



EXECUTIVE SUMMARY

American Indian and Alaska Native Communities Face a 'Disproportionate Burden of Oral Disease'

SUGGESTED CITATION:

CareQuest Institute for Oral Health. *Executive Summary: American Indian and Alaska Native Communities Face a 'Disproportionate Burden of Oral Disease'*. Boston, MA: March 2023. DOI:10.35565/CQI.2023.2002

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Health and Oral Health Disparities in the American Indian/Alaska Native Community

Individuals in American Indian/Alaska Native (AI/AN) communities experience a disproportionate burden of oral disease compared to non-AI/AN communities. The prevalence of early childhood caries (tooth decay) is three times higher for AI/AN children than it is for white children.¹ Further, AI/AN adults are twice as likely as the overall US population to have untreated decay, and 83% of AI/AN adults report tooth loss compared to 66% of the overall US population.²

Health disparities within AI/AN communities can be traced back to the arrival of European settlers in the 15th century.³ Atrocities inflicted upon the AI/AN population by the European colonizers — including genocide, intentional and unintentional introduction of infectious diseases, and warfare — decreased the AI/AN population from approximately 18 million to 200,000 by the late 19th century.^{3,4} In addition to these sources of historical and intergenerational trauma, AI/AN communities are currently exposed to “poor-quality, high-calorie foods with inadequate nutritional value” through the US Department of Agriculture’s Food Distribution on Indian Reservations program.³ Many AI/AN reservations overlap with food deserts in which healthy and affordable foods are inaccessible, contributing to poor overall and oral health.⁵

People living on trust land (defined as land controlled by AI/AN entities) are more likely to reside in rural areas with fewer dental providers to serve their population than those who live in metropolitan areas.⁶ According to the American Dental Education Association, the number of AI/AN students applying to dental school has decreased dramatically over the past decade, from a record high of 92 in 2006 to a record low within the past 20 years of 16 AI/AN dental school applicants in 2019 and 19 applicants in 2021.⁷⁺ This workforce problem is common across reservations, resulting in too few dental providers to serve village and reservation populations adequately, exacerbating the prevalence and severity of oral disease.⁸

