

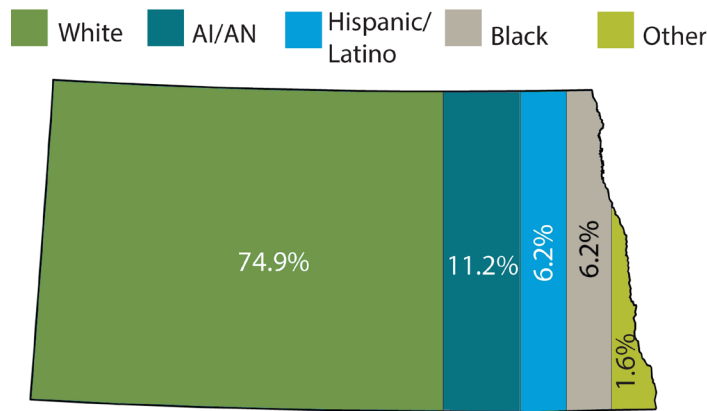


High Rates of Decay and Need for Dental Treatment Among American Indian and Alaska Native Kindergartners in North Dakota

Measuring Oral Health in North Dakota

The North Dakota Department of Health Oral Health Program works with public and Bureau of Indian Education schools throughout the state to assess pediatric oral health. During the 2018-2019 school year, 1,998 kindergartners enrolled in the 43 participating schools received a dental screening. Roughly 75% of students who were screened were white; 11.2% were American Indian/Alaska Native.

