

# Oral Health in Indian Country Survey Analysis



National Indian Health Board  
Tribal Oral Health  
Initiative

National Indian  
Health Board



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## **Summary**

Diseases of the mouth and access to oral healthcare are critical issues for many American Indians and Alaska Natives. In fact, American Indians and Alaska Native children ages 2-5 years have an average of 6 decayed teeth, while the same age group in the U.S. population has only one decayed tooth. Half of Native Americans live in what are considered “dental shortage areas.” In the general U.S. population, there is one dentist for every 1,500 people, but in Indian Country, there is only one dentist for every 2,800 people<sup>1</sup>. Half of Native children live in an area with a shortage of dentists. Often, oral healthcare has been so under-prioritized, that people do not know just how important oral health is to overall health. The Mayo Clinic has found several links between the two; poor oral health is correlated with higher rates of heart disease, for example<sup>2</sup>.

Over the last several years, the National Indian Health Board (NIHB) has been bringing together stakeholders including Tribal leaders, Tribal health directors, Area Indian Health Boards, Tribal Epidemiology Centers, funders, and public health leaders to explore solutions and develop recommendations to address oral health disparities and the lack of access to oral health treatment and prevention services in Indian Country, especially as relates to the dental therapy model. It is no secret that oral health care access is one of the greatest health challenges Tribal communities face. However, in order to get a clearer picture of these challenges, NIHB developed an Indian Country Oral Health Survey in 2016.

The NIHB developed, distributed, and analyzed the results of the Oral Health Survey in 2016 in order to: 1.) understand the extent of some oral healthcare disparities in Indian Country, and 2.) gauge Tribal familiarity and interest in the dental therapist model. Dental therapists (DT) are midlevel providers that are able to perform certain common dental procedures, with a focus on preventative and routine care. DTs have been practicing in Alaska Native communities under the Community Health Aide Program (CHAP) since 2004. DT programs also operate in Tribal communities in the states of Washington and Oregon.

The 2016 Oral Health Survey was the second time that NIHB had collected community level data on oral health, however the 2016 survey had a much larger response rate and a wider array of questions. The results of this survey will be used not only to educate Indian Country on the state of oral healthcare, but also to support advocacy and community mobilization efforts to address such disparities through a system level approach.

Overall, survey results demonstrate that there is clear need for increased access to oral

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<sup>1</sup> *The 1999 Oral Health Survey of American Indian and Alaska Native Dental Patients*. Rockville, Md: Indian Health Service, Division of Dental Services; 2002:106  
[http://dhss.alaska.gov/dph/wcfh/Documents/oralhealth/docs/Oral Health 1999 IHS Survey.pdf](http://dhss.alaska.gov/dph/wcfh/Documents/oralhealth/docs/Oral_Health_1999_IHS_Survey.pdf)

<sup>2</sup> The Mayo Clinic, “What conditions may be linked to oral health?”  
[http://www.mayoclinic.org/healthylifestyle/adulthealth/indepth/dental/art20047475?pg=2&\\_ga=1.187335265.810928369.1485547917](http://www.mayoclinic.org/healthylifestyle/adulthealth/indepth/dental/art20047475?pg=2&_ga=1.187335265.810928369.1485547917)

health in Indian Country—64% of survey respondents stated that they or someone they knew had had trouble receiving adequate oral healthcare services. Only 37% of respondents rated their local dental program as “satisfactory or better.” Of respondents who had heard of dental therapists, 85% responded that they would like their Tribal leaders to explore implementing a DT program as a potential solution to the oral health crisis, suggesting that the information available about DTs is making a positive impression.

The following report provides additional details about the survey and provides recommendations on next steps toward bringing more education to Indian Country about the DT model of oral health delivery as a potential solution to current access issues.

