²⁶ The appropriated funds are then distributed to IHS facilities across the country and serve as their annual budget. If service demands exceed available funds, services are prioritized or rationed.²⁶ In 2021, the federal appropriation for the IHS was \$6.24 billion.²⁷ IHS and tribal providers supplement IHS funding with reimbursement for provided services from private insurers, Medicare, Medicaid, the Veterans Administration, funding from tribes, and grants.²⁸ In fiscal year 2019, \$1.14 billion was collected from third party insurers, of which \$995 million was collected from Medicare and Medicaid and \$138,349 million was collected from private insurers.²⁹

The federal funding that IHS receives is shared between Direct Service Tribes (DSTs) and Self-Governance Tribes (SGTs).

- DSTs: Tribes that in whole or in part receive primary health care directly from the IHS. DSTs choose to rely on the IHS for health care delivery due to a lack of resources and infrastructure, rural location, and a belief that the United States upholds its treaty obligations by providing direct services.¹¹
- SGTs: Tribes that negotiate with IHS and assume funding and control over programs, services, and functions that IHS would otherwise provide. Tribes are increasingly choosing to operate their own health programs.¹¹

DSTs receive roughly 40% of IHS's funding and approximately 56% of the IHS budget is operated directly by the tribes through self-governance contracts and compacts.¹¹

operated.¹¹ Additionally, an increasing number of tribes operate their own health systems independent of IHS.³⁰⁻³² This transfer of resources and authority from federal agencies allows tribes to assume control and responsibility to design, implement, and provide services that are better tailored to local tribal needs.³⁰

Access to Federally Qualified Health Centers

Federally Qualified Health Centers (FQHCs) delivered care to 350,000 AI/AN individuals in 2020. FQHCs are federally funded clinics that provide primary care in underserved areas on a sliding fee scale based on ability to pay.³³ While AI/ANs make up a relatively small percentage of the overall FQHC patient population, the number reflects a relatively large proportion of individuals in the AI/AN community.³⁴ Well-documented workforce challenges in FQHCs include recruiting and retaining a primary care workforce that keeps up with patient demand and has education and training to address patients' social determinants of health.³³

Access to health insurance

It is important to note that IHS is not a health insurance provider. IHS provides only direct care at its own facilities.³⁵ If a patient receives medical or dental care at a non-IHS facility, the IHS does not guarantee payment, even for services that it has referred.³⁵ Thus, AI/AN populations often need

other health insurance to supplement their IHS care. To highlight the need for supplementary insurance, the Centers for Medicare & Medicaid Services (CMS) distributes a booklet to eligible AI/AN individuals titled "10 Important Facts About the Indian Health Service and Health Insurance: Why Your Indian Health Benefits May Not Be Enough," which explains that additional insurance will facilitate patients' ability to receive specialty care, obtain health care when away from home, and receive numerous services that are not covered through IHS.²⁶ AI/AN populations, as U.S. citizens, are eligible to participate in private health insurance as an individual purchaser or through an employer, or through public health programs such as Medicaid and Medicare.¹ IHS facilities and providers accept private health insurance, Medicaid, Medicare, and Children's Health Insurance Program (CHIP) insurance.²⁶

In 2019, 15% of AI/AN individuals of all ages were uninsured, 52% had private health insurance coverage, and 42% had Medicaid/CHIP, Medicare, or other public health coverage.³⁶ By comparison, 6% of non-Hispanic Whites were uninsured, 75% had private health insurance, and 34% were Medicaid/CHIP, Medicare, or other public health beneficiaries.^{16,36} A caveat to these findings is that the Census does not classify the IHS as health insurance coverage because of the limited scope of available services and restricted geographic reach of IHS facilities. Those who report having only IHS coverage are considered uninsured.^{36,37}

Medicaid is an important source of health care coverage in the AI/AN population (see **Box 4**). As of 2018, approximately 1.8 million AI/AN individuals were enrolled in Medicaid, including 36% of AI/AN adults under age 65.²⁷ Another common source of supplementary health care is the Veterans Health Administration (VHA). AI/AN individuals serve in the military at higher rates than the general U.S. population (19% vs. 14%), and approximately one-quarter of IHS-enrolled veterans also receive health care from the VHA.³⁸⁻⁴⁰

The Affordable Care Act (ACA) contributed to about 300,000 uninsured AI/AN individuals obtaining health coverage.^{41,42} The uninsured rate of AI/AN individuals under age 65 decreased from 44% in 2010 to 28% in 2018.³⁶ The ACA allows members of federally recognized tribes to obtain health insurance through Health Insurance

Marketplaces throughout the year rather than just during the annual open enrollment period. These insurance options remove copays, deductibles or coinsurance when receiving care from IHS providers or through a qualified health plan with a referral from an IHS provider.³⁶

