

Results of the 2007 Oral Health Survey of Alaskan Kindergarten Children

Alaska Oral Health Basic Screening Survey

**– a visual, oral health assessment of kindergarten children
from a sample of Alaska sites for oral health disease
surveillance**



Submitted by: James David Hardison, DMD, MBA
Contractor

For: Alaska Department of Health and Social
Services Oral Health Program
Contract #060590

State Dental Director:

Bradley J. Whistler, DMD

Contractor:

James David Hardison, DMD, MBA

2620 Clubside Court

Lexington, KY 40513-1439

859.323.8615

hardison@uky.edu

Data Management and Analysis:

Suzanne Eberling, DMD, PhD

PO Box 1038

Dillingham, AK 99576

This study and report were made possibly by grant #H47MC02094 from the U.S. Health Resources and Services Administration, Maternal Child Health Bureau and cooperative agreement #U58/CCU022905 from the U.S. Centers for Disease Control and Prevention, Division of Oral Health. The contents of this report are solely the responsibility of the authors and do not necessarily represent the official views of the funding agencies.

2007 Alaska State Oral Health Assessment: Kindergarten Children

Index of Tables

Item	Description	Page
------	-------------	------

Response Rates, Demographics

Table 1	Percent of returned completed questionnaires to enrolled Alaskan kindergarten children at selected schools, 2007	2
Table 2	Percent of returned completed questionnaires and clinical screenings to enrolled Alaskan kindergarten children at selected schools, 2007	3
Table 3	Distribution of participants by screener, Alaskan kindergarten children, 2007	4
Table 4	Mean age (in months) of respondents participating in the clinical assessment by gender, Alaskan kindergarten children, 2007	5
Table 5	Distribution of questionnaire respondents by gender, Alaskan kindergarten children, 2007	5
Table 6	Distribution of screening participants by gender, Alaskan kindergarten children, 2007	6
Table 7	Distribution of respondents by race/ethnicity as reported by parent/guardian, Alaskan kindergarten children, 2007	6
Table 8	Revised distribution of respondents by race/ethnicity, Alaskan kindergarten children, 2007	7
Table 9	“Collapsed” distribution of respondents by race/ethnicity, Alaskan kindergarten children, 2007	8

Basic Frequency Tables: Questionnaire Variables

Table 10	Length of time since last reported dental visit, Alaskan kindergarten children, 2007	9
Table 11	Main reason for last dental visit, Alaskan kindergarten children, 2007	10
Table 12	Inability to obtain dental care in past 12 months, Alaskan kindergarten children, 2007	11
Table 13	Main reason for parent’s inability to get dental care for their child, Alaskan kindergarten children, 2007 (among those who could not get care)	11
Table 14	Survey respondents reporting tooth pain, Alaskan kindergarten children, 2007	12
Table 15	Respondents with dental insurance, Alaskan kindergarten children, 2007	12

Item	Description	Page
Table 16	Type of dental insurance coverage carried by respondents, Alaskan kindergarten children, 2007	13
Table 17	Respondents receiving care through a Native Health Corporation, Alaskan kindergarten children, 2007	13
Table 18	Respondents with medical insurance, Alaskan kindergarten children, 2007	14

Basic Frequency Tables: Screening Variables

Table 19	Untreated dental caries, Alaskan kindergarten children, 2007	15
Table 20	Dental caries experience, Alaskan kindergarten children, 2007	15
Table 21	Dental caries experience on primary anterior teeth, Alaskan kindergarten children, 2007	16
Table 22	Urgency of dental treatment needs, Alaskan kindergarten children, 2007	16
Table 23	Number of quadrants needing treatment, Alaskan kindergarten children, 2007	17

Differences by Gender

Table 24	Variables with insignificant differences between results when compared by gender, Alaskan kindergarten children, 2007	18
----------	---	----

Differences by Race/Ethnicity

Table 25	Variables with insignificant differences between results when compared by Race/Ethnicity, Alaskan kindergarten children, 2007	19
Table 26	Length of time since last dental visit by Race/Ethnicity, Alaskan kindergarten children, 2007	20
Table 27	Reason for last dental visit by Race/Ethnicity, Alaskan kindergarten children, 2007	21
Table 28	Inability to get needed dental care by Race/Ethnicity, Alaskan kindergarten children, 2007	22
Table 29	Respondents reporting tooth pain by Race/Ethnicity, Alaskan kindergarten children, 2007	23
Table 30	Proportion of respondents with dental insurance by Race/Ethnicity, Alaskan kindergarten children, 2007	24

Item	Description	Page
Table 31	Proportion of respondents with “commercial” dental insurance by Race/Ethnicity, Alaskan kindergarten children, 2007	25
Table 32	Proportion of respondents with “Denali KidCare/Medicaid” coverage by Race/Ethnicity, Alaskan kindergarten children, 2007	26
Table 33	Proportion of respondents with “Military” dental insurance by Race/Ethnicity, Alaskan kindergarten children, 2007	26
Table 34	Proportion of respondents receiving care through an IHS/Native Health Corporation/tribal clinic by Race/Ethnicity, Alaskan kindergarten children, 2007	27
Table 35	Proportion of respondents with medical insurance by Race/Ethnicity, Alaskan kindergarten children, 2007	27
Table 36	Proportion of participants with untreated dental caries by Race/Ethnicity, Alaskan kindergarten children, 2007	28
Table 37	Proportion of participants with dental caries experience by Race/Ethnicity, Alaskan kindergarten children, 2007	29
Table 38	Proportion of participants with dental caries experience on primary maxillary anterior teeth by Race/Ethnicity, Alaskan kindergarten children, 2007	30
Table 39	Treatment urgency by Race/Ethnicity, Alaskan kindergarten children, 2007	31
Table 40	Proportion of participants needing treatment by Race/Ethnicity, Alaskan kindergarten children, 2007	32
Table 41	Number of quadrants needing treatment by Race/Ethnicity, Alaskan kindergarten children, 2007	33
Table 42	Mean number of quadrants needing treatment by Race/Ethnicity, Alaskan kindergarten children, 2007	34

Differences by Dental Insurance Status

Table 43	Variables with insignificant differences between results when compared by dental insurance status, Alaskan kindergarten children, 2007	35
Table 44	Length of time since last dental visit and dental insurance status, Alaskan kindergarten children 2007	36
Table 45	Reason for last dental visit and dental insurance status, Alaskan kindergarten children, 2007	37
Table 46	Inability to obtain needed dental care and dental insurance status, Alaskan kindergarten children, 2007	38

Item	Description	Page
Table 47	Native Health Corporation/Tribal care and dental insurance status, Alaskan kindergarten children, 2007	39
Table 48	Medical/surgical insurance and dental insurance status, Alaskan kindergarten children, 2007	40

Differences by Denali KidCare/Medicaid Status

Table 49	Variables with insignificant differences between results when compared by Denali KidCare/Medicaid status, Alaskan kindergarten children, 2007	41
Table 50	Reason for last dental visit and Denali KidCare/Medicaid status, Alaskan kindergarten children, 2007	42
Table 51	Inability to obtain needed dental care and Denali KidCare/Medicaid status, Alaskan kindergarten children, 2007	43
Table 52	Native Health Corporation/Tribal care and Denali KidCare/Medicaid status, Alaskan kindergarten children, 2007	44
Table 53	Medical/surgical insurance and Denali KidCare/Medicaid status, Alaskan kindergarten children, 2007	45
Table 54	Denali KidCare/Medicaid status and untreated dental caries, Alaskan kindergarten children, 2007	46
Table 55	Proportion of participants with Denali KidCare/Medicaid coverage and untreated dental caries by race/ethnicity, Alaskan kindergarten children, 2007	47
Table 56	Denali KidCare/Medicaid status and dental caries experience, Alaskan kindergarten children, 2007	48
Table 57	Proportion of participants with Denali KidCare/Medicaid coverage and dental caries experience by race/ethnicity, Alaskan kindergarten children, 2007	49
Table 58	Denali KidCare/Medicaid status and dental caries experience on primary maxillary anterior teeth, Alaskan kindergarten children, 2007	50
Table 59	Proportion of participants with Denali KidCare/Medicaid coverage and dental caries experience on primary maxillary anterior teeth by Race/Ethnicity, Alaskan kindergarten children, 2007	51
Table 60	Denali KidCare/Medicaid status and treatment urgency, Alaskan kindergarten children, 2007	52
Table 61	Denali KidCare/Medicaid status and treatment urgency, all categories, Alaskan kindergarten children, 2007	53

Item	Description	Page
------	-------------	------

Differences by Clinical Variables: Untreated Dental Caries

Table 62	Variables with insignificant differences between results when compared by the presence/absence of untreated dental caries, Alaskan kindergarten children, 2007	54
Table 63	Length of time since last dental visit and untreated dental caries status, Alaskan kindergarten children, 2007	55
Table 64	Reason for last dental visit and untreated dental caries status, Alaskan kindergarten children, 2007	56
Table 65	Inability to obtain needed dental care in the past 12 months and untreated dental caries status, Alaskan kindergarten children, 2007	57
Table 66	Respondents reporting tooth pain and untreated dental caries status, Alaskan kindergarten children, 2007	58
Table 67	Untreated dental caries and Native Health Corporation/Tribal care, Alaskan kindergarten children, 2007	59
Table 68	Caries experience of participants with no untreated dental caries, Alaskan kindergarten children, 2007	60
Table 69	Untreated dental caries status and caries experience on primary maxillary anterior teeth, Alaskan kindergarten children, 2007	60
Table 70	Treatment urgency among children with untreated dental caries, Alaskan kindergarten children, 2007	61
Table 71	Untreated dental caries and number of quadrants needing treatment, Alaskan kindergarten children, 2007	61

Differences by Clinical Variables: Dental Caries Experience

Table 72	Variables with insignificant differences between results when compared by the presence/absence of dental caries experience, Alaskan kindergarten children, 2007	62
Table 73	Mean age (in months) of respondents participating in the clinical assessment by dental caries experience, Alaskan kindergarten children, 2007	63
Table 74	Length of time since last dental visit and dental caries experience, Alaskan kindergarten children, 2007	63
Table 75	Length of time since last dental visit and dental caries experience among children with no untreated caries, Alaskan kindergarten children, 2007	64

Item	Description	Page
Table 76	Reason for last dental visit and dental caries experience, Alaskan kindergarten children, 2007	65
Table 77	Reason for last dental visit and dental caries experience among children with no untreated caries, Alaskan kindergarten children, 2007	66
Table 78	Inability to obtain needed dental care in the past 12 months and dental caries experience, Alaskan kindergarten children, 2007	67
Table 79	Inability to obtain needed dental care in the past 12 months and dental caries experience among children with no untreated dental caries, Alaskan kindergarten children, 2007	68
Table 80	Dental caries experience and tooth pain, Alaskan kindergarten children, 2007	68
Table 81	Dental caries experience and tooth pain among those with no untreated dental caries, Alaskan kindergarten children, 2007	70
Table 82	Dental caries experience and Native Health Corporation/Tribal care, Alaskan kindergarten children, 2007	71
Table 83	Dental caries experience on primary maxillary anterior teeth and dental caries experience, Alaskan kindergarten children, 2007	72
Table 84	Dental caries experience and treatment urgency, Alaskan kindergarten children, 2007	72
Table 85	Dental caries experience and number of quadrants needing treatment, Alaskan kindergarten children, 2007	73