## **Methodology**

The Survey was developed using Survey Monkey and was designed to be brief in order to maximize the response rate, and was not intended to be ask questions on all aspects of oral or dental care. The final instrument had ten questions related to access to oral healthcare and dental therapy:

1. Have you (or someone you know) ever experienced difficulties in obtaining dental or oral health care services?
2. In your opinion, how important is it for you to receive dental care on a regular basis?
3. How would you rate access to oral and dental healthcare services in your Tribal community?
4. There are a number of reasons that someone may have difficulty getting dental care. Which of the following issues do you think are significant concerns in regards to oral healthcare in your Tribal community?
5. What do you think would be the single most impactful way to improve the state of oral and dental health in Indian Country? (Free Response)
6. Dental Health Aide Therapists are midlevel dental care providers similar to nurse practitioners or physician assistants in medicine. They practice under the supervision of a dentist and are able to deliver routine dental care to patients. These providers have been used in Alaska Native communities since 2004. Are you aware of the Dental Health Aide Therapist program that has been implemented in Alaska Native communities to increase access to dental care?
7. Would you encourage Tribal leaders to publicly support dental therapy (midlevel oral healthcare providers) as one solution to improving access to oral health treatment and prevention services of your Tribal community?
8. Has your Tribal government passed a resolution or public document in support of dental therapy?
9. Has your Tribal government considered incorporating dental therapists into your Tribal health system?
10. Are you interested in further outreach and education on the Dental Health Aide Therapy program?

The instrument was mixed method with some quantitative and some qualitative questions. Those quantitative questions asked for a simple “yes” or “no” response, used a Likert scale, or multiple choice. The qualitative questions were open-ended and respondents were able to answer the questions in their own words.

The NIHB e-mailed the survey to over 6,700 contacts contained within an internal list serve of people engaged in oral health activities in Indian Country. The link to the survey was also posted on the NIHB’s social media platforms, generating 829 impressions on Twitter and reaching 112 people on Facebook. The NIHB also sent periodic reminder emails to the same list serve and tweeted the link to the survey twice. The NIHB offered respondents the opportunity to win one of three \$100 Amazon gift cards as incentive for participants of the survey. In total, the NIHB received exactly 1,000 responses with 92% having fully completed the survey. The NIHB stresses that this survey was not intended to be scientific, but it does depict important components of the state of oral healthcare access in Indian Country.

People identifying as American Indians and Alaska Native made up 80% of respondents. Most of the remainder identified as White, and Native Hawaiians/Pacific Islanders, Asians, and Latinos were also represented in the survey.

Participants were given the option to identify as man (22.3%), woman (75.2%), Two-Spirit man (0.5%), Two-Spirit woman (1.5%), genderqueer (0.3%), or other (0.1%). Women and gender non-conforming individuals also made up a percent of the respondents that was demographically higher than the national population. Information on the demographics of practitioners in Tribal health systems is not available for a comparison; however, IHS employees were 72% female as of 2010<sup>3</sup>.

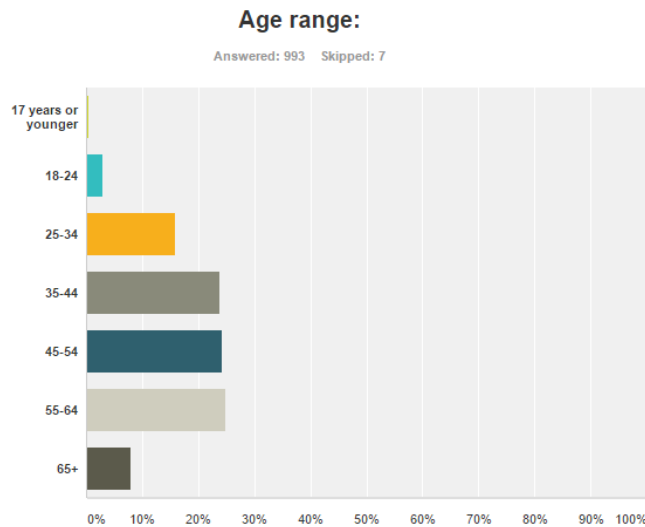


Figure 1: Age Range Breakdown

Respondents were able to identify within six different age ranges (18-24, 25-34, 35-44, 45-54, 55-64, and 65 years or older). The age distribution was fairly broad, and consistent with national demographics. However, very few respondents were younger than 25. No single age range constituted more than one quarter of survey respondents, as summarized in Figure 1.