BOX 4. PROTECTIONS FOR AI/AN MEDICAID BENEFICIARIES

The IHS and tribes may bill for services provided to patients enrolled in Medicaid and other insurance programs. Medicaid collections are a particularly important source of revenue. In 2019, Medicaid collections at IHS-run facilities amounted to \$808 million, nearly 70% of total collections from third party insurers.²⁷

Several special rules and protections apply to AI/AN Medicaid beneficiaries, IHS providers, and tribal governments.²⁷ For example:

- **Financial eligibility:** Income from selling culturally significant items (jewelry, basketwork) are not taken into account when determining income-based Medicaid or CHIP eligibility for AI/AN individuals.
- **Cost sharing:** States cannot impose premiums, cost sharing, enrollment fees, or similar charges on AI/AN Medicaid or CHIP beneficiaries.
- **Tribal consultation:** The Centers for Medicare & Medicaid Services (CMS) are required to seek consultation and participation of tribes when developing policies and program activities that affect them or the relationship between tribes and the federal government. States are also subject to tribal consultation requirements. Any state with one or more Indian health provider must seek advice and input prior to submitting a Medicaid or CHIP state plan amendment, waiver request, or demonstration project that is likely to have a direct effect on AI/AN beneficiaries and Indian health providers.

THE HEALTH WORKFORCE IN THE INDIAN HEALTH SERVICE

The IHS workforce

Approximately 15,000 employees provide direct patient care and clinical support services at IHS facilities.^{43,44} IHS staff is made up of civil servants (professionals who work for the government and whose salaries are paid by taxpayers), federal employees, and U.S. Public Health Services Commissioned Officers.⁴⁴ In 2019 (the most recent data available), the IHS clinical staff consisted of approximately 2,380 nurses, 726 physicians, 798 pharmacists, 270 dentists, 195 environmental health and sanitarians, and 104 physician assistants.⁴⁵ The IHS also employs a variety of other health care professionals such as nutritionists, health administrators, medical records administrators, community health aides, dental health therapists, psychologists, and other mental health and substance use disorder providers.^{11,30}

Over two thirds (69%) of IHS employees identify as AI/AN.⁴³ Since the signing of the Indian Preference Law in 1934, the IHS has been required to provide job preference to applicants from the AI/AN community.⁴⁶ Other candidates may be considered in the absence of a qualified AI/AN applicant.¹ IHS physicians are required to be U.S. citizens and to have an active and unrestricted medical license from any state in the U.S. or its territories.⁴³ Some facilities in highest need areas, however, will consider a non-residency trained physician for employment as a general practitioner.¹

IHS challenges affecting the health workforce

Funding shortages. Despite the extensive network of health services and facilities, the literature has found IHS services to be substandard compared to private or tribal-run health systems, delivered through aging facilities, and often lacking basic infrastructure.^{31,32,47,48} These criticisms may be associated with the lower level of funding received by IHS per patient versus other federally funded health services. According to a report by the National Congress of American Indians, in 2017 the IHS spent \$3,332 per patient compared to Medicare expenditures of \$12,829 per patient and VHA spending of \$7,789 per patient.³ A caveat to these comparisons is that current IHS funding levels are estimated to cover 60% of the health needs of eligible AI/AN individuals, thus specialty care does not typically factor into IHS expenditures.⁵ Due to chronic underfunding and staffing shortages, IHS staff often must prioritize and ration services.^{27,28} The need to ration care and work with such limited resources is reported to have a negative impact on staff morale and contributes to staff concerns about employment security.^{49,50}

Staffing shortages. The IHS has struggled with long-standing staffing shortages. According to the U.S. Government Accountability Office (GAO), in 2017 the overall vacancy rate for providers (specifically, doctors, nurses, nurse practitioners, certified registered nurse anesthetists, certified nurse midwives, physician assistants, dentists, and pharmacists) was 25% and ranged from 13% to 31% depending on the geographic area.⁵¹

IHS uses multiple strategies to recruit and retain providers, including offering increased salaries for certain positions and subsidized housing when possible.⁵¹ The challenges to recruitment include an inability to compete with salaries at non-IHS facilities, housing shortages in communities where many IHS facilities are located, and other persistent and common difficulties in attracting health workers to rural and remote locations.⁴³ To address these gaps, IHS uses strategies such as contracting with temporary providers (e.g., “travelers” and other contract staff) to maintain patient access to services and reduce provider burnout.⁵¹ These temporary providers, however, are more costly than salaried employees and can further strain the limited budgets of health care facilities.^{52,53} Data on the extent to which travelers have been used in IHS facilities and how much financial strain it has put on these facilities are not publicly available.

Reports suggest that, due to inadequate hiring oversight, some IHS facilities have employed individuals with revoked licenses and other regulatory sanctions, leading to medical mistakes and malpractice settlements.⁵⁴ Data regarding how frequently this occurs in IHS facilities compared with other types of health care facilities are not available.