Differences by Clinical Variables: Dental Caries Experience on Primary Maxillary Anterior Teeth

Table 86	Variables with insignificant differences between results when compared by the presence/absence of dental caries experience, Alaskan kindergarten children, 2007	74
Table 87	Dental caries experience on primary maxillary anterior teeth and length of time since last dental visit, Alaskan kindergarten children 2007	75
Table 88	Dental caries experience on primary maxillary anterior teeth and reason for last dental visit, Alaskan kindergarten children, 2007	76

Item	Description	Page
Table 89	Dental caries experience on primary maxillary anterior teeth and inability to obtain needed dental care in last 12 months, Alaskan kindergarten children, 2007	77
Table 90	Dental caries experience on primary maxillary anterior teeth and tooth pain, Alaskan kindergarten children, 2007	78
Table 91	Dental caries experience on primary maxillary anterior teeth and Native Health Corporation/Tribal care, Alaskan kindergarten children, 2007	79
Table 92	Dental caries experience on primary maxillary anterior teeth and treatment urgency, Alaskan kindergarten children, 2007	80
Table 93	Dental caries experience on primary maxillary anterior teeth and mean number of quadrants needing treatment, Alaskan kindergarten children, 2007	81

Alaska State Oral Health Assessment, Kindergarten 2007

Assessment description:

This assessment consisted of two parts: a consent form/questionnaire for parents/guardians to complete and a school-based clinical assessment provided by dentists operating under standardized ASTDD survey guidelines. The consents were distributed according to individual school preferences: some schools/districts placed the consents in registration packets, and some sent them home as individual paperwork or as a part of student's weekly packets. Response rates are reported separately for questionnaire results (all children who returned questionnaires), and for children who participated in both components (questionnaire and clinical screening) of the assessment. There were a small percentage of respondents who completed questionnaires but did not want their children to have the clinical assessment (3.3%) and an additional small percentage of children who had consents returned with permission to examine but who were absent on the day of the exam (9.1%). Data was collected between 9/13/2007 and 11/12/2007.

All analyses were performed using EpiInfo2000 software; confidence intervals for means were computed by hand using software tabulated variances.

For these preliminary dataset calculations, sample weights were not available. Response rates were averaged at the School level.

Based on a very rough extrapolation of Year 2000 Census data, this sample comprises approximately 18.1 % of Alaskan kindergarten children. After factoring in response rates, approximately 9.5% of Alaskan kindergarten children ultimately represented their cohort in the questionnaire responses and 8.5% for questionnaire/screening responses.

Response Tables:

Table 1.

Percent of returned completed questionnaires to enrolled Alaskan kindergarten children at selected schools, 2007

Site	Number of students enrolled in grade	Number of returned completed questionnaires	Percent participation
Sand Lake Elementary	92	65	70.7
Tudor Elementary	85	21	24.7
Goose Bay Elementary	97	62	63.9
Chinook Elementary	63	22	34.9
Meadow Lakes Elementary	74	36	48.6
Bear Valley Elementary	78	58	74.4
Birchwood ABC Elementary	49	29	59.2
Campbell Elementary	58	25	43.1
Creekside Park Elementary	65	29	44.6
Gladys Wood Elementary	51	25	49.0
Government Hill Elementary	69	25	36.2
Muldoon Elementary	58	17	29.3
Northwood Elementary	53	39	73.6
Orion Elementary School	68	34	50.0
Rogers Park Elementary	66	51	77.3
William Tyson Elementary	57	38	66.7
Aurora Borealis Charter School	23	19	82.6
Paul Banks Elementary	81	34	42.0
Kalifornsky Beach Elementary	60	44	73.3
Redoubt Elementary	42	19	45.2
Gastineau Elementary	46	22	47.8
Glacier Valley Elementary	52	17	32.7
Baranof Elementary	94	50	53.2
Unalaska Elementary	33	20	60.6
Kiana School	5	4	80.0
Alakanuk School	13	8	61.5
Fred Ipalook Elementary	47	18	38.3
Dillingham Elementary	44	22	50.0
Woodriver Elementary	67	44	65.7
Barnette Magnet School	35	24	68.6
Sample Total	1725	921	53.4

Response rates varied between sites, ranging from 25% to 83% for survey participation.

Table 2.**Percent of returned completed questionnaires and clinical screenings to enrolled Alaskan kindergarten children at selected schools, 2007**

Site	Number of Students enrolled in grade	Number of children returning completed questionnaires and participating in clinical assessment	Percent participation
Sand Lake Elementary	92	60	65.2
Tudor Elementary	85	20	23.5
Goose Bay Elementary	97	28	28.9
Chinook Elementary	63	19	30.2
Meadow Lakes Elementary	74	32	43.2
Bear Valley Elementary	78	49	62.8
Birchwood ABC Elementary	49	23	46.9
Campbell Elementary	58	24	41.4
Creekside Park Elementary	65	27	41.5
Gladys Wood Elementary	51	23	45.1
Government Hill Elementary	69	20	29.0
Muldoon Elementary	58	16	27.6
Northwood Elementary	53	35	66.0
Orion Elementary School	68	30	44.1
Rogers Park Elementary	66	46	69.7
William Tyson Elementary	57	32	56.1
Aurora Borealis Charter School	23	19	82.6
Paul Banks Elementary	81	31	38.3
Kalifornsky Beach Elementary	60	40	66.7
Redoubt Elementary	42	18	42.9
Gastineau Elementary	46	20	43.5
Glacier Valley Elementary	52	16	30.8
Baranof Elementary	94	50	53.2
Unalaska Elementary	33	20	60.6
Kiana School	5	4	80.0
Alakanuk School	13	8	61.5
Fred Ipalook Elementary	47	15	31.9
Dillingham Elementary	44	22	50.0
Woodriver Elementary	67	41	61.2
Barnette Magnet School	35	19	54.3
Sample Total	1725	807	46.8

Response rates varied between sites, ranging from 24% to 83% for survey/screening participation.

Table 3.

Distribution of participants by screener, Alaskan kindergarten children, 2007

Screener	Number of participants	Percent of participants
AMG	100	10.9
CB	20	2.2
CH	68	7.4
DW	22	2.4
JDH	610	66.2
JE	39	4.2
JH	8	0.9
KB	4	0.4
TJ	50	5.4
Total	921	100.0

Five screeners collected data for this survey, providing between 4 and 610 exams each. One screener (JDH) provided over 66% of exams.

Demographic Variables:

Table 4.

Mean age (in months) of respondents participating in the clinical assessment by gender, Alaskan kindergarten children, 2007

Gender	Age in months (range)	Std. Deviation
Male (n=400)	67.6 (50-82)	4.4711
Female (n=407)	67.0 (57-83)	4.1871
Both (n=807)	67.3 (50-83)	4.3382

Age was computed only for children who participated in the clinical assessment. Girls were slightly younger than boys (P-Value=0.0467). Birthdates ranged from 10/20/2000 to 7/26/2003. This sample comprised children that were about six months younger than Alaskan kindergartners surveyed in the spring of 2005, who had a mean age of 73.7 months (range 62-85).

Table 5.

Distribution of questionnaire respondents by gender, Alaskan kindergarten children, 2007

Gender	Number of respondents	Percent	95% CI
Male	466	50.6	(47.3, 53.9)
Female	455	49.4	(46.1, 52.7)
Total	921	100.0	

There were slightly more male questionnaire respondents but this difference was not statistically significant.

Table 6.**Distribution of screening participants by gender, Alaskan kindergarten children, 2007**

Gender	Number of respondents	Percent	95% CI
Male	400	49.6	(46.1, 53.1)
Female	407	50.4	(46.9, 53.9)
Total	807	100.0	

There were slightly more female screening participants but this difference was also not statistically significant.

Table 7.**Distribution of respondents by race/ethnicity as reported by parent/guardian, Alaskan kindergarten children, 2007**

Race/Ethnicity	Code	Number of respondents	Percent of respondents
White	1	479	52.0
Black/African American	2	45	4.9
Hispanic/Latino	3	49	5.3
Asian	4	61	6.6
American Indian/Alaskan Native	5	146	15.9
Native Hawaiian/Pacific Islander	6	25	2.7
Multi-Racial	7	100	10.9
Unknown	9	1	0.1
Blank		15	1.6
Total		921	100

The child scored as “unknown” by their parent/guardian was also scored as “unknown” by the examining dentist. Of the 15 children for whom Race/Ethnicity was not scored by their parent/guardian, 13 were present and had consent for a clinical exam. The examining dentist classified 6 as “White”, one as “Hispanic/Latino”, one as “Asian”, one as “American Indian/Alaskan Native”, two as “Native Hawaiian/Pacific Islander”, and two as “Multiracial”.

Table 8.

Revised distribution of respondents by race/ethnicity, Alaskan kindergarten children, 2007

Race/Ethnicity	Code	Number of respondents	Percent of respondents	95% CI
White	1	485	52.7	(49.4, 55.9)
Black/African American	2	45	4.9	(3.6, 6.5)
Hispanic/Latino	3	50	5.4	(4.1, 7.1)
Asian	4	62	6.7	(5.2, 8.6)
American Indian/Alaskan Native	5	147	16.0	(13.7, 18.5)
Native Hawaiian/Pacific Islander	6	27	2.9	(2.0, 4.3)
Multi-Racial	7	102	11.1	(9.2, 13.3)
Unknown	9 or 99	3	0.3	(0.1, 1.0)
Total		921	100	

This table shows the composite determination of Race/Ethnicity of respondents. If the parent/guardian coded “unknown” or left the coding response blank, the screener was asked to make a Race/Ethnicity judgment by observation or in conjunction with school personnel. This observation was coded separately from that coded by the parent/guardian. When the parental response was “unknown” or blank, the screener’s response, when available, was used to revise the categorization of the child. This table shows these recodes, which were used for subsequent analyses.

For some analyses, cell sizes were too small to evaluate all racial groupings. A grouped racial variable was created in categories identical to those used in previous survey analyses to allow comparisons. The original seven groupings for Race/ethnicity were collapsed into three groupings, displayed in Table 9: “White, “Native American/Alaskan Native, and “All others” which includes “Blacks/African American”, Hispanic/Latino”, “Asian”, “Native Hawaiian/Pacific Islander”, “Multi-Racial”, and “Unknown”.

Based on rough extrapolation, again, of Alaska 2000 census data, this racial distribution crudely approximates reported Race/Ethnicity distributions for the state population of a whole (all ages). The confidence intervals for this sample did not include the census estimate for “Whites” (census estimate 65.2%), “Asian” (census estimate 4.0%), “Native Hawaiian/Pacific Islander (census estimate 0.5%), and “Multi-Racial” (census estimate 5.4%). This sample somewhat under-represents the “White” race/ethnicity category and over-represents “Asian”, “Native Hawaiian/Pacific Islander” and “Multi-Racial” categories with respect to crude state estimates.

Table 9.