<sup>3</sup> Office of Personnel Management, “2010 Demographic Profile of the Federal Workforce Publication.” <https://www.opm.gov/policy-data-oversight/data-analysis-documentation/federal-employment-reports/demographics/2010-demographic-profile/>

The NIHB received completed surveys from thirty-eight states and all twelve IHS Service Areas. The most represented state was Washington, which accounted for just under one quarter of responses. Arizona, California, and Oklahoma also each made up about 10% of respondents.

Responses by IHS Service Area

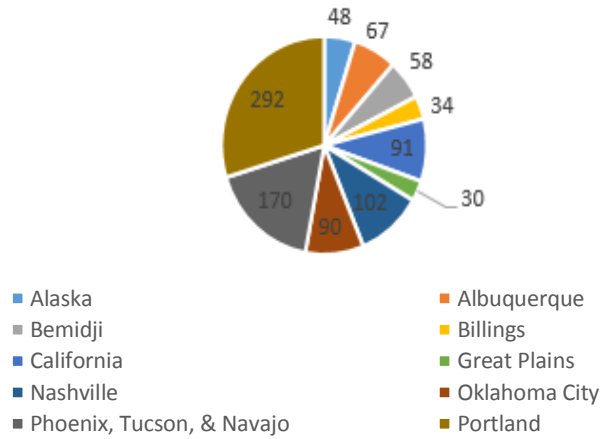


Figure 2: Responses by IHS Service Area

### **Oral Health Access Challenges**

When asked if they or someone they knew had had trouble receiving adequate oral healthcare services, 64% of respondents said “Yes.” Among men, 57% said the same, meaning a small gender gap was present in this question, with women being more likely to report that trouble had existed. Washington State, which was the state with the most responses, had 3 out of 4 respondents answer “Yes” to this question. In Arizona it was 2 out of every 3. Sixty percent in Oklahoma responded with a “Yes.” California was lower than average, with 56% of respondents reporting trouble with accessing oral healthcare services.

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***“I have not been able to see a dentist in years due to the appointment process. I could not make it to the dental office at 5 in the morning and wait five hours for an appointment on the one day of the month that they scheduled appointments.”***  
– Survey Respondent

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The question regarding access to oral healthcare was asked on a four-point Likert scale (very important/somewhat important/somewhat unimportant/unimportant) as a response framework. As Figure 3 shows, 91% of respondents believed that receiving oral healthcare “very important.” The percent was the same for all respondents as a whole and for

the AI/AN subset with little variation state to state or among different age groups. However, one in five respondents later answered that people do not receive oral healthcare services because oral health is not a priority.