REPRESENTATION OF AI/AN POPULATIONS WITHIN THE HEALTH CARE WORKFORCE

Nearly 70% of IHS employees identify as AI/AN, but AI/AN populations are underrepresented in the general health workforce and among health occupation students.^{43,46} For example, while 2.9% of the overall U.S. population is AI/AN, 0.3% of all active physicians in 2018 and 0.6% of medical residents in 2020 reported being AI/AN.^{14,55,56} The 2018 National Sample Survey of Registered Nurses found 0.3% of the nation’s licensed RNs were non-Hispanic AI/AN, significantly less than the 2.9% of the nation’s population that is AI/AN.^{14,57} There are some signs of improvement in AI/AN representation in the health workforce over time. According to the 2020 National Nursing Workforce Survey (NNWS), 0.5% of the registered nursing workforce reported being AI/AN compared to 0.04% in the 2017 NNWS.⁵⁸ Of concern are the barriers that may exist in the pathways to health care careers. For example, AI/AN individuals have 63% lower odds of applying to medical school compared with the general U.S. population.⁵⁹

Publicly available data on the representation of AI/AN populations across health care occupations and among graduating students are often not available as researchers tend to group them with other racial groups due to small sample size. Ongoing work at the University of Washington Center for Health Workforce Studies aims to examine the representation of AI/AN populations from select allied health professions that have seen changes in degree requirements over time.⁶⁰ Also, limited resources may be available to have dedicated data collection on the characteristics of the AI/AN workforce supply within

specific occupations, and sampling designs used in many national surveys may not provide enough accuracy to allow for detailed analysis of AI/AN populations within the health workforce.⁶¹ While the U.S. Census' American Community Survey and Current Population Survey include variables for individuals' race and ethnicity, at the occupation-level the statistical error can be high: estimates of AI/AN race within an occupation are affected by the small numbers of a given occupation that occur in the survey sample, exacerbated by the relatively small numbers of individuals of some races in that occupation.

LOOKING FORWARD: WORKFORCE-RELATED OPPORTUNITIES TO IMPROVE AI/AN HEALTH CARE

Strengthening health care resources for AI/AN populations includes increasing the available number of AI/AN providers and removing barriers for AI/AN populations to enter health care careers. Where AI/AN providers are available, further work is needed to ensure that AI/AN populations have access to those providers. Given that many AI/AN patients may not have access to a provider with a concordant racial background, we need to ensure that the available health workforce has the patient-provider communication skills to provide culturally competent care and with available language translation services to meet the specific health needs of AI/AN populations.^{62,63}

The facilitators and barriers to ensuring an adequate supply of culturally competent health workforce to care for AI/AN populations overlap with what is known for workforce development more broadly, including in rural and medically underserved communities.⁶⁴⁻⁶⁶ Example programs that specifically promote health-oriented careers among AI/AN students include a range of scholarships and grants such as:

- **IHS Scholarship Program (IHSSP):** IHSSP began in 1978 and has awarded scholarships covering tuition, fees, monthly stipends and other school-related costs to nearly 7,000 AI/AN health professions students.^{67,68}
- **IHS Loan Repayment Program (LRP):** Applicants agree to serve for two years at an Indian health program in exchange for up to \$20,000 per year (up to \$40,000 for an initial two-year contract) in loan repayment funding.⁶⁹ Recipients with more than \$40,000 in loan debt can extend their initial two-year contract and receive up to an additional \$20,000 per year (plus up to \$4,000 for taxes) until their original qualifying educational loan debt is paid. More LRP awards go to areas in greatest need of health care workers.⁶⁹
- **Private, public and tribal scholarships:** Numerous scholarships have been created to facilitate and promote training for health careers among AI/AN students.⁷⁰⁻⁷⁵ These include undergraduate and graduate awards that focus on nursing, allied health professions, and community-based health.

Data are limited on the long-term effectiveness of any single scholarship or loan repayment program given challenges in tracking recipients over time and adjusting for self-selection into these programs.^{76,77} One study found that approximately 81% of IHS program participants serve in the same Indian, tribal or urban site one year after completing their service obligation.⁷⁸ In the fourth year after obligation, retention at the original site drops to about 50%, although some participants move to other facilities within the IHS system.⁷⁸ The effectiveness of any individual program needs to be evaluated in the context of larger efforts to recruit and retain health care workers from historically marginalized communities, with holistic and comprehensive approaches showing most promise.⁷⁹

Additional work is needed to improve access and availability of the health workforce in communities where AI/AN populations live and access care including rural and medically underserved areas as well as through IHS. Priority areas that have been identified in the literature to strengthen the health workforce to reduce health disparities (see **Box 5**) experienced by AI/AN communities include:

- Better data to track diversity of the health care workforce, career pathways of AI/AN health care workers, and the health outcomes of racial concordance between patients and providers among AI/AN populations.⁸⁴
- Address oral health disparities by increasing investment in the oral health workforce in IHS, which faces a high vacancy rate and low patient-to-dentist ratio relative to the general population.^{3,51} Use of dental therapists, “midlevel” oral health providers that offer basic dental treatment under the supervision of a dentist, is an increasingly popular approach to addressing AI/AN oral health needs.⁸⁵ Funding for the non-licensed dental therapists, however, is not available through government-sponsored programs without state approval, currently limiting their use to tribal self-funded employment.
- Increased access to a culturally competent behavioral health workforce that can provide harm reduction services, medications for substance use disorders, outpatient group and individual counseling, peer counseling, and inpatient/residential placements and a greater understanding of the disease of addiction.^{3,86}
- Develop infrastructure and capacity through workforce development and training as well as recruitment and staffing that supports the delivery of tele-behavioral health, integrated and trauma-informed care, long-term and after-care programs, screening, and community education programs.³

BOX 5. SOCIAL DETERMINANTS OF HEALTH

Social determinants of health are responsible, in part, for significant health status disparities between AI/AN communities and the general U.S. population,⁶ including poverty, poor housing, high unemployment, and geographic isolation.^{6,11}

Health disparities

Compared to other Americans, AI/AN populations have higher mortality from chronic liver disease and cirrhosis (4.6 times the ratio of the general population), diabetes (3.2 times), unintentional injuries (2.5 times), and intentional self-harm (1.7 times).⁶ Substance abuse and related behavioral health issues, infant mortality, and other preventable deaths are also disproportionately prevalent in AI/AN communities.³ The age-adjusted COVID-19 mortality rate is almost two and a half times the death rate for Whites and Asian Americans, and is higher than for any other group of Americans.⁴⁸ However, AI/AN communities have achieved higher COVID-19 vaccination rates compared to other racial and ethnic groups since COVID-19 vaccination began in early 2021.^{80,81}

Health care access disparities

One consequence to a fractured health system is a lack of consistent health care access. Compared to the general U.S. population, AI/AN individuals are less likely to report having a usual source of care, are more likely to avoid or delay medical care due to cost, and to report barriers to care such as living in remote rural areas, lack of transportation, and cultural and language barriers.^{9,27,82,83} Compared to White, non-Hispanic Medicaid beneficiaries, AI/AN beneficiaries are significantly less likely to report that it is always or usually easy to get needed medical care, tests, or treatments and that it is always or usually easy to get needed mental or behavioral health services, and are significantly more likely to report that they are never able to see a specialist as soon as needed.^{9,27}

CONCLUSION

AI/AN populations receive care in a variety of locations, some of which specifically target AI/AN tribal communities. Health insurance coverage is important to ensure that AI/AN populations have access to affordable health care. Where care is available, health care workers should ideally have the lived experience that reflects the community or otherwise have the training and education to provide culturally competent care. Improved data tracking of not only health disparities experienced by AI/AN populations but also the health workforce available and delivering care to AI/AN populations is critical to develop more targeted policy solutions.