“Collapsed” distribution of respondents by race/ethnicity, Alaskan kindergarten children, 2007

Race/Ethnicity	Code	Number of respondents	Percent of respondents	95% CI
White	1	485	52.7	(49.4, 55.9)
American Indian/Alaskan Native	5	147	16.0	(13.7, 18.5)
All others:				
Black/African American,	2			
Hispanic/Latino,	3			
Asian,	4			
Native Hawaiian/Pacific Islander,	6			
Multi-Racial,	7			
Unknown	9 or 99	289	31.4	(28.4, 34.5)
Total		921	100.0	

For some analyses, the sample size across the listed choices for Race/Ethnicity was small or non-existent, precluding valid analysis. For these analyses, the groupings were collapsed per the table above, leaving Race/Ethnicity categories of “White”, “American Indian/Alaskan Native”, and “All Others”.

Questionnaire Variables:

Table 10.

Length of time since last reported dental visit, Alaskan kindergarten children, 2007

Question 1: About how long has it been since your child last visited a dentist? (Include all types of dentists such as orthodontists and oral surgeons as well as dental hygienists.) (Please check only one.)

Response	Number responding	Percent responding	95% CI
6 months or less	441	47.9	(44.6, 51.2)
More than 6 months, but not more than 1 year	185	20.1	(17.6, 22.9)
More than 1 year, but not more than 3 years ago	130	14.1	(12.0, 16.6)
More than 3 years ago	12	1.3	(0.7, 2.3)
Never has been to the dentist	141	15.3	(13.1, 17.8)
Don't know/don't remember	8	0.9	
(Blank)	4	0.4	
Total	921	100	

Slightly less than 60% of respondents reported that their child's last dental visit was within the past year, with most of these children visiting a dentist within the past six months. Over fifteen percent of parents responded that their child had never been to a dentist.

Table 11.**Main reason for last dental visit, Alaskan kindergarten children, 2007**

Question 2. What was the main reason that your child last visited a dentist? (Please check only one.)

Response	Number responding	Percent responding	95% CI
Something was wrong, bothering or hurting	48	5.2	(3.9, 6.9)
Went for treatment of a condition that dentist discovered at earlier check-up or examination	93	10.1	(8.3, 12.3)
Went in on own for check-up, exam or cleaning	567	61.6	(58.3, 64.7)
Was called in by dentist for check-up, exam or cleaning	61	6.6	(5.1, 8.5)
Don't know	16	1.7	
(Blank)	136	14.8	
Total	921	100	

About 5% of respondents reported that their child's last dental visit was due to pain or discomfort. Nearly 70% went in for examination or cleaning, and about 10% went in for some type of dental treatment that was previously noted by their dentist. "Other" responses were re-coded as a listed response if comments indicated a logical choice was available (i.e. "abscess" was recoded as "Something was wrong, bothering, or hurting."). Two responses were recoded.

Table 12.

Inability to obtain dental care in past 12 months, Alaskan kindergarten children, 2007

Question 3. During the past 12 months, was there a time when your child needed dental care but could not get it at that time?

Response	Number Responding	Percent Responding	95% CI
Yes	104	11.3	(9.4, 13.6)
No	787	85.5	(83.0, 87.6)
Don't Know	14	1.5	
(Blank)	16	1.7	
Total	921	100.0	

One hundred and four parents (11%) reported having difficulty in obtaining needed dental care for their child in the past 12 months.

Table 13.

Main reason for parent's inability to get dental care for their child, Alaskan kindergarten children, 2007 (among those who could not get care)

Question 3 subset: What was the main reason the child couldn't get care? (Please check only one.)

Response	Number responding	Percent responding	95% CI
Dentist did not accept Denali KidCare/Medicaid Insurance	5	4.8	(1.6, 10.9)
No dentist available	9	8.7	(4.0, 15.8)
No way to get there	7	6.7	(2.7, 13.4)
Difficulty in getting appointment	33	31.7	(22.9, 41.6)
Did not know where to go	3	2.9	(0.6, 8.2)
Not serious enough	3	2.9	(0.6, 8.2)
Don't like/trust/believe in dentists	4	3.8	(1.1, 9.6)
Could not afford	31	29.8	(21.2, 39.6)
Other reason	4	3.8	(1.1, 9.6)
Blank	5	4.8	
Total	104	99.9	

Of those parents whose children needed care but could not get it, the most frequent reasons given were that they had difficulty in getting an appointment (32%) or could not afford care (30%).

Table 14.

Survey respondents reporting tooth pain, Alaskan kindergarten children, 2007

Question 4: During the past six months did your child have a toothache more than once when biting or chewing?

Response	Number responding	Percent responding	95% CI
Yes	52	5.6	(4.3,7.4)
No	838	91.0	(88.9, 92.7)
Don't Know	12	1.3	
(Blank)	19	2.1	
Total	921	100.0	

About 5% of respondents reported that their child had a toothache more than once in the past six months.

Table 15.

Respondents with dental insurance, Alaskan kindergarten children, 2007

Question 5. Do you have any kind of insurance that pays for some or all of your child's dental care? (Check only one.)

Response	Number responding	Percent responding	95% CI
Yes	725	78.7	(75.9, 81.3)
No	170	18.5	(16.0, 21.1)
Don't Know	5	0.5	
(Blank)	21	2.3	
Total	921	100	

Almost 80% of respondents reported having some type of dental insurance.

Table 16.

Type of dental insurance coverage carried by respondents, Alaskan kindergarten children, 2007

Question 5 subset. What kind of dental insurance? (Check all that apply)

Response	Number responding	Percent responding	95% CI
Commercial (provided by employer)	341	47.0	(43.4, 50.7)
Private (you bought yourself)	24	3.3	(2.2, 5.0)
Denali KidCare/Medicaid	234	32.3	(28.9, 35.8)
Military/Tricare (Champus)	87	12.0	(9.8, 14.6)
Don't Know	73	10.1	(8.0, 12.5)
Multiple types of insurance selected	35	4.8	(3.4, 6.7)
At least one type of insurance selected	651	89.8	(87.3, 91.9)

Of those covered by some type of dental insurance, most (47%) reported having insurance through their employer. About 32% reported coverage by Denali KidCare or Medicaid. About five percent of children seemed to be covered by more than one type of policy.

Table 17.

Respondents receiving care through a Native Health Corporation, Alaskan kindergarten children, 2007

Question 6. Does your child receive dental care through a Native Health Corporation/tribal clinic or in a village based setting (school/clinic)?

Response	Number Responding	Percent Responding	95% CI
Yes	166	18.0	(15.6, 20.7)
No	686	74.5	(71.5, 77.2)
Don't Know	11	1.2	
(Blank)	58	6.3	
Total	921	100	

Eighteen percent of respondents reported receiving dental care through a Native Health Corporation/tribal clinic or in a village based setting.

Table 18.

Respondents with medical insurance, Alaskan kindergarten children, 2007

Question 7. Do you have any kind of insurance that pays for some or all of your child's Medical or surgical care? Include health insurance obtained through employment or purchased directly as well as government programs like Denali KidCare/Medicaid. (Please check only one.)

Response	Number responding	Percent responding	95% CI
Yes	698	75.8	(72.9, 78.5)
No	173	18.8	(16.3, 21.5)
Don't Know	20	2.2	
(Blank)	30	3.3	
Total	921	100.0	

About 75% of respondents reported that they had some type of medical/surgical insurance for their child.

Screening Variables:

Parental consent was obtained to examine 891 of the 921 children who returned surveys. Of these, 84 children were absent on the day of exam. 807 (87.6%) of children with returned surveys were examined by a dentist at their school, using a mouth mirror and flashlight. Children were scored for the presence of untreated dental carious lesions, dental caries experience, dental caries experience on primary maxillary anterior teeth, treatment urgency, and the number of quadrants needing treatment for dental caries. Only children who had parental consent, were present, and gave consent for an exam (n=807) were included in clinical response tabulations.

Assessments were performed between 13 September 2007 and 12 November 2007.

Frequencies of Screening Variables:

Table 19.

Untreated dental caries, Alaskan kindergarten children, 2007

Untreated Dental Caries	Number of participants	Percent of participants	95% CI
Yes	196	24.3	(21.4, 27.4)
No	611	75.7	(72.6, 78.6)
Total	807	100.0	

Almost 25% of children examined had cavitated carious lesions.

Table 20.

Dental caries experience, Alaskan kindergarten children, 2007

Dental Caries Experience	Number of participants	Percent of participants	95% CI
Yes	327	40.5	(37.1, 44.0)
No	470	58.2	(54.7, 61.7)
Not scored	10		
Total	807	100.0	

Of children examined, about 40% had dental caries experience.

Table 21.

Dental caries experience on primary anterior teeth, Alaskan kindergarten children, 2007

Dental Caries Experience on Primary Anterior Teeth	Number of participants	Percent of participants	95% CI
Yes	101	12.5	(10.4, 15.0)
No	688	85.3	(82.6, 87.6)
Not scored	18	2.2	
Total	807	100.0	

Twelve percent of children had a history of dental caries on their primary anterior teeth.

Table 22.

Urgency of dental treatment needs, Alaskan kindergarten children, 2007

Urgency of Treatment Need	Number of participants	Percent of participants	95% CI
No obvious problem	611	75.7	(72.6, 78.6)
Early dental care (within weeks)	177	21.9	(19.2, 25.0)
Urgent care (within 24 hours)	19	2.4	(1.5, 3.7)
Total	807	100.0	

Most children (75%) had no obvious treatment needs, about 22% needed routine care, and 2% needed urgent care.

Table 23.

Number of quadrants needing treatment, Alaskan kindergarten children, 2007

Number of Quadrants Needing Treatment	Number of participants	Percent of participants	95% CI
0	610	75.6	(72.4, 78.5)
1	79	9.8	(7.9, 12.1)
2	55	6.8	(5.2, 8.8)
3	40	5.0	(3.6, 6.7)
4	23	2.9	(1.9, 4.3)
Total	807	100.0	

Only a few children (3%) needed care in all quadrants. Most who needed quadrant-level care had two or less quadrants in need (17%). Over three quarters of children examined needed no treatment for dental caries.

Differences by Gender

There were no variables that revealed statistical differences in results stratified by gender; variables analyzed are listed in the table below. For both questionnaire and clinical variables, only records with meaningful responses were tabulated (all “unknown” and “blank” responses were ignored when appropriate). This yields varying numbers of records for different variables, as respondents were not required to answer all questions. Males occupied the default table position, as did “Yes” responses in the dependent variable field. P-values (Chi-square) are presented for multi-level variables and Odds Ratios (OR) with 95% Confidence Intervals for two-level variables. ANOVA tests for population means were used for continuous variables.

Table 24.

Variables with insignificant differences between results when compared by gender, Alaskan kindergarten children, 2007

Variable	P-Value	OR (95% CI)
Age (mean age in months)	0.0755	
Race/Ethnicity	0.9204	
Race/Ethnicity (grouped variable)	0.8332	
Length of time since last reported dental visit	0.4556	
Main reason for last dental visit	0.3223	
Inability to get dental care in past 12 months		0.91 (0.61, 1.34)
Respondents reporting tooth pain		1.23 (0.70, 2.15)
Proportion of Respondents with dental insurance		1.01 (0.72, 1.41)
Proportion of Respondents with commercial dental insurance		1.01 (0.77, 1.31)
Proportion of Respondents with private dental insurance		0.82 (0.36, 1.85)
Proportion of Respondents with Denali KidCare/Medicaid		1.09 (0.81, 1.46)
Proportion of Respondents with Military/Tricare (Champus) coverage		1.00 (0.64, 1.55)
Proportion of Respondents who receive care through a Native Health Corporation/tribal clinic or in a village based setting (school/clinic)		1.08 (0.77, 1.51)
Respondents with medical insurance		0.89 (0.63, 1.24)
Untreated dental caries		1.02 (0.74, 1.41)
Dental caries experience		1.22 (0.92, 1.62)
Dental caries experience on primary anterior teeth		1.50 (0.98, 2.29)
Treatment urgency	0.9619	
Mean number of quadrants needing treatment	0.5524	

“Main reason for parent’s inability to get care for child (n=104, nine categories of responses)” could not be assessed with validity due to small sample size.