**In your opinion, how important is it for you to receive dental care on a regular basis?**

Answered: 925 Skipped: 75

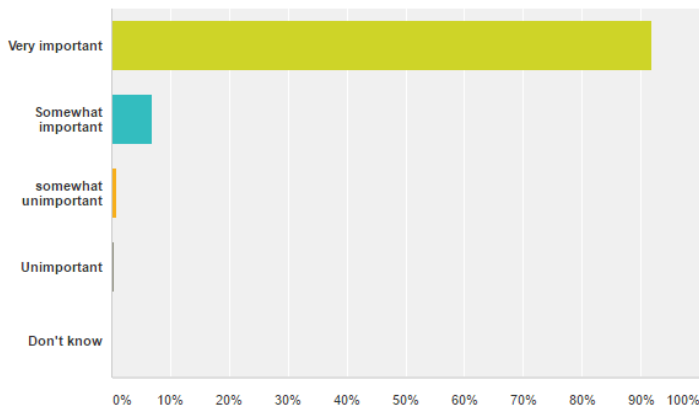


Figure 3: Importance of Dental Care

**How would you rate access to oral and dental healthcare services in your Tribal community?**

Answered: 925 Skipped: 75

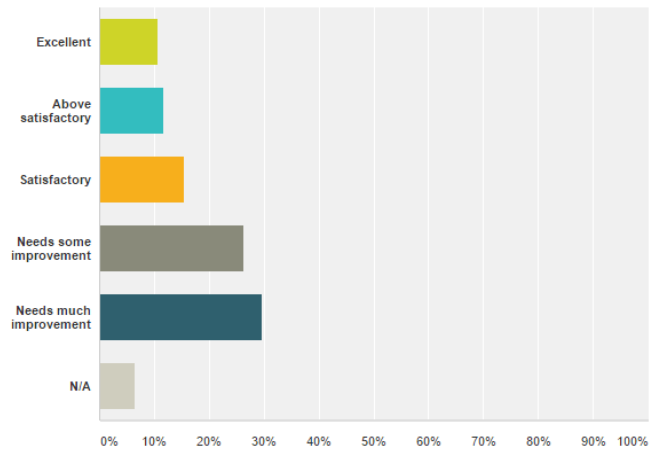


Figure 4: Dental Services Evaluation

Only 37% of respondents rated access to their local dental program as “satisfactory or better” on a 5-point Likert scale with (excellent/above satisfactory/satisfactory/needs some improvement/needs much improvement). As shown in Figure 4, 63% felt their community’s systems needed improvement. Oklahoma had the highest satisfaction rate, with 57% of respondents from the state saying the oral healthcare delivery system was satisfactory or better. Arizona and California respondents answered similarly to respondents as a whole. In Washington State, only 22% of respondents felt access to their local dental programs was satisfactory.

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***“Sometimes we have a dentist at our Tribal health center and sometimes we don't. When we don't have one, we have to travel an hour away to maybe see another one. And they are inclined to pulling teeth out instead of trying to save teeth.”***

***- Survey Respondent***

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When asked what issues prevented people from getting dental care, respondents gave as the most common answers: can't get an appointment (56%), providers are always changing, services are too expensive (38%), and needing to get a referral because the provider cannot do the needed procedure (36%), as shown in Figure 5. Other issues included: long wait times (33%), the clinic is too far away (25%), providers have a history of poor service (20%), the perception that oral health care is not important (20%), the care is not culturally competent

Answer Choices	Responses
a. Can't get an appointment	56.65% 524
b. Dental care is too expensive	38.70% 358
c. The dental clinic is too far away	25.30% 234
d. The providers are not culturally competent	13.41% 124
e. The providers are always changing	32.11% 297
f. The providers have a history of providing poor care	20.11% 186
g. The providers do not listen to me	10.49% 97
h. I go there and end up waiting for a long time	33.30% 308
i. I have to get a referral because they cannot provide the services that I actually need	36.22% 335
j. Could not leave work or school for a dentist appointment	26.05% 241
k. The perception that oral healthcare is not that important	20.00% 185
Other (please specify)	<b>Responses</b> 25.84% 239
Total Respondents: 925	

Figure 5: Issues Preventing Adequate Oral Healthcare

(13%). In California, expense (51%) was the biggest barrier. In Washington (68%), Arizona (66%), and Oklahoma (56%), it was the inability to get an appointment. Respondents could also identify other barriers, which spanned a wide range of issues. The most common was a sense that people were afraid of the dentists and that the dentists did not operate in a way that was sensitive to the patient. These responses were more or less the same across demographic and geographical lines.

In an open-ended question asking, “What do you think would be the single most impactful way to improve the state of oral and dental health in Indian Country?” respondents mostly said an emphasis on preventative care, more providers able to see more patients quickly, and replicating successful models were the best ideas to address the issue. A few people suggested greater community outreach on the part of the clinics or Tribal health departments, including reminder calls as the date for appointments booked months earlier nears. Interestingly, 23 respondents answered that implementing a dental therapy program would have the single largest impact on Tribal communities. The survey did not mention DTs until the following question.

Finally, survey respondents were asked a series of questions related to dental therapists. A full 63% of respondents had not heard of the DT model. Even in Washington State, home to the Swinomish Tribe and its DHAT program, most respondents were unfamiliar with the model.

When asked if the respondent’s Tribal government had either issued a resolution in favor of expanded DT models or actively explored implementing its own DT program, about half of respondents were unsure. Respondents answered both questions similarly, with approximately 30% having answered “No” to each question, and 20% having answered “Yes” to each.



## Analysis

The survey results underscore the lack of oral healthcare across Indian Country. When two-thirds of respondents are affected by access issues, the crisis of oral healthcare in Indian Country is clear. Responders were asked to describe their experience in their own words, and the overwhelming majority of people cited lack of providers and long wait times for appointments as the source of their lack of oral healthcare. Often, oral health services in Indian Country are based on a first-come-first-served basis, meaning the elderly and small children have to get to the clinic early and wait for hours to receive service. Many respondents also noted an inability to pay for services in a private facility if the IHS clinic was unable to see them.