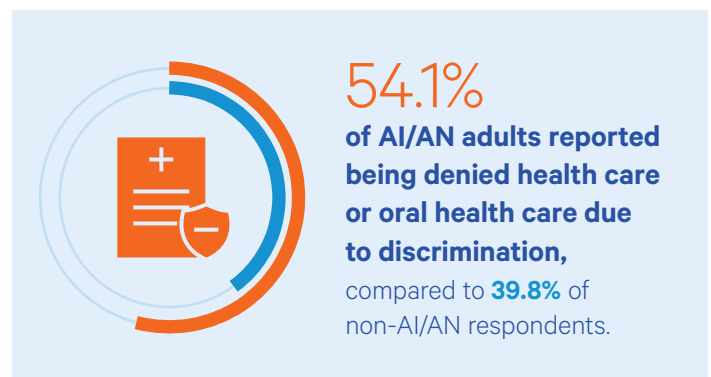
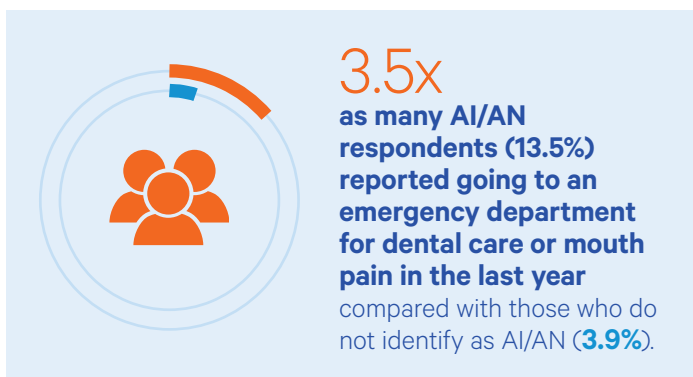
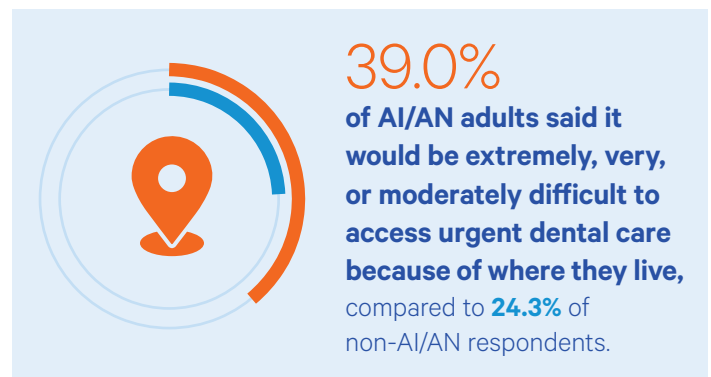
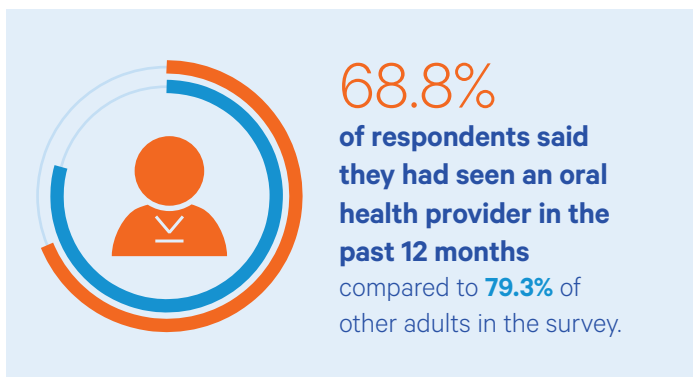
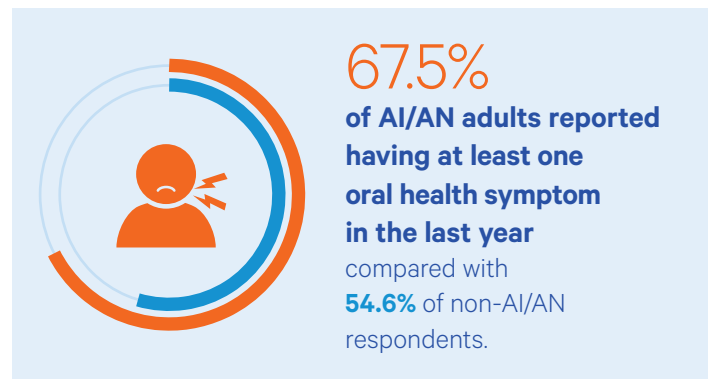
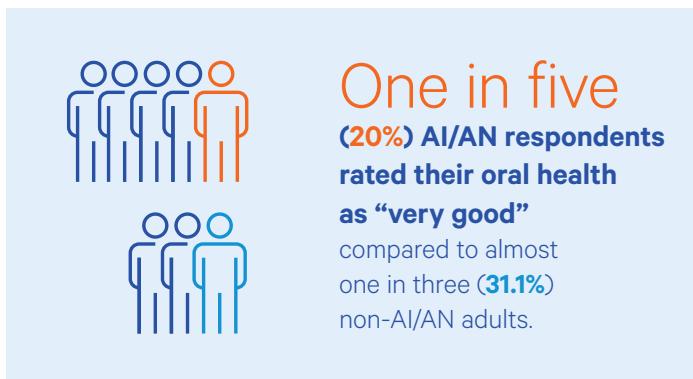
Solutions for the oral health disparities faced by AI/AN communities must be grounded in diversity, equity, inclusion, and justice and centered on communities’ unique needs. Research improves the understanding of the role of discrimination and lack of access to care in oral health disparities in AI/AN communities. It is also crucial to examine the effects of community-based interventions to improve the oral health of AI/AN individuals. Organizations and collaboratives such as the Society of American Indian Dentists (SAID), National Indian Health Board (NIHB), and the Native Oral Health Network (NOHN) help drive increased representation of AI/AN professionals in the dental profession. Through organizations such as the American Dental Therapy Association and National Indian Health Board, the expansion of dental health aide and dental therapy programs has increased the number of AI/AN dental professionals providing oral health care in tribal and Alaska Native communities. An increased emphasis on grant funding within these communities shines a spotlight on the benefits of such grants. Multifactorial solutions promise to improve oral health of and access to care for AI/AN communities in order to create a more accessible, equitable, and integrated health care system.

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+ In earlier versions of this report, we erroneously reported the number of AI/AN dental school applicants in 2021 as eight. This number (eight) reflects the number of first-time, first-year dental school enrollees identifying as AI/AN in 2021. This reflects a decline from 35 enrollees in 2006 and a slight increase from 5 in 2019. We have corrected the text to reflect that there were 19 AI/AN dental school applicants in 2021.