Differences by Race/Ethnicity

The revised Race/Ethnicity variable described in Table 8 was used for these analyses whenever possible; if cell sizes became too small to evaluate every racial/ethnic category, the “collapsed” Race/Ethnicity variable described in Table 9 was used.

Individual tables are not reported for variables that revealed no statistical differences in results when compared by Race/Ethnicity. These variables are listed in Table 25. For both questionnaire and clinical variables, only records with meaningful responses were tabulated (all “unknown” and “blank” responses were ignored). This yields varying numbers of records for different variables, as respondents were not required to answer all questions.

Table 25.

Variables with insignificant differences between results when compared by Race/Ethnicity, Alaskan kindergarten children, 2007

Variable	P-Value
Age (in months)	0.2136
Proportion of Respondents with private dental insurance ^{1,2,3}	0.0315

¹ Grouped Race/Ethnicity variable used due to small cell sizes.

² Very few respondents (24) reported having private dental insurance, and cell sizes fell to 0 and 1 in some categories, precluding valid assumptions.

³ Only respondents who indicated that they had dental insurance were assessed.

There were too few respondents (104) reporting on Question 3(subset), reasons for the inability to obtain care (eight choices), to make assessments by Race/Ethnicity meaningful, even when using the grouped Race/Ethnicity variable.

Table 26.

Length of time since last dental visit by Race/Ethnicity, Alaskan kindergarten children, 2007

Race		Length of time since last dental visit				Total
		<= 6 months	6-12 months	1-3 years	> 3 years or has never been to a dentist	
White	n	256	83	62	81	482
	row%	53.1	17.2	12.9	16.8	100.0
	col%	58.2	44.9	48.1	53.3	53.2
American Indian/Alaskan Native	n	65	42	24	11	142
	row%	45.8	29.6	16.9	7.7	100.0
	col%	14.8	22.7	18.6	7.2	15.7
All others	n	119	60	43	60	282
	row%	42.2	21.3	15.2	21.3	100.0
	col%	27.0	32.4	33.3	39.5	31.1
All Races	n	440	185	129	152	906
	row%	48.6	20.4	14.2	16.8	100.0
	col%	100.0	100.0	100	100.0	100.0

To obtain adequate cell size for analysis, both variables had to be grouped. There were significant differences in the reason reported for the last dental visit between Race/Ethnicity groupings (Chi-squared = 24.8388, 6 df, P=0.0004). Children classified as “White” were less likely to report that their last visit was less than six months ago than children in other race/ethnicity categories. A larger proportion of children that were classified as “all others” (over 21%) reported that their last visit was “more than three years ago” or “never” than children classified as “White”, who were themselves more likely to have responded in like fashion than children classified as “American Indian/Alaskan Native”, who were the least likely to report that they were last to the dentist “more than three years ago” or “never”.

Table 27.

Reason for last dental visit by Race/Ethnicity, Alaskan kindergarten children, 2007

Race		Reason for last dental visit				Total
		Something was wrong	Went for treatment	Went on own for exam	Was called in for exam	
White	n	17	37	330	22	406
	row%	4.2	9.1	81.3	5.4	100.0
	col%	35.4	39.8	58.3	36.7	52.9
American Indian/Alaskan Native	n	15	29	74	16	134
	row%	11.2	21.6	55.2	11.9	100.0
	col%	31.3	31.2	13.1	26.7	17.5
All others	n	16	27	162	22	227
	row%	7.0	11.9	71.4	9.7	100.0
	col%	33.3	29.0	28.6	36.7	29.6
All Races	n	48	93	566	60	767
	row%	6.3	12.1	73.8	7.8	100.0
	col%	100.0	100.0	100	100.0	100.0

There were significant differences in the reason reported for the last dental visit between Race/Ethnicity groupings (Chi-squared = 37.7263, 6 df, P=0.0000). Children classified as “White” were less likely to report that their last visit was because “Something was wrong, bothering or hurting” than children in other race/ethnicity categories. A larger proportion of children that were classified as “American Indian/Alaskan Native” (over 21%) reported that their last visit was for some type of treatment than “Whites” (9.1%) or “Others” (11.9%).

Table 28.

Inability to get needed dental care by Race/Ethnicity, Alaskan kindergarten children, 2007

Race		Not able to get dental care when needed (past 12 months)		
		Yes	No	Total
White	n	44	433	477
	row%	9.2	90.8	100.0
	col%	42.3	55.2	53.7
American Indian/Alaskan Native	n	16	127	143
	row%	11.2	88.8	100.0
	col%	15.4	16.2	16.1
All others	n	44	224	268
	row%	16.4	83.6	100.0
	col%	42.3	28.6	30.2
All Races	n	104	784	888
	row%	11.7	88.3	100.0
	col%	100.0	100.0	100.0

There significant differences in the ability to get care when needed between Race/Ethnicity groupings (Chi-squared = 8.6325, 2 df, P=0.0133). “Whites” and “American Indian/Alaskan Natives” were more likely to report being able to obtain care when needed than children grouped in the “all others” category.

Table 29.

Respondents reporting tooth pain by Race/Ethnicity, Alaskan kindergarten children, 2007

Race		Toothache more than once in past 6 months when biting or chewing		
		Yes	No	Total
White	n	18	458	476
	row%	3.8	96.2	100.0
	col%	34.6	54.8	53.6
American Indian/Alaskan Native	n	13	130	143
	row%	9.1	90.9	100.0
	col%	25.0	15.6	16.1
All others	n	21	248	269
	row%	7.8	92.2	100.0
	col%	40.4	29.7	30.3
All Races	n	52	836	888
	row%	5.9	94.1	100.0
	col%	100.0	100.0	100.0

“Whites” were less likely to report having had a toothache more than once in the past six months when biting or chewing than “American Indian/Alaskan Natives”, or children in the “all others” category (Chi-squared = 8.2869, 2 df, P=0.0159).

Table 30.**Proportion of respondents with dental insurance by Race/Ethnicity, Alaskan kindergarten children, 2007**

Race/Ethnicity	n	Proportion of respondents who have dental insurance	95% CI
White	478	.841	(.804, .872)
Black/African American	45	.844	(.705, .935)
Hispanic/Latino	44	.841	(.699, .934)
Asian	59	.780	(.653, .877)
American Indian/Alaskan Native	139	.712	(.629, .786)
Native Hawaiian/Pacific Islander	27	.852	(.663, .958)
Multi-racial	100	.780	(.686, .857)
All respondents	892	.811	(.783, .835)

A smaller proportion of parents/guardians of children classified as “American Indian/Alaskan Natives” reported having some type of dental insurance for their child than parents/guardians of Alaskan kindergarten children as a whole or children classified as “White”. In contrast to previous State Dental Surveys, this question on this survey did not include “IHS” or “Native Health Corporation/Tribal” coverage. On previous surveys this coverage was not checked by the majority (less than one third) of parents/guardians of children classified as “Native American/Alaskan Native”, even though they received such care. Coverage/receipt of care through Indian Health Service/Native Health Corporations/Tribal programs was solicited through a separate question (Question 6) on this survey.

Table 31.**Proportion of respondents with “commercial” dental insurance by Race/Ethnicity, Alaskan kindergarten children, 2007**

Race/Ethnicity	n	Proportion of respondents who have “commercial” dental insurance	95% CI
White	402	.557	(.507, .606)
Black/African American	38	.158	(.060, .313)
Hispanic/Latino	37	.324	(.180, .498)
Asian	46	.457	(.309, .610)
American Indian/Alaskan Native	99	.384	(.288, .487)
Native Hawaiian/Pacific Islander	23	.348	(.164, .573)
Multi-racial	78	.410	(.300, .527)
All respondents	723	.472	(.435, .509)

Among those with dental insurance, there were significant differences in the proportion of children who had commercial dental insurance when compared by Race/Ethnicity. A larger proportion of children classified as “White” reported having commercial dental insurance than children classified as “Black/African American”, “Hispanic/Latino”, or “American Indian/Alaskan Native”.

Table 32.

Proportion of respondents with “Denali KidCare/Medicaid” coverage by Race/Ethnicity, Alaskan kindergarten children, 2007

Race/Ethnicity	n	Proportion of respondents who have “Denali KidCare/Medicaid” coverage	95% CI
White	402	.224	(.185, .268)
Black/African American	38	.500	(.334, .666)
Hispanic/Latino	37	.405	(.248, .579)
Asian	46	.457	(.309, .610)
American Indian/Alaskan Native	99	.485	(.383, .587)
Native Hawaiian/Pacific Islander	23	.565	(.345, .768)
Multi-racial	78	.359	(.253, .476)
All respondents	723	.324	(.290, .359)

Among those with dental insurance, there were significant differences in the proportion of children who had “Denali KidCare/Medicaid” coverage when compared by Race/Ethnicity. A lower proportion of children classified as “White” reported having “Denali KidCare/Medicaid” coverage than Alaskan kindergarten children as a whole and than children classified as “Black/African American”, “Asian”, “American Indian/Alaskan Native”, or “Native Hawaiian/Pacific Islander”.

Table 33.

Proportion of respondents with “Military” dental insurance by Race/Ethnicity, Alaskan kindergarten children, 2007

Race/Ethnicity	n	Proportion of respondents who have “Military” dental coverage	95% CI
White	402	.127	(.097, .164)
American Indian/Alaskan Native	99	.030	(.006, .086)
All Others	222	.144	(.101, .197)
All respondents	723	.119	(.097, .145)

A lower proportion of respondents classified as “American Indian/Alaskan Native” had “Military” dental insurance than children classified as “White” or “all others”.

Table 34.

Proportion of respondents receiving care through an IHS/Native Health Corporation/tribal clinic by Race/Ethnicity, Alaskan kindergarten children, 2007

Race/Ethnicity	n	Proportion of respondents who receive care through an IHS/Native Health Corporation/tribal dental clinic	95% CI
White	448	.029	(.016, .050)
American Indian/Alaskan Native	135	.844	(.772, .901)
All Others	266	.147	(.106, .195)
All respondents	849	.196	(.170, .224)

In other reports, less than one-third of American Indian/Alaskan Native respondents indicated that they have IHS/Native Health Corporation coverage, although all were eligible. It was proposed that these respondents may not consider IHS coverage to be “insurance”, or they may not utilize these services. In this survey the question was reframed. A significantly greater proportion of children classified as “American Indian/Alaskan Native” reported receiving care at Native Health Corporation/tribal clinics than “Whites” and “all others”, and children classified as “all others” utilized these clinics more than “Whites”, as might be expected.

Table 35.