REFERENCES

1. Indian Health Service. FAQs. Available at <https://www.ihs.gov/physicians/faq/#:~:text=for%20more%20information.-,Q.,American%20Indians%20and%20Alaska%20Natives>. Accessed April 2022.
2. Indian Health Service. The Birth of the Indian Health Service (2017). Available at: https://www.ihs.gov/sites/newsroom/themes/responsive2017/display_objects/documents/GOLD_BOOK_part1.pdf. Accessed April 2022.
3. National Congress of American Indians. Healthcare: Reducing Disparities in the Federal Health Care Budget (2020). Available at: https://www.ncai.org/07_NCAI-FY20-Healthcare.pdf. Accessed April 2022.
4. U.S. Department of Health and Human Services Indian Health Service. About Indian Health Service. Available at <https://www.ihs.gov/aboutihs/>. Accessed April 2022.
5. The Economist. How do Native Americans get health care? The Economist explains (2021). Available at: <https://www.economist.com/the-economist-explains/2021/04/26/how-do-native-americans-get-health-care>. Accessed April 2022.
6. Indian Health Service. Disparities (2019). Available at: <https://www.ihs.gov/newsroom/factsheets/disparities/>. Accessed March 2022.
7. Bureau of Indian Affairs. Frequently Asked Questions. Available at: <https://www.bia.gov/frequently-asked-questions>. Accessed March 2022.
8. Indian Health Service. Factsheet about Indian Health Service (2017). Available at: <https://www.ihs.gov/newsroom/factsheets/quicklook/>. Accessed April 2022.
9. Medicaid and CHIP Payment and Access Commission. MACPAC Analysis of the 2014-2015 Nationwide Adult Medicaid Consumer Assessment of Healthcare Providers and Systems (NAM-CAHPS) Survey. <https://www.medicaid.gov/medicaid/quality-of-care/quality-of-care-performance-measurement/nationwide-adult-medicaid-consumer-assessment-of-healthcare-providers-and-systems/index.html>. Accessed April 2022.
10. Artiga S, Arguello R, Duckett P (Kaiser Family Foundation). Health Coverage and Care for American Indians and Alaska Natives (2013). Available at: <https://www.kff.org/report-section/health-coverage-and-care-for-american-indians-and-alaska-natives-issue-brief/>. Accessed April 2022.
11. National Indian Health Board. An Overview of the Indian Health System (2016). Available at: <https://www.nihb.org/docs/04222017/Overview%20of%20the%20Indian%20Health%20System%20REVISED%2011.17.16.pdf>. Accessed April 2022.
12. U.S. Government Accountability Office (GAO). Indian Health Service. Health Care Services Are Not Always Available to Native Americans (2005). Available at: <https://www.gao.gov/assets/gao-05-789.pdf>. Accessed June 2022.
13. Walker M (The New York Times). Pandemic Highlights Deep-Rooted Problems in Indian Health Service (2020). Available at: <https://www.nytimes.com/2020/09/29/us/politics/coronavirus-indian-health-service.html>. Accessed April 2022.
14. U.S. Census Bureau. 2020 Census Illuminates Racial and Ethnic Composition of the Country. Available at: <https://www.census.gov/library/stories/2021/08/improved-race-ethnicity-measures-reveal-united-states-population-much-more-multiracial.html>. Accessed March 2022.
15. University of Alaska. Federal Indian Law for Alaska Tribes. Alaska Native Claims Settlement Act (ANCSA) 1971. Available at: https://www.uaf.edu/tribal/112/unit_3/alaskanativeclaimssettlementactanca1971.php. Accessed March 2022.
16. U.S. Department of Health and Human Services. Profile: American Indian/Alaska Native (2022). Available at: <https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=3&lvlid=62>. Accessed March 2022.
17. National Conference of State Legislatures. State Recognition of American Indian Tribes (2016). Available at: <https://www.ncsl.org/legislators-staff/legislators/quad-caucus/state-recognition-of-american-indian-tribes.aspx>. Accessed March 2022.
18. U.S. Census Bureau. Native North American Languages Spoken at Home in the United States and Puerto Rico: 2006–2010 (2011). Available at: <https://www2.census.gov/library/publications/2011/acs/acsbr10-10.pdf>. Accessed March 2022.

19. U.S. Department of the Interior. Tribal Enrollment Process (2022). Available at: <https://www.doi.gov/tribes/enrollment#:~:text=The%20tribes%20establish%20membership%20criteria,traditions%2C%20language%20and%20tribal%20blood>. Accessed March 2022.
20. U.S. Department of the Interior, Indian Affairs. Division of Tribal Government Services: Tribal Enrollment. Available at: <https://www.bia.gov/bia/ois/tgs>. Accessed March 2022.
21. U.S. Department of Health and Human Services. Indian Health Service Hospitals: Longstanding Challenges Warrant Focused Attention to Support Quality Care (2016). Available at: <https://oig.hhs.gov/oei/reports/oei-06-14-00011.pdf>. Accessed July 2022.
22. Urban Indian Health Commission and the Robert Wood Johnson Foundation. Invisible Tribes: Urban Indians and Their Health in a Changing World (2009). Available at: http://www.uihi.org/wp-content/uploads/2009/09/UIHC_Report_FINAL.pdf. Accessed April 2022.
23. Indian Health Service. Office of Urban Indian Health Programs. Available at: <https://www.ihs.gov/urban/>. Accessed June 2022.
24. Indian Health Service. IHS Announces the 4-in-1 Grant Opportunity to Enhance Health Services in Urban Areas (2016). Available at: <https://www.ihs.gov/newsroom/ihs-blog/february2016/ihs-announces-the-4-in-1-grant-opportunity-to-enhance-health-services-in-urban-areas/>. Accessed June 2022.
25. Robert Wood Johnson Foundation. Actualizing Health Care Reform for Urban Indians (2011). Available at: <http://www.uihi.org/wp-content/uploads/2011/06/Actualizing-Health-Care-Reform-for-Urban-Indians-Report.pdf>. Accessed June 2022.
26. Centers for Medicare & Medicaid Services (CMS). 10 Important Facts About the Indian Health Service and Health Insurance: Why Your Indian Health Benefits May Not Be Enough (2016). Available at: <https://www.cms.gov/Outreach-and-Education/American-Indian-Alaska-Native/AIAN/Downloads/10-Important-Facts-About-IHS-and-Health-Care-.pdf>. Accessed April 2022.
27. Medicaid and CHIP Payment and Access Commission. Medicaid's Role in Health Care for American Indians and Alaska Natives (2021). Available at: <https://www.macpac.gov/wp-content/uploads/2021/02/Medicoids-Role-in-Health-Care-for-American-Indians-and-Alaska-Natives.pdf>. Accessed April 2022.
28. Warne D, Frizzell LB. American Indian health Policy: Historical Trends and Contemporary Issues. *Am J Public Health*. 2014;104 Suppl 3:S263-267.
29. Department of Health and Human Services. Fiscal Year 2021, Indian Health Service. Available at: https://www.ihs.gov/sites/budgetformulation/themes/responsive2017/display_objects/documents/FY_2021_Final_CJ-IHS.pdf. Accessed June 2022.
30. Strommer GD, Roels SK, CP M. Tribal Sovereign Authority and Self-Regulation of Health Care Services: The Legal Framework and the Swinomish Tribe's Dental Health Program (2019). Available at: <https://www.tribalselfgov.org/wp-content/uploads/2018/05/1-24-18-Article-Tribal-Self-Regulation-of-Health-Care-Final-as-Submitted-TAE-edits.pdf>. Accessed April 2022.
31. Walker M (The New York Times). Fed Up With Deaths, Native Americans Want to Run Their Own Health Care (2021). Available at: <https://www.nytimes.com/2019/10/15/us/politics/native-americans-health-care.html>. Accessed April 2022.
32. Bylander J. Designing A Health System That Works For The Tribe. *Health Aff (Millwood)*. 2017;36(4):592-595.
33. Wakefield M. Federally Qualified Health Centers and Related Primary Care Workforce Issues. *JAMA*. 2021;325(12):1145-1146.
34. U.S. Health and Human Services (HRSA). Table 3B: Demographic Characteristics (2020). Available at: <https://data.hrsa.gov/tools/data-reporting/program-data/national/table?tableName=3B&year=2020>. Accessed April 2022.
35. Indian Health Service. Frequently Asked Questions (FAQs). Available at: <https://www.ihs.gov/prc/frequently-asked-questions-faq-s/>. Accessed June 2022.