Kindergartners Screened by Race

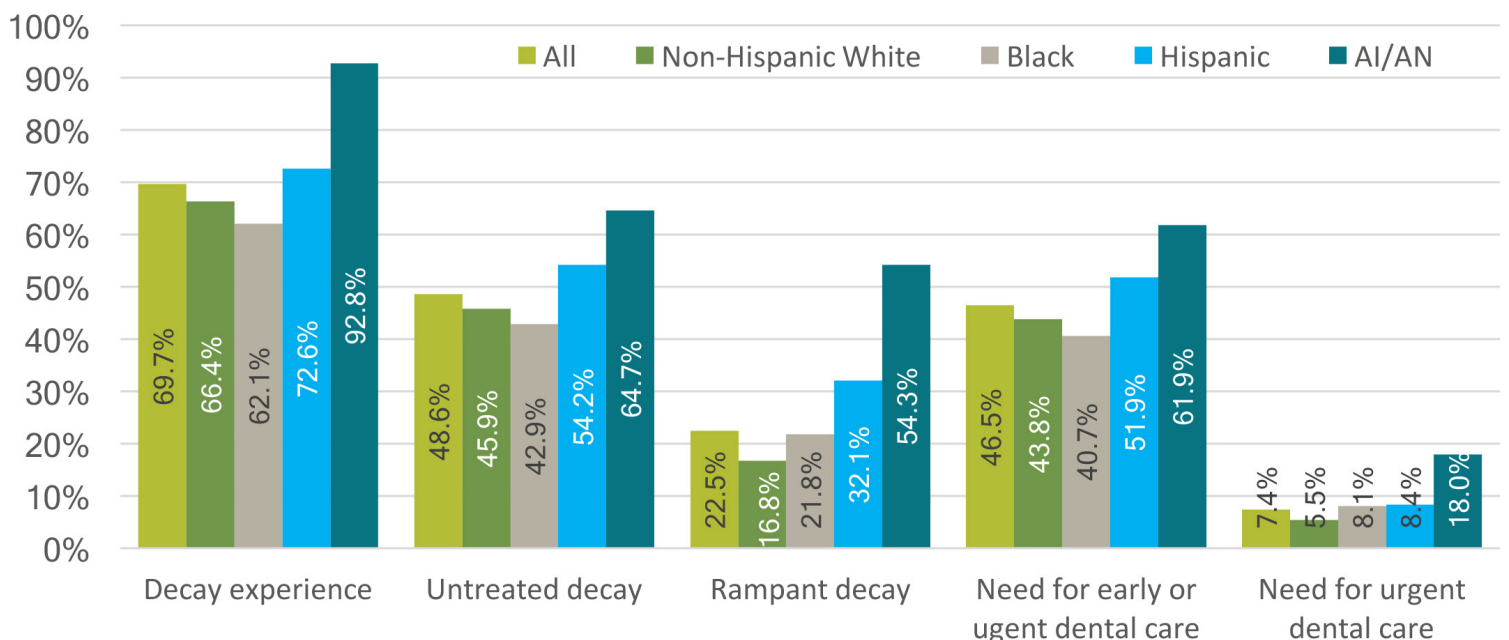


Kindergartners' Decay Experience

Compared to non-Hispanic white kindergartners, those that were of American Indian (AI)/Alaska Native (AN) descent had a significantly ($p < 0.05$) higher prevalence of:

- Decay experience
- Untreated decay
- Rampant decay
- Need of early or urgent care
- Need of urgent care

Oral Health Among North Dakota Kindergartners by Race & Ethnicity, 2018-19 School Year



Decay Experience

A majority (69.7%) of all kindergartners had decay experience. However, a significantly greater proportion of AI/AN kindergartners (92.8%, $p < 0.001$) presented with decay than did non-Hispanic white children (66.4%).

Untreated Decay

Nearly half (48.6%) of all kindergartners screened had untreated decay. However, AI/AN children had significantly higher instances of untreated decay (64.7%) than non-Hispanic white children ($p < 0.01$).

Rampant Decay

Overall, (22.5%) of all kindergartners had rampant decay (four or more decayed teeth) upon screening. Compared to non-Hispanic white children (16.8%), AI/AN (54.3%) and Hispanic children (32.1%) had a significantly higher prevalence of rampant decay ($p < 0.05$).

Need for Early or Urgent Dental Care

Overall, 46.5% of North Dakota's kindergartners needed early or urgent care. AI/AN children were significantly more likely to need dental care when compared to non-Hispanic, white children ($p < 0.05$).

Need of Urgent Dental Care

Only 7.4% of kindergartners in the state had a need of urgent care upon screening. AI/AN children had a significantly higher need for urgent dental care upon screening ($p < 0.05$) when compared to non-Hispanic, white children.

Conclusions

A majority of kindergarten students in North Dakota were reported to have decay experience (69.7%). Similarly, nearly half (48.6%) of kindergartners presented with untreated decay. The rate of untreated decay was likely related to the roughly half (46.5%) of all kindergartners who were identified as needing early or urgent dental care. There is a clear need for oral health education among new parents, and in pre-kindergarten programming. However, there is an even more significant need for outreach among AI/AN populations.

Interventions that can improve pediatric oral health among tribal populations may include:

- Fluoride varnish application in primary care and Indian Health Services (IHS) settings for children as young as 6 months.
- Medical and dental integration in family medical centers and IHS facilities ensuring oral health screens, fluoride varnish application, and dental referrals for pediatric patients.
- Oral health education for new and expecting parents to include pediatric dental referral resources.
- Partnerships with every Head Start program and Women, Infant, and Children (WIC) programs to provide oral health education and dental referral resources.
- Increase the number of pediatric and tribal dentists or the number of general dentists that can both see pediatric patients and provide culturally appropriate care.

Data

Data were provided by the North Dakota Department of Health Oral Health Program, from their Basic Screening Survey (BSS) of North Dakota kindergartners; approved by the North Dakota Department of Health IRB and funded by the Centers for Disease Control and Prevention Cooperative Agreement DP1810. Statistical significance at $p < 0.05$, when not stated otherwise.



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For More Information

Visit the North Dakota Oral Health Program webpage at oral.health.nd.gov

Visit the Center for Rural health webpage at ruralhealth.und.edu/what-we-do/oral-health

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