Proportion of respondents with medical insurance by Race/Ethnicity, Alaskan kindergarten children, 2007

Race/Ethnicity	n	Proportion of respondents who have medical insurance	95% CI
White	468	.844	(.807, .875)
American Indian/Alaskan Native	141	.716	(.634, .789)
All Others	259	.772	(.716, .822)
All respondents	868	.802	(.773, .828)

A significantly smaller proportion of parents/guardians of children classified as “American Indian/Alaskan Native” reported having medical insurance than those of children classified as “Whites”.

Table 36.

Proportion of participants with untreated dental caries by Race/Ethnicity, Alaskan kindergarten children, 2007

Race/Ethnicity	n	Proportion of participants who have untreated dental caries	95% CI
White	419	.193	(.157, .235)
American Indian/Alaskan Native	135	.370	(.289, .458)
All others	253	.257	(.204, .315)
Black/African American	38	.263	(.134, .431)
Hispanic/Latino	43	.209	(.100, .360)
Asian	55	.291	(.176, .429)
Native Hawaiian/Pacific Islander	25	.440	(.244, .651)
Multi-racial	91	.209	(.131, .307)
All respondents	807	.243	(.214, .274)

A higher proportion of participating “American Indian/Alaska Native” kindergartners had untreated dental caries than those classified as “White” and Alaskan kindergartners as a whole.

Table 37.

Proportion of participants with dental caries experience by Race/Ethnicity, Alaskan kindergarten children, 2007

Race/Ethnicity	n	Proportion of participants who have dental caries experience	95% CI
White	415	.311	(.267, .358)
American Indian/Alaskan Native	133	.669	(.582, .748)
All others	249	.438	(.375, .502)
Black/African American	38	.447	(.286, .617)
Hispanic/Latino	43	.326	(.191, .485)
Asian	53	.547	(.404, .684)
Native Hawaiian/Pacific Islander	24	.667	(.447, .844)
Multi-racial	90	.367	(.268, .475)
All respondents	797	.410	(.376, .445)

A lower proportion of “Whites” (38%) had dental caries experience than participating children in Alaska as a whole. A higher proportion of “American Indian/Alaskan Natives” (67%) and “Native Hawaiian/Pacific Islanders” (67%) had dental caries experience than Alaskan children as a whole and those classified as “White”.

Table 38.

Proportion of participants with dental caries experience on primary maxillary anterior teeth by Race/Ethnicity, Alaskan kindergarten children, 2007

Race/Ethnicity	n	Proportion of participants who have dental caries experience on primary maxillary anterior teeth	95% CI
White	415	.063	(.042, .092)
American Indian/Alaskan Native	130	.269	(.195, .354)
All others	244	.164	(.120, .216)
Black/African American	38	.184	(.077, .343)
Hispanic/Latino	41	.122	(.041, .262)
Asian	51	.216	(.113, .353)
Native Hawaiian/Pacific Islander	24	.292	(.126, .511)
Multi-racial	89	.112	(.055, .197)
All respondents	789	.128	(.106, .154)

A higher proportion of participating “American Indian/Alaskan Native” children (27%) had dental caries experience on primary anterior teeth than those classified as “White” or than participating Alaskan kindergarten children as a whole. A higher proportion of “Native Hawaiian/Pacific Islander” participants also had dental caries experience on these teeth, however sample size was marginal for comparisons to other groups.

Table 39.

Treatment urgency by Race/Ethnicity, Alaskan kindergarten children, 2007

Race		Treatment Urgency		
		No obvious problem	Early dental care or urgent care	Total
White	n	338	81	419
	row%	80.7	19.3	100.0
	col%	55.4	41.3	52.0
Black/African American	n	28	10	38
	row%	73.7	26.3	100.0
	col%	4.6	5.1	4.7
Hispanic/Latino	n	34	9	43
	row%	79.1	20.9	100.0
	col%	5.6	4.6	5.3
Asian	n	39	16	55
	row%	70.9	29.1	100.0
	col%	6.4	8.2	6.8
American Indian/Alaskan Native	n	85	50	135
	row%	63.0	37.0	100.0
	col%	13.9	25.5	16.7
Native Hawaiian/Pacific Islander	n	14	11	25
	row%	56.0	44.0	100.0
	col%	2.3	5.6	3.1
Multi-racial	n	72	19	91
	row%	79.1	20.9	100.0
	col%	11.8	9.7	11.3
All Races	n	610	196	806
	row%	75.7	24.3	100.0
	col%	100.0	100.0	100.0

There was insufficient cell size to assess even the combined race/ethnicity groupings in all categories of treatment urgency; those needing urgent care were combined with those needing early dental care.

That done, there were significant differences in treatment urgency between Race/Ethnicity groupings (Chi-squared = 24.4052, 6 df, P=0.0004). Children classified as “American Indian/Alaskan Native” were more likely to have treatment needs than others. Higher proportions of children classified as “Black/African American” and “Native Hawaiian/Pacific Islander” also had more treatment need, but sample size was small for these groups and comparisons should be made with caution.

Table 40.

Proportion of participants needing treatment by Race/Ethnicity, Alaskan kindergarten children, 2007

Race/Ethnicity	N	Proportion of participants needing treatment	95% CI
White	419	.193	(.157, .235)
American Indian/Alaskan Native	135	.370	(.289, .458)
All others	253	.257	(.204, .315)
Black/African American	38	.263	(.134, .431)
Hispanic/Latino	43	.209	(.100, .360)
Asian	55	.291	(.176, .429)
Native Hawaiian/Pacific Islander	25	.440	(.244, .651)
Multi-racial	91	.209	(.131, .307)
All races	807	.243	(.214, .274)

This is an alternative presentation to the data presented in Table 34, since with the collapse of the “urgency” groupings this can be presented as the proportion of participants needing treatment.

A significantly larger proportion of “American Indian/Alaskan Native” children responding needed some type of dental treatment when compared to those classified as “White” or than all Alaskan kindergartners as a whole. A higher proportion of children classified as “Native Hawaiian/Pacific Islanders” needed some type of care than those classified as “White”.

Table 41.

Number of quadrants needing treatment by Race/Ethnicity, Alaskan kindergarten children, 2007

Race/Ethnicity		0	1	2	3	4	Total
White	n	338	33	25	17	6	419
	row%	80.7	7.9	6.0	4.1	1.4	100.0
	col%	55.5	41.8	45.5	42.5	26.1	52.0
American Indian/Alaskan Native	n	85	22	13	7	8	135
	row%	63.0	16.3	9.6	5.2	5.9	100.0
	col%	14.0	27.8	23.6	17.5	34.8	16.7
All others	n	186	24	17	16	9	252
	row%	73.8	9.5	6.7	6.3	3.6	100.0
	col%	30.5	30.4	30.9	40.0	39.1	31.3
All participants	n	609	79	55	40	23	806
	row%	75.6	9.8	6.8	5.0	2.9	100.0
	col%	100.0	100.0	100.0	100.0	100.0	100.0

This table is presented for information and view of trends only. Cell size is too small in some cells for valid statistical analysis.

The “collapsed” Race/Ethnicity variable was again used because there was insufficient cell size in the more distributed variable; and, in fact, cell sizes are still small: they are presented anyway since none were non-existent. This table should be used cautiously.

Eighty percent of children classified as “White” needed no quadrant-level treatment, compared to 63% of “American Indian/Alaskan Natives” and 74% of “All Others”, and they had fewer treatment needs at every level of quadrants needing care.

Table 42.

Mean number of quadrants needing treatment by Race/Ethnicity, Alaskan kindergarten children, 2007

Race/Ethnicity	n	Mean number of quadrants needing treatment	Std. Deviation
White	419	.38 (0-4)	0.8783
American Indian/Alaskan Native	135	.75 (0-4)	1.1890
All others	253	.56 (0-4)	1.0916
Black/African American	38	.63 (0-4)	1.1722
Hispanic/Latino	43	.47 (0-4)	1.0316
Asian	55	.60 (0-4)	1.0818
Native Hawaiian/Pacific Islander	25	1.36 (0-4)	1.6553
Multi-racial	91	.34 (0-4)	.7777
All races	807	0.50 (0-4)	1.0134

Means are NOT normally distributed; Kruskal-Wallis H = 27.6730 6 df P=0.0001. This table highlights Table 41, with “White” and “Multi-racial” children requiring treatment for fewer quadrants than children in other Race/Ethnicity groupings.

Response Differences by Dental Insurance Status

Tables addressing gender (Table 24) and race/ethnicity (Table 30) and insurance status have already been presented and are not repeated here.

Individual tables are not reported for variables that revealed no statistical differences in results when compared by dental insurance status. These variables are listed in Table 43. For both questionnaire and clinical variables, only records with meaningful responses were tabulated (all “unknown” and “blank” responses were ignored). This yields varying numbers of records for different variables, as respondents were not required to answer all questions. P-values (Chi-square) are presented for multi-level variables and Odds Ratios (OR) with 95% Confidence Intervals for two-level variables. Insurance = “Yes” and the “Yes” dependent response (when applicable) were placed in the default table positions.

Table 43.

Variables with insignificant differences between results when compared by dental insurance status, Alaskan kindergarten children, 2007

Variable	P-Value	OR (95% CI)
Age (in months)	0.0823	
Tooth pain		0.67 (0.35, 1.28)
Untreated Dental Caries		0.95 (0.63, 1.45)
Dental Caries Experience		0.85 (0.59, 1.22)
Dental Caries Experience on maxillary primary anterior teeth		0.83 (0.49, 1.39)
Treatment Urgency ¹		1.05 (0.69, 1.59)
Mean number of quadrants needing treatment	0.4050	

¹ Urgency categories “early dental care” and “urgent care” were combined due to small sample size

There were too few respondents (104) reporting on Question 3(subset), reasons for the inability to obtain care (eight choices), to make assessments by dental insurance status meaningful. See Table 47 for a subset of choices in this question.

Table 44.

Length of time since last dental visit and dental insurance status, Alaskan kindergarten children 2007

Dental Insurance Status		Length of Time since last dental visit				Total
		6 months or less	6 months to 1 year	1-3 years	> 3years or never has been to dentist	
Yes	n	367	141	99	111	718
	row%	51.1	19.6	13.8	15.5	100.0
	col%	85.2	77.9	76.7	75.5	80.9
No	n	64	40	30	36	170
	row%	37.6	23.5	17.6	21.2	100.0
	col%	14.8	22.1	23.3	24.5	19.1
All	n	431	181	1294	147	888
	row%	48.5	20.4	14.5	16.6	100.0
	col%	100.0	100.0	100.0	100.0	100.0

Due to small cell sizes, responses for “More than 3 years ago” and “Never has been to the dentist” were combined.

There were significant differences in the length of time since the last dental visit by insurance status (Chi-squared = 10.2802, 3 df, P=0.0163). Children with dental insurance coverage were more apt to have had a dental visit within the past six months than children without insurance, and less likely to have had their last visit in each greater time period than their peers without dental insurance.

Table 45.

Reason for last dental visit and dental insurance status, Alaskan kindergarten children, 2007

Insurance		Reason for last dental visit				
		Something was wrong	Went for treatment	Went on own for exam	Was called in for exam	Total
Yes	n	31	66	475	45	617
	row%	5.0	10.7	77.0	7.3	100.0
	col%	67.4	73.3	85.3	75.0	81.9
No	n	15	24	82	15	136
	row%	11.0	17.6	60.3	11.0	100.0
	col%	32.6	26.7	14.7	25.0	18.1
Total	n	46	90	557	60	753
	row%	6.1	12.0	74.0	8.0	100.0
	col%	100.0	100.0	100	100.0	100.0

There were significant differences in the reason reported for the last dental visit between insurance status groupings (Chi-squared = 17.2311, 3 df, P=0.0006). Participating children who had dental insurance were less likely to report that their last visit was because “Something was wrong, bothering or hurting”, that they “went for treatment”, or were “called in for an exam” and more likely to have gone in on their own for an exam than participating children without insurance.