36. Department of Health and Human Services. Office of Health Policy. Health Insurance Coverage and Access to Care for American Indians and Alaska Natives: Current Trends and Key Challenges (2021). Available at: <https://aspe.hhs.gov/sites/default/files/2021-07/aspe-aian-health-insurance-coverage-ib.pdf>. Accessed April 2022.
37. Haley J, Kenney GM (The Urban Institute). Uninsured Veterans and Family Members: Who Are They and Where Do They Live? (2012) Available at: <https://www.urban.org/sites/default/files/publication/25446/412577-Uninsured-Veterans-and-Family-Members-Who-Are-They-and-Where-Do-They-Live-.PDF>. Accessed April 2022.
38. United Service Organizations. A History of Military Service: Native Americans in the U.S. Military Yesterday and Today (2021). Available at: <https://www.uso.org/stories/2914-a-history-of-military-service-native-americans-in-the-u-s-military-yesterday-and-today#:~:text=Since%20September%2011%2C%20almost%2019,14%25%20of%20all%20other%20ethnicities>. Accessed April 2022.
39. U.S. Government Accountability Office (GAO). VA and Indian Health Service: Actions Needed to Strengthen Oversight and Coordination of Health Care for American Indian and Alaska Native Veterans (2019). Available at: <https://www.gao.gov/products/gao-19-291>. Accessed April 2022.
40. Kramer BJ, Wang M, Jouldjian S, Lee ML, Finke B, Saliba D. Veterans Health Administration and Indian Health Service: Healthcare Utilization by Indian Health Service Enrollees. *Med Care*. 2009;47(6):670-676.
41. White House Archives. The Affordable Care Act Helps American Indians and Alaska Native (2015). Available at: https://obamawhitehouse.archives.gov/sites/default/files/docs/the_aca_helps_ai_an.pdf. Accessed April 2022.
42. Brennan N (The News Tribune). Biden Strengthens Law Credited with Helping 300,000 Uninsured American Indians, Alaska Natives (2022). Available at <https://www.thenewstribune.com/news/state/washington/article260176025.html#storylink=cpy>. Accessed April 2022.
43. Indian Health Service. Indian Health Service: Summary of Recruitment and Retention Challenges (2017). Available at: https://www.ihs.gov/sites/newsroom/themes/responsive2017/display_objects/documents/2016_Letters/Enclosure2_IHSSummarySheet_WorkforceChallenges.pdf. Accessed April 2022.
44. Indian Health Service. Our Employees. Available at: [https://www.ihs.gov/aboutihs/ouremployees/#:~:text=We%20are%20staffed%20by%20approximately,Services%20\(USPHS\)%20Commissioned%20Officers](https://www.ihs.gov/aboutihs/ouremployees/#:~:text=We%20are%20staffed%20by%20approximately,Services%20(USPHS)%20Commissioned%20Officers). Accessed April 2022.
45. Indian Health Service. IHS Profile (2020). Available at: <https://www.ihs.gov/newsroom/factsheets/ihsprofile/>. Accessed April 2022.
46. Indian Health Service. Indian Preference. Available at: <https://www.ihs.gov/eoo/indianpreference/>. Accessed April 2022.
47. U.S. Government Publishing Office. Reexamining the Substandard Quality of Indian Health Care in the Great Plains. Hearing before the Committee on Indian Affairs (2016). Available at: <https://www.govinfo.gov/content/pkg/CHRG-114shrg21662/html/CHRG-114shrg21662.htm>. Accessed April 2022.
48. Akee R, Reber S (The Brookings Institute). American Indians and Alaska Natives Are Dying From COVID-19 at Shocking Rates (2022). Available at: <https://www.brookings.edu/research/american-indians-and-alaska-natives-are-dying-of-covid-19-at-shocking-rates/>. Accessed April 2022.
49. Joe JR, Swift J, Young RS. The Rationing of Healthcare and Health Disparity for the American Indians/Alaska Native (2002). Available at: <https://www.ncbi.nlm.nih.gov/books/NBK220367/>. Accessed June 2022.
50. Wenger H, Henderson-Frost J. Can Indian Health Service Referrals for Nonemergent Care Be Allocated Equitably? *AMA Journal of Ethics*. 2021;23(3):215-222.
51. U.S. Government Accountability Office (GAO). Indian Health Service: Agency Faces Ongoing Challenges Filling Provider Vacancies (2018). Available at: <https://www.gao.gov/products/gao-18-580>. Accessed April 2022.
52. Gilbert B (Business Insider). Some Nurses are Getting Paid More Than Doctors during a Nationwide Nurse Shortage and Another COVID Surge (2021). Available at: <https://www.businessinsider.com/some-nurses-paid-more-than-doctors-hospital-shortage-covid-surge-2021-8>. Accessed November 2021.