Nationally Representative Findings Regarding Oral Health in AI/AN Communities

The annual [State of Oral Health Equity in America](#) survey assesses adult consumers' attitudes, knowledge, and experiences with oral and overall health care. In the 2022 survey, an additional sample of AI/AN individuals was recruited to understand better the self-reported oral health of AI/AN respondents and barriers to oral health care. Results of this study found, in part:



This survey provides evidence of the barriers faced by AI/AN individuals in receiving adequate dental care, including discrimination and geographic location. The survey also echoes prior research showing poorer oral health in AI/AN communities compared to non-AI/AN communities.^{1,2,9} Efforts are underway through community organizations and research interventions to improve the oral health of AI/AN individuals.

Efforts Currently Underway to Improve Oral Health in AI/AN Communities

- The **Society of Indian Dentists (SAID)** was founded in 1990 by Dr. George Blue Spruce, Jr., the first American Indian dentist in the United States.¹⁰ AI/AN individuals are considered underrepresented minorities in the field of dentistry, with only 0.2% of the active US dentists in 2012 identifying as AI/AN.¹¹ SAID promotes oral health in American Indian communities, encourages AI/AN youth to pursue careers in the profession of dentistry, provides role-model leadership, and promotes and supports the unique concerns of AI/AN dentists.
- The **National Indian Health Board (NIHB)** is a nonprofit organization serving all federally recognized tribes in the areas of health care and public health. In 2016, NIHB launched the Tribal Oral Health Initiative, a hub for tribal dental therapy information, resources, and technical assistance. Beginning in 2018, NIHB cochaired the National Partnership for Dental Therapy to elevate the tribal experience with dental therapy and advocate for equity-based solutions to tribal oral health challenges like provider shortages, disproportionate rates of tooth decay, and lack of culturally competent care.
- The **Native Oral Health Network (NOHN)**, established in 2017, is a program administered through the Southern Plains Tribal Health Board (SPTHB). NOHN membership includes tribes, tribal nations, and other public health partners that connect around the vision of health, wellness, and quality of life through oral health advancement. With momentum and capacity building since 2017, NOHN now consists of more than 160 members who bring more than 31 unique areas of expertise. NOHN has collaboratively developed resources and partnerships that have strengthened efforts to improve the oral health of AI/AN communities.

Dental therapists are licensed oral health providers who work under the supervision of a dentist and provide routine care, including examinations and fillings. The first dental therapy program in the US was started by AI/AN leaders in order to address the chronic shortages of dentists in AI/AN communities. Currently, dental therapists are authorized to provide care in 13 US states, and more than a dozen states and tribal governments are looking into authorizing dental therapists to provide care in their communities.¹²

“I looked behind me, and I saw very few American Indians going through to become doctored health professionals. And so, I thought that I would think very seriously about an organization that would help promote that effort.”

— Dr. George Blue Spruce, Jr.
Founder, Society of American Indian Dentists (SAID)

- The **Southern Plains Tribal Health Board (SPTHB)**, established in 1972, is a nonprofit organization that provides a unified voice for federally recognized American Indian tribes in the Oklahoma City Indian Health Service Area. The SPTHB has given over \$80 million in grant dollars back to tribal communities through community health profiles, emergency management plans, data collection, education, substance abuse and suicide prevention, as well as supporting tribal public health initiatives across the United States.
- The **Indian Health Service (IHS) Dental Support Centers** program aims to combine IHS and tribal resources and infrastructure to address broad challenges and opportunities associated with preventive and clinical dental programs. Centers also rigorously measure and evaluate their work to demonstrably improve dental health outcomes through the technical assistance and services they provide.
- The **Center for Native Oral Health Research (CNOHR)** was established at the University of Colorado, Denver, in 2008 and is funded through the National Institutes of Health/National Institute of Dental and Craniofacial Research. Their research focuses on developing community-based strategies to prevent infectious oral diseases in AI/AN communities (such as dental caries or tooth decay) that are both effective and culturally acceptable within these communities.¹³



Investing in Outreach

CareQuest Institute for Oral Health is a national nonprofit that leverages grantmaking, among other areas of activation, to drive systems change in ways that are informed by, and in partnership with, historically marginalized communities. For the past eight years, CareQuest Institute has invested in AI/AN-driven solutions to respond to the historic and pervasive inequities disproportionately affecting the oral health of AI/AN communities. These investments have included work with grassroots-based nonprofits — such as Native American Connections, based in Arizona — to understand what specific needs exist for low-income AI/AN communities to increase the engagement of AI/AN communities in local and state policy advocacy efforts.