Table 46.

Inability to obtain needed dental care and dental insurance status, Alaskan kindergarten children, 2007

Dental insurance status		Unable to obtain needed dental care in past 12 months		
		Yes	No	Total
Yes	n	73	634	707
	row%	10.3	89.7	100.0
	col%	70.2	82.7	81.2
No	n	31	133	164
	row%	18.9	81.1	100.0
	col%	29.8	17.3	18.8
Total	n	104	767	871
	row%	11.9	88.1	100.0
	col%	100.0	100.0	100.0

Responding children who had dental insurance were half as likely to have reported an inability to obtain needed care in the past 12 months (OR=0.49, 95% Confidence Interval 0.31, 0.78) than their peers without dental insurance.

Table 47.

Native Health Corporation/Tribal care and dental insurance status, Alaskan kindergarten children, 2007

Dental insurance status		Receipt of care through a Native Health Corporation/Tribal clinic		
		Yes	No	Total
Yes	n	109	570	679
	row%	16.1	83.9	100.0
	col%	67.3	83.6	80.5
No	n	53	112	165
	row%	32.1	67.9	100.0
	col%	32.7	16.4	19.5
Total	n	162	682	844
	row%	19.2	80.8	100.0
	col%	100.0	100.0	100.0

Children who had dental insurance were less likely to have reported obtaining care at a Native Health Corporation/Tribal clinic (OR=0.40, 95% Confidence Interval 0.27, 0.59) than children without dental insurance.

This table should be viewed with caution, as the primary recipients of care at these clinics are “American Indian/Alaskan Natives”. If this table is generated using only respondents classified as “American Indian/Alaskan Native”, the OR, while similar, loses statistical significance (OR=0.37, (0.10, 1.35)), indicating that Race/Ethnicity may confound this measure.

Table 48.

Medical/surgical insurance and dental insurance status, Alaskan kindergarten children, 2007

Dental Insurance Status		Medical Insurance Status		Total
		Yes	No	
Yes	n	649	52	701
	row%	92.6	7.4	100.0
	col%	93.9	30.2	81.2
No	n	42	120	162
	row%	25.9	74.1	100.0
	col%	6.1	69.8	18.8
Total	n	691	172	863
	row%	80.1	19.9	100.0
	col%	100.0	100.0	100.0

Children who had dental insurance were far, far more likely to have medical/surgical insurance coverage (OR=35.66, 95% Confidence Interval 22.72, 55.97) than children without dental insurance.

Response Differences by Denali KidCare/Medicaid Status

In previous tables, differences by Denali KidCare/Medicaid status were based upon responses from the subset of participants that indicated that they had some type of dental insurance. For this group of analyses, the entire sample was used for comparisons: children who reported that they had Denali KidCare/Medicaid were compared to all others, regardless of reported status for “insurance”. Since the analytical sample was slightly different, results may be slightly skewed as well.

Individual tables are not reported for variables that revealed no statistical differences in results when compared by dental insurance status. These variables are listed in Table 49. For both questionnaire and clinical variables, only records with meaningful responses were tabulated (all “unknown” and “blank” responses were ignored). This yields varying numbers of records for different variables, as respondents were not required to answer all questions. P-values (Chi-square) are presented for multi-level variables and Odds Ratios (OR) with 95% Confidence Intervals for two-level variables. Denali KidCare/Medicaid = “Yes” and “Yes” responses to dependent variables, where appropriate, were placed in the default table positions.

Table 49.

Variables with insignificant differences between results when compared by Denali KidCare/Medicaid status, Alaskan kindergarten children, 2007

Variable	P-Value	OR (95% CI)
Age (in months)	0.5630	
Length of time since last reported dental visit	0.0736	
Tooth pain		1.60 (0.89, 2.90)
Mean number of quadrants needing treatment	0.1112	

There were too few respondents (104) reporting on Question 3(subset), reasons for the inability to obtain care (eight choices), to make assessments by dental insurance status meaningful.

Table 50.

Reason for last dental visit and Denali KidCare/Medicaid status, Alaskan kindergarten children, 2007

Denali KidCare/Medicaid		Reason for last dental visit				Total
		Something was wrong	Went for treatment	Went on own for exam	Was called in for exam	
Yes	n	18	31	130	18	197
	row%	9.1	15.7	66.0	9.1	100.0
	col%	37.5	33.3	22.9	29.5	25.6
No	n	30	62	437	43	572
	row%	5.2	10.8	76.4	7.5	100.0
	col%	62.5	66.7	77.1	70.5	74.4
Total	n	48	93	567	61	769
	row%	6.2	12.1	73.7	7.9	100.0
	col%	100.0	100.0	100	100.0	100.0

There were significant differences in the reason reported for the last dental visit and Denali KidCare/Medicaid coverage (Chi-squared = 9.0998, 3 df, P=0.0280). Participating children who had Denali KidCare/Medicaid were more likely to report that their last visit was because “Something was wrong, bothering or hurting”, that they “went for treatment”, or were “called in for an exam” and less likely to have gone in on their own for an exam than participating children without this coverage.

Table 51.

Inability to obtain needed dental care and Denali KidCare/Medicaid status, Alaskan kindergarten children, 2007

Denali KidCare/Medicaid status		Unable to obtain needed dental care in past 12 months		
		Yes	No	Total
Yes	n	39	189	228
	row%	17.1	82.9	100.0
	col%	37.5	24.0	25.6
No	n	65	598	663
	row%	9.8	90.2	100.0
	col%	62.5	76.0	74.4
Total	n	104	787	891
	row%	11.7	88.3	100.0
	col%	100.0	100.0	100.0

Responding children who had Denali KidCare/Medicaid coverage were twice as likely to have reported an inability to obtain needed care in the past 12 months (OR=1.90, 95% Confidence Interval 1.24, 2.92) than their peers without this coverage.

Table 52.

Native Health Corporation/Tribal care and Denali KidCare/Medicaid status, Alaskan kindergarten children, 2007

Denali KidCare/Medicaid status		Receipt of care through a Native Health Corporation/Tribal clinic		
		Yes	No	Total
Yes	n	54	171	225
	row%	24.0	76.0	100.0
	col%	32.5	24.9	26.4
No	n	112	515	627
	row%	17.9	82.1	100.0
	col%	67.5	75.1	73.6
Total	n	166	686	852
	row%	19.5	80.5	100.0
	col%	100.0	100.0	100.0

Children who had Denali KidCare/Medicaid were more likely to have reported obtaining care at a Native Health Corporation/Tribal clinic (OR=1.45, 95% Confidence Interval 1.01, 2.10) than children without dental insurance.

This table should be viewed with caution, as the primary recipients of care at these clinics are “American Indian/Alaskan Natives”. If this table is generated using only respondents classified as “American Indian/Alaskan Native”, the OR becomes dissimilar and loses statistical significance (OR=0.96, (0.36, 2.58)), indicating that Race/Ethnicity may confound this measure.

Table 53.

Medical/surgical insurance and Denali KidCare/Medicaid status, Alaskan kindergarten children, 2007

Denali KidCare/Medicaid Status		Medical Insurance Status		Total
		Yes	No	
Yes	n	199	27	226
	row%	88.1	11.9	100.0
	col%	28.5	15.6	25.9
No	n	499	146	645
	row%	77.4	22.6	100.0
	col%	71.5	84.4	74.1
Total	n	698	173	871
	row%	80.1	19.9	100.0
	col%	100.0	100.0	100.0

Children who had Denali KidCare/Medicaid coverage were more likely to report that they also have medical/surgical insurance coverage (OR=2.16, 95% Confidence Interval 1.39, 3.36) than children without this coverage, which is not surprising since this service provides both medical and dental coverage.

Table 54.

Denali KidCare/Medicaid status and untreated dental caries, Alaskan kindergarten children, 2007

Denali KidCare/ Medicaid Status		Untreated Dental Caries		Total
		Yes	No	
Yes	n	63	148	211
	row%	29.9	70.1	100.0
	col%	32.1	24.2	26.1
No	n	133	463	596
	row%	22.3	77.7	100.0
	col%	67.9	75.8	73.9
Total	n	196	611	807
	row%	24.3	75.7	100.0
	col%	100.0	100.0	100.0

Children who had Denali KidCare/Medicaid were more likely to have untreated dental caries than children without this benefit (OR=1.48, 95% confidence interval 1.04, 2.11).

Table 55.

Proportion of participants with Denali KidCare/Medicaid coverage and untreated dental caries by race/ethnicity, Alaskan kindergarten children, 2007

Race/Ethnicity	n	Proportion of participants with Denali KidCare/Medicaid who have untreated dental caries	95% CI
White	82	.232	(.146, .338)
American Indian/Alaskan Native	44	.477	(.325, .633)
All others	85	.271	(.180, .378)
<i>Black/African American</i>	15	.400	(.163, .677)
<i>Hispanic/Latino</i>	13	.308	(.091, .614)
<i>Asian</i>	20	.150	(.032, .379)
<i>Native Hawaiian/Pacific Islander</i>	12	.500	(.211, .789)
<i>Multi-racial</i>	25	.160	(.045, .361)
All respondents	211	.299	(.238, .365)

Of respondents with Denali KidCare/Medicaid coverage, there is a suggestion of differences in the proportion of children with untreated dental caries by race/ethnicity, but this difference is not statistically significant. A larger sample size may substantiate actual differences.

Table 56.

Denali KidCare/Medicaid status and dental caries experience, Alaskan kindergarten children, 2007

Denali KidCare/ Medicaid Status		Dental caries experience		Total
		Yes	No	
Yes	n	115	96	211
	row%	54.5	45.5	100.0
	col%	35.2	20.4	26.5
No	n	212	374	586
	row%	36.2	63.8	100.0
	col%	64.8	79.6	73.5
Total	n	327	470	797
	row%	41.0	59.0	100.0
	col%	100.0	100.0	100.0

Children who had Denali KidCare/Medicaid were more than twice as likely to have dental caries experience than children without this benefit (OR=2.11, 95% Confidence Interval (1.54, 2.91)).

Table 57.

Proportion of participants with Denali KidCare/Medicaid coverage and dental caries experience by race/ethnicity, Alaskan kindergarten children, 2007

Race/Ethnicity	n	Proportion of participants with Denali KidCare/Medicaid who have dental caries experience	95% CI
White	82	.378	(.273, .492)
American Indian/Alaskan Native	44	.818	(.673, .918)
All others	85	.565	(.453, .672)
<i>Black/African American</i>	15	.600	(.323, .837)
<i>Hispanic/Latino</i>	13	.615	(.316, .861)
<i>Asian</i>	20	.600	(.361, .809)
<i>Native Hawaiian/Pacific Islander</i>	12	.750	(.428, .945)
<i>Multi-racial</i>	25	.400	(.211, .613)
All respondents	211	.545	(.475, .614)

Of respondents with Denali KidCare/Medicaid coverage, a higher proportion of children classified as “American Indian/Alaskan Native” had dental caries experience than children classified as “White”, “All Others”, or participants with this coverage as a group. There is a suggestion of differences in the proportion of children with dental caries experience by race/ethnicity for other groupings, but these differences are not statistically significant. A larger sample size may substantiate actual differences between other race/ethnicity classifications.