53. Jamison M, Kirk R, Koyama I, M L, Simonelli IS (Cronkite News). Travel Nurses, Staffing Industry Pushed to the Limits by COVID (2021). Available at: <https://cronkitenews.azpbs.org/2021/04/28/travel-nurses-staffing-industry-pushed-to-the-limits-by-covid/>. Accessed September 2021
54. Weaver C, Frosch D, Schwartz L (The Wall Street Journal). The U.S. Gave Troubled Doctors a Second Chance. Patients Paid the Price (2019). Available at: <https://www.wsj.com/articles/the-u-s-gave-troubled-doctors-a-second-chance-patients-paid-the-price-11574439222>. Accessed July 2022.
55. Association of American Medical Colleges (AAMC). Table B5. Number of Active MD Residents, by Race/Ethnicity (Alone or In Combination) and GME Specialty New section 2019-20 Active Residents. Available at: <https://www.aamc.org/data-reports/students-residents/interactive-data/report-residents/2020/table-b5-md-residents-race-ethnicity-and-specialty>. Accessed April 2022.
56. American Association of Medical Colleges. Diversity in Medicine. Figure 18. Percentage of All Active Physician by Race/Ethnicity, 2018. Available at: <https://www.aamc.org/data-reports/workforce/interactive-data/figure-18-percentage-all-active-physicians-race/ethnicity-2018>. Accessed June 2022.
57. U.S. Department of Health and Human Services. 2018 National Sample Survey of Registered Nurses. Brief Summary of Results. Available at: <https://bhw.hrsa.gov/sites/default/files/bureau-health-workforce/data-research/nssrn-summary-report.pdf>. Accessed June 2022.
58. Campaign for Action. Newly Released Survey Data Show Nurses More Diverse, Better Educated (2020). Available at: <https://campaignforaction.org/newly-released-survey-data-show-nurses-more-diverse-better-educated/>. Accessed April 2022.
59. Forrest LL, Leitner BP, Vasquez Guzman CE, Brodt E, Odonkor CA. Representation of American Indian and Alaska Native Individuals in Academic Medical Training. *JAMA Netw Open*. 2022;5(1):e2143398.
60. Frogner B, Mroz T. Unintended Consequences of Academic Inflation. Available at: <https://familymedicine.uw.edu/chws/studies/unintended-consequences-of-academic-inflation/>. Accessed July 2022.
61. Skillman SM, Dahal A, Frogner BK, Stubbs BA. Leveraging Data to Monitor the Allied Health Workforce: National Supply Estimates Using Different Data Sources (2016). Available at: https://familymedicine.uw.edu/chws/wp-content/uploads/sites/5/2017/01/leveraging_data_allied_health_supply_estimates_fr_dec_2016_skillman.pdf. Accessed June 2022. 2016.
62. Nahian A, Jouk N. Cultural Competence In Caring For American Indians and Alaska Natives. In: Treasure Island (FL): StatPearls Publishing; 2022.
63. Beasley C, Jones-Locklear J, Jacobs MA. Cultural Competence with American Indian Clients: Workforce and Personal Development. *N C Med J*. 2021;82(6):423-426.
64. Rural Health Information Hub. Recruitment and Retention for Rural Health Facilities (2022). Available at: <https://www.ruralhealthinfo.org/topics/rural-health-recruitment-retention>. Accessed June 2022.
65. Health Resources & Services Administration (HRSA). Improving Access to Care in Underserved Rural Communities (2021). Available at: <https://www.hrsa.gov/sites/default/files/hrsa/advisory-committees/primarycare-dentist/reports/actpcmd-18th-report.pdf>. Accessed June 2022.
66. Office of the Assistant Secretary for Planning and Evaluation. Workforce Composition, Development, and Distribution (2018). Available at: <https://aspe.hhs.gov/index.php/topics/public-health/federal-programs-policies-improving-access-quality-health-care-services-underserved-areas/workforce-composition-development-distribution>. Accessed June 2022.
67. Indian Health Service. IHS Scholarship Programs (Sections 103 and 104). Available at: <https://www.ihs.gov/dhps/programperformancedata/scholarship/>. Accessed April 2022.
68. Indian Health Service. IHS Scholarship Program. Available at: <https://www.ihs.gov/scholarship/>. Accessed April 2022.
69. Indian Health Service. IHS Loan Repayment Program (LRP). Available at: <https://www.ihs.gov/dhps/programperformancedata/lrp/>. Accessed April 2022.