Respondents were told that dental therapists “are midlevel dental care providers similar to nurse practitioners or physician assistants in medicine. They practice under the supervision of a dentist and are able to deliver routine dental care to patients. These providers have been used in Alaska Native communities since 2004.” Crucially, 85% of respondents who had heard of dental therapists responded that they would like their Tribal Leaders to explore implementing a DT program as a potential solution to the oral health crisis, suggesting that the information available about DTs made a positive impression.

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***“Mid-level dental providers...will provide so much more service & allow dentists to focus on more serious issues...I firmly believe that it's the single key change that will drastically improve all aspects of Native dental access and care.”- Survey Respondent***

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Often, DT skeptics say that the main focus on oral health should be public education campaigns. However, these campaigns are already in place in schools and health clinics nationwide. As shown by the survey results reported here, American Indians and Alaska Natives understand the need to prioritize oral health and routine brushing to prevent

problems. Access to care, whether it is in the form of long wait times, a shortage of providers, transportation issues, or financial hardship, appears to be the predominant barrier preventing Native people from receiving the oral healthcare they need. This survey shows that people are looking for solutions and may embrace innovative models that expand access.

**Would you encourage Tribal leaders to publicly support dental therapy (midlevel oral healthcare providers) as one solution to improving access to oral health treatment and prevention services of your Tribal community?**

Answered: 335 Skipped: 665

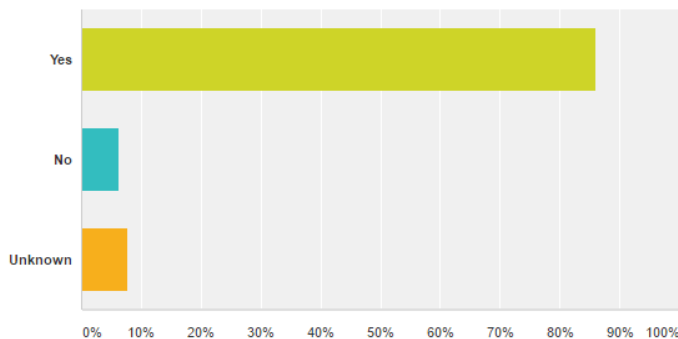


Figure 6: Support for Tribal DHAT Programs

## **Conclusion and Next Steps**

The survey attempted to gauge people's knowledge of the oral health situation in Indian Country and their support for the innovative dental therapy model. The results are encouraging on both fronts.

The problems facing oral health in Indian Country are pervasive and systemic. While education campaigns are important in showing people the importance of their oral health, this survey shows that most people in Indian Country already value healthy teeth and gums. Nevertheless, the barriers to access persist. A new delivery model is needed throughout the predominately rural Indian Country. This survey will help answer the doubters who believe that educational campaigns are the only solution to improving oral health in Indian Country.

Half of respondents were interested in learning more about the DT model's potential. Given that so many felt that dental therapists could make a positive impact on the oral health of community members and that the vast majority of responders recognized the crisis of oral healthcare in Indian Country, the NIHB is eager to work nationwide to educate Tribes on the model's success and future potential. Similarly, the NIHB aims to develop support from Tribal leadership throughout the nation in support of dental therapy expansion. The NIHB hopes to develop Tribal leader advocates for dental therapists and for addressing the oral health crisis in Indian Country. In addition to Tribal leadership, NIHB will continue to engage Tribal health directors, dentists and other medical staff to educate them on the benefits of mid-level dental care.

Tribes often pass resolutions through their Tribal Council stating their formal opinion on issues affecting Indian Country. Several Tribes and Tribal organizations have already passed Tribal Resolutions in favor of dental therapy. NIHB hopes to use this survey to generate momentum and excitement for dental therapy amongst Tribal leaders.

In summary, the survey will serve as a baseline picture for oral health access in Indian Country as NIHB works with Tribal governments to improve oral health, and therefore, the overall health of American Indians and Alaska Natives. The National Indian Health Board will utilize this data to demonstrate the need for better access to dental care and galvanize support in favor of expanding mid-level dental care in Indian Country.