CareQuest Institute also has leveraged grantmaking to strengthen and diversify the oral health workforce to be more representative of and better serve AI/AN communities, a proven benefit of racially concordant patient-provider relationships. These efforts include grant funding to advance community-driven policies and practices expanding culturally

meaningful dental provider roles, such as AI/AN dental therapists. Fundamental to these efforts is ensuring that AI/AN communities are building sustainable oral and systemic health systems that shape health, economic, and social policies to reduce and eliminate inequities.

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References

1. Kathy R. Phipps and Timothy L. Ricks, "The Oral Health of American Indian and Alaska Native Children Aged 1–5 years: Results of the 2014 IHS Oral Health Survey," *Indian Health Service Data Brief*, April 2015, accessed January 26, 2023, https://www.ihs.gov/doh/documents/ihs_data_brief_1-5_year-old.pdf.
2. Kathy R. Phipps and Timothy L. Ricks, "The Oral Health of American Indian and Alaska Native Adult Dental Patients: Results of the 2015 IHS Oral Health Survey," *Indian Health Service Data Brief*, March 2016, accessed January 26, 2023, https://www.ihs.gov/DOH/documents/IHS_Data_Brief_March_2016_Oral_Health%20Survey_35_plus.pdf.
3. Donald Warne and Denise Lajimodiere, "American Indian Health Disparities: Psychosocial Influences," *Social and Personality Psychology Compass* 9, no. 10 (2015): 567–579.
4. Russell Thornton, *American Indian Holocaust and Survival: A Population History Since 1492*, vol. 186 (University of Oklahoma Press, 1987).
5. Anne Gordon and Vanessa Oddo, *Addressing Child Hunger and Obesity in Indian Country: Report to Congress* (Mathematica Policy Research, January 2012), accessed January 26, 2023, <https://fns-prod.azureedge.us/sites/default/files/IndianCountry.pdf>.
6. Rebecca Singer Cohen and Julie Stitzel, "Improving Dental Care Access in Rural America," Pew, accessed January 26, 2023, <http://pew.org/1NZuw7t>.
7. American Dental Education Association, "2021 Applicants and First-time, First-year Enrollees," June 2022, accessed January 26, 2023, <https://www.adea.org/data/students/Applicants-2021-Entering-Class/>.
8. Deborah Bassett, Ursula Tsosie, and Sweetwater Nannauck, "Our Culture Is Medicine: Perspectives of Native Healers on Posttrauma Recovery among American Indian and Alaska Native Patients," *The Permanente Journal* 16, no. 1 (2012): 19.
9. Kathy R. Phipps and Timothy L. Ricks, "The Oral Health of American Indian and Alaska Native Children Aged 6–9 years: Results of the 2016–2017 IHS Oral Health Survey," *Indian Health Service Data Brief*, April 2017, accessed January 26, 2023, <https://www.ihs.gov/doh/documents/Data%20Brief%20IHS%206-9%20Year%20Olds%2003-30-2017.pdf>.
10. Harvard Medical School and Harvard School of Dental Medicine, "George Blue Spruce Jr., DDS, MPH (First American Indian Dentist)," accessed January 26, 2023, <https://perspectivesofchange.hms.harvard.edu/node/118>.
11. Elizabeth Mertz, Cynthia Wides, and Paul Gates, "The American Indian and Alaska Native Dentist Workforce in the United States," *Journal of Public Health Dentistry* 77, no. 2 (2017): 125–135.
12. National Partnership for Dental Therapy, "About Dental Therapy," accessed January 26, 2023, <https://www.dentaltherapy.org/about/about-dental-therapy>.
13. Boston University Center for Research to Evaluate & Eliminate Dental Disparities, "The Center for Native Oral Health Research — University of Colorado, Denver," accessed January 26, 2023, <https://www.bu.edu/creedd/partners/cnohr/>.

CareQuest Institute for Oral Health

CareQuest Institute for Oral Health® is a national nonprofit championing a more equitable future where every person can reach their full potential through excellent health. We do this through our work in grantmaking, research, health improvement programs, policy and advocacy, and education as well as our leadership in dental benefits and innovation advancements. We collaborate with thought leaders, health care providers, patients, and local, state, and federal stakeholders to accelerate oral health care transformation and create a system designed for everyone. To learn more, visit carequest.org.

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