Table 58.

Denali KidCare/Medicaid status and dental caries experience on primary maxillary anterior teeth, Alaskan kindergarten children, 2007

Denali KidCare/ Medicaid Status		Dental caries experience on maxillary anterior teeth		Total
		Yes	No	
Yes	n	44	167	211
	row%	20.9	79.1	100.0
	col%	43.6	24.3	26.7
No	n	57	521	578
	row%	9.9	90.1	100.0
	col%	56.4	75.7	73.3
Total	n	101	688	789
	row%	12.8	87.2	100.0
	col%	100.0	100.0	100.0

Children who had Denali KidCare/Medicaid were almost two and one-half times as likely to have dental caries experience on their maxillary anterior teeth than children without this benefit (OR=2.41, 95% Confidence Interval (1.57, 3.70)).

Table 59.

Proportion of participants with Denali KidCare/Medicaid coverage and dental caries experience on primary maxillary anterior teeth by Race/Ethnicity, Alaskan kindergarten children, 2007

Race/Ethnicity	n	Proportion of participants with Denali KidCare/Medicaid who have dental caries experience on primary maxillary anterior teeth	95% CI
White	82	.110	(.051, .198)
American Indian/Alaskan Native	44	.318	(.186, .476)
All others	85	.247	(.160, .353)
<i>Black/African American</i>	15	.333	(.118, .616)
<i>Hispanic/Latino</i>	13	.308	(.091, .614)
<i>Asian</i>	20	.100	(.012, .317)
<i>Native Hawaiian/Pacific Islander</i>	12	.417	(.152, .723)
<i>Multi-racial</i>	25	.200	(.068, .407)
All respondents	211	.209	(.156, .270)

Of respondents with Denali KidCare/Medicaid coverage, there is a suggestion of differences in the proportion of children with dental caries experience on primary maxillary anterior teeth by race/ethnicity, but this difference is not statistically significant. A larger sample size may substantiate actual differences.

Table 60.

Denali KidCare/Medicaid status and treatment urgency, Alaskan kindergarten children, 2007

Denali KidCare/ Medicaid Status		Treatment urgency		Total
		No obvious problem	Early dental care/ urgent care	
Yes	n	148	63	211
	row%	70.1	29.9	100.0
	col%	24.2	32.1	26.1
No	n	463	133	596
	row%	77.7	22.3	100.0
	col%	75.8	67.9	73.9
Total	n	611	196	807
	row%	75.7	24.3	100.0
	col%	100.0	100.0	100.0

Due to small cell sizes, responses for “Early dental care” and “Urgent dental care” were combined for analysis.

There were significant differences in Denali KidCare/Medicaid status and treatment urgency scores (Odds Ratio = 0.67, 95% Confidence Interval (0.47, 0.96)). A higher proportion of children with Denali KidCare/Medicaid coverage required some type of dental care, and a smaller proportion had no obvious problems when compared with their peers without this benefit.

Table 61.

Denali KidCare/Medicaid status and treatment urgency, all categories, Alaskan kindergarten children, 2007

Denali KidCare/ Medicaid Status		Treatment urgency			Total
		No obvious problem	Early dental care	Urgent care	
Yes	n	148	59	4	211
	row%	70.1	28.0	1.9	100.0
	col%	24.2	33.3	21.1	26.1
No	n	463	118	15	596
	row%	77.7	19.8	2.5	100.0
	col%	75.8	66.7	78.9	73.9
Total	n	611	177	19	807
	row%	75.7	21.9	2.4	100.0
	col%	100.0	100.0	100.0	100.0

This table is presented for informational purposes as an expansion of the collapsed categories given in the previous table.

This table indicates that a higher proportion of children with Denali KidCare/Medicaid coverage require early dental care than their peers without coverage. It also indicates that a smaller proportion of children with this coverage require urgent care; cell size makes it difficult, however, to draw any realistic conclusions about the relationships between Denali KidCare coverage and urgent care needs.

Alaska State Oral Health Assessment, 2007 Kindergarten Data

Differences by Clinical Variables:

Untreated Dental Caries

The relationships between untreated dental caries and gender (Table 24), race/ethnicity (Table 36), dental insurance status (Table 43), and Denali KidCare/Medicaid status (Table 54) have already been presented and are not repeated here.

Individual tables are not reported for variables that revealed no statistical differences in results when compared by untreated dental caries status. These variables are listed in Table 62. For both questionnaire and clinical variables, only records with meaningful responses were tabulated (all “unknown” and “blank” responses were ignored). This yields varying numbers of records for different variables, as respondents were not required to answer all questions. P-values (Chi-square) are presented for multi-level variables and Odds Ratios (OR) with 95% Confidence Intervals for two-level variables. ANOVA tests for population means were used for continuous variables. Untreated dental caries = “Yes” and “Yes” responses to dependent variables, where appropriate, were placed in the default table positions.

Table 62.

Variables with insignificant differences between results when compared by the presence/absence of untreated dental caries, Alaskan kindergarten children, 2007

Variable*	P-Value	OR (95% CI)
Age (mean age in months)	0.1854	
Respondents with medical insurance		1.00 (0.66, 1.52)

There were too few respondents (93) reporting on Question 3(subset), reasons for the inability to obtain care (eight choices), to make assessments by Untreated Dental Caries status meaningful.

Table 63.

Length of time since last dental visit and untreated dental caries status, Alaskan kindergarten children, 2007

Untreated dental caries		Length of time since last dental visit				Total
		6 months or less	6 months to 1 year	1-3 years	> 3years or never has been to dentist	
Yes	n	66	43	44	41	194
	row%	34.0	22.2	22.7	21.1	100.0
	col%	17.0	27.7	36.7	30.8	24.3
No	n	323	112	76	92	603
	row%	53.6	18.6	12.6	15.3	100.0
	col%	83.0	72.3	63.3	69.2	75.7
All	n	389	155	120	133	797
	row%	48.8	19.4	15.1	16.7	100.0
	col%	100.0	100.0	100.0	100.0	100.0

Due to small cell sizes, responses for “More than 3 years ago” and “Never has been to the dentist” were combined.

There were significant differences in the length of time since the last dental visit by untreated dental caries status (Chi-squared = 25.3977, 3 df, P=0.0000). Children with untreated dental caries were less apt to have had a dental visit within the past six months than children without untreated caries, and more likely to have had their last visit more than one year previously than participants with no untreated dental caries.

Table 64.

Reason for last dental visit and untreated dental caries status, Alaskan kindergarten children, 2007

Untreated Dental Caries		Reason for Last Dental Visit				Total
		Something was wrong	Went for routine treatment	Went on own for exam	Called in for exam	
Yes	n	14	31	103	9	157
	row%	8.9	19.7	65.6	5.7	100.0
	col%	31.8	37.3	20.9	16.1	23.3
No	n	30	52	389	47	518
	row%	5.8	10.0	75.1	9.1	100.0
	col%	68.2	62.7	79.1	83.9	76.7
Total	n	44	83	492	56	675
	row%	6.5	12.3	72.9	8.3	100.0
	col%	100.0	100.0	100.0	100.0	100.0

There were significant differences in the reason for the last reported dental visit and untreated dental caries status (Chi-squared = 14.1476, 3 df, P=0.0027). A greater proportion of children with untreated dental caries had their last visit because “Something was wrong” or for routine treatment, as might be expected. A greater proportion of children with no untreated caries had their last visit for an exam that they (or their parent/guardian) had initiated when compared to children who had untreated dental caries.

Table 65.

Inability to obtain needed dental care in the past 12 months and untreated dental caries status, Alaskan kindergarten children, 2007

Untreated dental caries		Unable to obtain needed dental care in the past 12 months		Total
		Yes	No	
Yes	n	38	151	189
	row%	20.1	79.9	100.0
	col%	40.9	21.9	24.2
No	n	55	537	592
	row%	9.3	90.7	100.0
	col%	59.1	78.1	75.8
Total	n	93	688	781
	row%	11.9	88.1	100.0
	col%	100.0	100.0	100.0

Parents/guardians of children who had untreated dental caries were more than twice as likely to have reported difficulty in obtaining dental care when their child needed it in the past 12 months as those of children with no untreated dental caries (OR=2.46, 95% Confidence Interval 1.56, 3.86).

Table 66.

Respondents reporting tooth pain and untreated dental caries status, Alaskan kindergarten children, 2007

Untreated Dental Caries Status		Child reported toothache >1 time in past 6 months		Total
		Yes	No	
Untreated Dental Caries	n	19	171	190
	row%	10.0	90.0	100.0
	col%	43.2	23.3	24.4
No Untreated Dental Caries	n	25	563	588
	row%	4.3	95.7	100.0
	col%	56.8	76.7	75.6
Total	n	44	734	778
	row%	5.7	94.3	100.0
	col%	100.0	100.0	100.0

Participants who had untreated dental caries were more than twice as likely to have reported tooth pain more than once in the past six months as children with no untreated dental caries (OR=2.50, 95% confidence interval 1.35, 4.65).

Table 67.

Untreated dental caries and Native Health Corporation/Tribal care, Alaskan kindergarten children, 2007

Untreated Dental Caries		Receipt of care through a Native Health Corporation/Tribal clinic		
		Yes	No	Total
Yes	n	47	136	183
	row%	25.7	74.3	100.0
	col%	31.5	22.9	24.6
No	n	102	459	561
	row%	18.2	81.8	100.0
	col%	68.5	77.1	75.4
Total	n	149	595	744
	row%	20.0	80.0	100.0
	col%	100.0	100.0	100.0

Participants with untreated dental caries were more likely to have reported obtaining care at a Native Health Corporation/Tribal clinic (OR=1.56, 95% Confidence Interval 1.05, 2.31) than children without untreated dental caries.

This table should be viewed with caution, as the primary recipients of care at these clinics are “American Indian/Alaskan Natives”. If this table is generated using only respondents classified as “American Indian/Alaskan Native”, the OR, while similar, loses statistical significance (OR=1.88, (0.63, 5.56)), indicating that Race/Ethnicity may confound this measure.

Table 68.**Caries experience of participants with no untreated dental caries, Alaskan kindergarten children, 2007**

	Frequency	Percent	95% CI
Caries Experience	131	21.8	(18.6, 25.4)
Caries Free	470	78.2	(74.6, 81.4)
Total	601	100.0	

This table is presented only for informational purposes. About 76% of children assessed (611 of 807) had no untreated caries. (Ten of these children were not scored on the caries experience measure.) It is interesting to note that over three-quarters of these children (and over half of the 807 children scored) were caries free (never had a cavity).

Table 69.**Untreated dental caries status and caries experience on primary maxillary anterior teeth, Alaskan kindergarten children, 2007**

Untreated Dental Caries Status		Caries Experience on Primary Maxillary Anterior Teeth		Total
		Yes	No	
Untreated Dental Caries	n	71	117	188
	row%	37.8	62.2	100.0
	col%	70.3	17.0	23.8
No Untreated Dental Caries	n	30	571	601
	row%	5.0	95.0	100.0
	col%	29.7	83.0	76.2
Total	n	101	688	789
	row%	12.8	87.2	100.0
	col%	100.0	100.0	100.0

Participants who had untreated dental caries were 11 times more likely to have caries experience on maxillary anterior teeth than those with no untreated dental caries (OR 11.55 95% Confidence Interval 7.21, 18.50).