70. Northeastern State University. American Indian Medicine & Health Related Scholarships (2022). Available at: <https://offices.nsuok.edu/centerfortribalstudies/Scholarships/ScienceHealth/Medicine.aspx>. Accessed April 2022.
71. Association of American Indian Physicians. Scholarships (2020). Available at: <https://www.aaip.org/programs/student-programs/scholarships-internships-fellowships/scholarships/>. Accessed April 2022.
72. Bill & Melinda Gates Foundation. Gates Millennium Scholars (GMS) Program (2022). Available at: <https://gmsp.org/>. Accessed April 2022.
73. Triangle Community Foundation. North Carolina American Indian Fund Scholarship (2022). Available at: <https://trianglecf.org/award/north-carolina-american-indian-fund-scholarship/>. Accessed April 2022.
74. Udall Foundation. Udall Undergraduate Scholarship (2022). Available at: <https://www.udall.gov/OurPrograms/Scholarship/Scholarship.aspx>. Accessed April 2022.
75. Sanford Health. Bemidji State University's Niganawenimaanaanig Program Awarded New Grant (2020). Available at: <https://bemidjino.com/bsus-niganawenimaanaanig-program-receives-additional-grant/>. Accessed April 2022.
76. Congressional Research Service. Federal Student Loan Forgiveness and Loan Repayment Programs (2016). Available at: <https://www.ronjohnson.senate.gov/services/files/2371b0a2-838c-4f0e-a98d-eaefd74e5e07>. Accessed June 2022.
77. Schwartz MR, Patterson DG, McCarty RL. State Incentive Programs that Encourage Allied Health Professionals to Provide Care for Rural and Underserved Populations (2019). Available at: <https://depts.washington.edu/fammed/chws/wp-content/uploads/sites/5/2019/12/State-Incentive-Programs-Allied-Health-FR-2019.pdf>. Accessed June 2022.
78. Office of the Assistant Secretary for Planning and Evaluation. Indian Health Service Programs—A Retention Analysis (2018). Available at: <https://aspe.hhs.gov/reports/indian-health-service-programs-retention-analysis>. Accessed June 2022.
79. Snyder CR, Frogner BK, Skillman SM. Facilitating Racial and Ethnic Diversity in the Health Workforce. *J Allied Health*. 2018;47(1):58-65.
80. Pradhan R (Kaiser Family Foundation). 'The Danger Is Still There' ¶ As Omicron Lurks, Native Americans Are Wary of Boosters (2022). Available at: <https://khn.org/news/article/native-americans-covid-vaccine-booster-numbers-lag/>. Accessed April 2022.
81. Silberner J. Covid-19: How Native Americans Led the Way in the US Vaccination Effort. *BMJ*. 2021;374:n2168.
82. Syed ST, Gerber BS, Sharp LK. Traveling Towards Disease: Transportation Barriers to Health Care Access. *J Community Health*. 2013;38(5):976-993.
83. Frerichs L, Bell R, Lich KH, Reuland D, Warne D. Regional Differences In Coverage Among American Indians And Alaska Natives Before And After The ACA. *Health Aff (Millwood)*. 2019;38(9):1542-1549.
84. Salsberg E, Richwine C, Westergaard S, et al. Estimation and Comparison of Current and Future Racial/Ethnic Representation in the US Health Care Workforce. *JAMA Netw Open*. 2021;4(3):e213789.
85. National Indian Health Board. Tribal Oral Health Initiative. Available at: [National Indian Health Board | Tribal Oral Health Initiative \(nihb.org\)](https://nihb.org/). Accessed July 2022.
86. Friedman JR, Hansen H. Evaluation of Increases in Drug Overdose Mortality Rates in the US by Race and Ethnicity Before and During the COVID-19 Pandemic. *JAMA Psychiatry*. 2022;79(4):379-381.

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