Table 70.

Treatment urgency among children with untreated dental caries, Alaskan kindergarten children, 2007

Treatment Urgency	Number of Respondents	Percent	95% CI
No obvious problem	0	0	
Early dental care (within weeks)	177	90.3	(85.3, 94.1)
Urgent care (within 24 hours)	19	9.7	(5.9, 14.7)
Total	196	100.0	

Of the 196 children with untreated dental caries, 19 (about 10%) required urgent dental care. The vast majority (90%) required more routine care.

Among children with no untreated caries, all were scored as having no obvious problems (urgency="0").

Table 71.

Untreated dental caries and number of quadrants needing treatment, Alaskan kindergarten children, 2007

Number of quadrants needing treatment	Number of respondents	Percent	95% CI
0	0	0	
1	79	40.3	(33.4, 47.5)
2	55	28.1	(21.9, 34.9)
3	40	20.4	(15.0, 26.7)
4	22	11.2	(7.2, 16.5)
Total	196	100.0	

About 40% of children that had untreated dental caries needed only one quadrant of treatment. The remaining 60% reflect a significant needs burden in this population.

Of the 611 children with no untreated dental caries, one was reported to need four quadrants of dental treatment. Since "urgency" for this child was scored as "0" (no obvious problem), this child probably required some type of preventive treatment or treatment of a low-level issue such as space management.

Dental Caries Experience

Dental caries experience and Gender (Table 24), Race/Ethnicity (Table 37), insurance status (Table 43), Denali KidCare/Medicaid status (Table 56) and untreated dental caries (Table 69) have already been presented and are not duplicated here.

Individual tables are not reported for variables that revealed no statistical differences in results when compared by untreated dental caries status. These variables are listed in Table 72. For both questionnaire and clinical variables, only records with meaningful responses were tabulated (all “unknown” and “blank” responses were ignored). This yields varying numbers of records for different variables, as respondents were not required to answer all questions. P-values (Chi-square) are presented for multi-level variables and Odds Ratios (OR) with 95% Confidence Intervals for two-level variables. ANOVA tests for population means were used for continuous variables. Untreated dental caries = “Yes” and “Yes” responses to dependent variables, where appropriate, were placed in the default table positions.

When reviewing these tables, it is important to remember that this variable is inclusive of children with untreated dental caries, which may mask findings for the subset of children who have dental caries experience but no untreated dental caries. Future analyses may choose to focus on this group of children compared to children who are caries free (“Dental Caries Experience” = No)

Table 72.

Variables with insignificant differences between results when compared by the presence/absence of dental caries experience, Alaskan kindergarten children, 2007

Variable	P-Value	OR (95% CI)
Gender (males are in default table position)		1.22 (0.92, 1.62)

There were too few respondents (90) reporting on Question 3(subset), reasons for the inability to obtain care (eight choices), to make assessments by Dental Caries Experience status meaningful.

Table 73.

Mean age (in months) of respondents participating in the clinical assessment by dental caries experience, Alaskan kindergarten children, 2007

Dental Caries Experience	Age in months (range)	Std. Deviation
Yes (n=327)	67.8 (50-83)	4.6925
No (n=470)	66.9 (55-80)	4.0599
Both (n=797)	67.3 (50-83-85)	4.3516

Children with dental caries experience tended to be slightly older than their peers who were caries-free. (Kruskal-Wallis H = 6.7725, 1df P=0.0093)

Table 74.

Length of time since last dental visit and dental caries experience, Alaskan kindergarten children, 2007

Dental Caries Experience		Length of time since last dental visit				Total
		6 months or less	6 months to 1 year	1-3 years	> 3years or never has been to dentist	
Yes	n	140	73	60	49	322
	row%	43.5	22.7	18.6	15.2	100.0
	col%	36.6	47.4	50.0	37.4	40.9
No	n	242	81	60	82	465
	row%	52.0	17.4	12.9	17.6	100.0
	col%	63.4	52.6	50.0	62.6	59.1
All	n	382	154	120	131	787
	row%	48.5	19.6	15.2	16.6	100.0
	col%	100.0	100.0	100.0	100.0	100.0

Due to small cell sizes, responses for “More than 3 years ago” and “Never has been to the dentist” were combined.

There were significant differences in the length of time since the last dental visit by dental caries experience (Chi-squared = 10.3215, 3 df, P=0.0160). Children with dental caries experience were less apt to have had a dental visit within the past six months than children without untreated caries, and more likely to have had their last visit more than one year previously than participants with no untreated dental caries.

Table 75.

Length of time since last dental visit and dental caries experience among children with no untreated caries, Alaskan kindergarten children, 2007

Dental Caries Experience		Length of time since last dental visit				Total
		6 months or less	6 months to 1 year	1-3 years	> 3years or never has been to dentist	
Yes	n	74	30	16	8	128
	row%	57.8	23.4	12.5	6.3	100.0
	col%	23.4	27.0	21.1	8.9	21.6
No	n	242	81	60	82	465
	row%	52.0	17.4	12.9	17.6	100.0
	col%	76.6	73.0	78.9	91.1	78.4
All	n	316	111	76	90	593
	row%	53.3	18.7	12.8	15.2	100.0
	col%	100.0	100.0	100.0	100.0	100.0

Due to small cell sizes, responses for “More than 3 years ago” and “Never has been to the dentist” were combined.

When controlling for children with untreated dental caries, there were still significant differences in the length of time since the last dental visit by dental caries experience (Chi-squared = 11.1530, 3 df, P=0.0109), but in this group, a higher proportion of children **with** dental caries experience had their last dental visit within the past six months and within the past year than their peers who were caries-free. They were less likely to have had a visit more than three years ago or never than participants who were caries free, indicating that dental symptoms were a possible driver of dental visits for this group. Among participants who were caries-free, almost 20% reported that their last visit was more than three years ago or never.

Table 76.

Reason for last dental visit and dental caries experience, Alaskan kindergarten children, 2007

Dental Caries Experience		Reason for Last Dental Visit				Total
		Something was wrong	Went for routine treatment	Went on own for exam	Called in for exam	
Yes	n	29	58	169	20	276
	row%	10.5	21.0	61.2	7.2	100.0
	col%	67.4	71.6	34.8	35.7	41.4
No	n	14	23	317	36	390
	row%	3.6	5.9	81.3	9.2	100.0
	col%	32.6	28.4	65.2	64.3	58.6
Total	n	43	81	486	56	666
	row%	6.5	12.2	73.0	8.4	100.0
	col%	100.0	100.0	100.0	100.0	100.0

There were significant differences in the reason for the last reported dental visit and dental caries experience (Chi-squared = 52.0077, 3 df, P=0.0000). A greater proportion of children with dental caries experience had their last visit because “Something was wrong” or for “routine treatment”. A greater proportion of children with no dental caries experience had their last visit for an exam that they (or their parent/guardian) had initiated when compared to children who had dental caries experience.

Table 77.

Reason for last dental visit and dental caries experience among children with no untreated caries, Alaskan kindergarten children, 2007

Dental Caries Experience		Reason for Last Dental Visit				Total
		Something was wrong	Went for routine treatment	Went on own for exam	Called in for exam	
Yes	n	15	27	66	11	119
	row%	12.6	22.7	55.5	9.2	100.0
	col%	51.7	54.0	17.2	23.4	23.4
No	n	14	23	317	36	390
	row%	3.6	5.9	81.3	9.2	100.0
	col%	48.3	46.0	82.8	76.6	76.6
Total	n	29	50	383	47	509
	row%	5.7	9.8	75.2	9.2	100.0
	col%	100.0	100.0	100.0	100.0	100.0

When controlling for children with untreated dental caries, there were still significant differences in the reason for the last reported dental visit and dental caries experience (Chi-squared = 47.2567, 3 df, P=0.0000). A greater proportion of children with dental caries experience had their last visit because “Something was wrong” or for routine treatment even when they had had no untreated caries at their screening exam. A greater proportion of children with no dental caries experience had their last visit for an exam that they (or their parent/guardian) had initiated when compared to children who had dental caries experience.

Table 78.**Inability to obtain needed dental care in the past 12 months and dental caries experience, Alaskan kindergarten children, 2007**

Dental Caries Experience		Unable to obtain needed dental care in the past 12 months		Total
		Yes	No	
Yes	n	58	260	318
	row%	18.2	81.8	100.0
	col%	64.4	38.2	41.2
No	n	32	421	453
	row%	7.1	92.9	100.0
	col%	35.6	61.8	58.8
Total	n	90	681	771
	row%	11.7	88.3	100.0
	col%	100.0	100.0	100.0

Parents/guardians of children who had dental caries experience were almost three times as likely to have reported difficulty in obtaining dental care when their child needed it in the past 12 months as those of children who were caries free (OR=2.93, 95% Confidence Interval 1.86, 4.64). It is again important to remember that children with dental caries experience are inclusive of children with untreated caries, which may influence conclusions based upon this finding.

Table 79.

Inability to obtain needed dental care in the past 12 months and dental caries experience among children with no untreated dental caries, Alaskan kindergarten children, 2007

Dental Caries Experience		Unable to obtain needed dental care in the past 12 months		Total
		Yes	No	
Yes	n	20	109	129
	row%	15.5	84.5	100.0
	col%	38.5	20.6	22.2
No	n	32	421	453
	row%	7.1	92.9	100.0
	col%	61.5	79.4	77.8
Total	n	52	530	582
	row%	8.9	91.1	100.0
	col%	100.0	100.0	100.0

When children with untreated dental caries are removed from the analysis, parents/guardians of children who had dental caries experience were still almost two and a half times as likely to have reported difficulty in obtaining dental care when their child needed it in the past 12 months as those of children who were caries free (OR=2.41, 95% Confidence Interval 1.34, 4.39), indicating that access to care is a persistent issue for children in need of dental care, even if that care is eventually obtained.

Table 80.

Dental caries experience and tooth pain, Alaskan kindergarten children, 2007

Dental Caries Experience		Child reported toothache >1 time in past 6 months		Total
		Yes	No	
Yes	n	31	283	314
	row%	9.9	90.1	100.0
	col%	72.1	39.0	40.9
No	n	12	442	454
	row%	2.6	97.4	100.0
	col%	27.9	61.0	59.1
Total	n	43	725	768
	row%	5.6	94.4	100.0
	col%	100.0	100.0	100.0

Children who had dental caries experience were four times as likely to have reported tooth pain more than once in the past six months as children that were caries-free (OR=4.03, 95% confidence interval 2.04, 7.99). It is important to remember that dental caries experience = "Yes" category is inclusive of children with untreated caries, which may influence conclusions based upon this finding.

Table 81.

Dental caries experience and tooth pain among those with no untreated dental caries, Alaskan kindergarten children, 2007

Dental Caries Experience		Child reported toothache >1 time in past 6 months		Total
		Yes	No	
Yes	n	12	112	124
	row%	9.7	90.3	100.0
	col%	50.0	20.2	21.5
No	n	12	442	454
	row%	2.6	97.4	100.0
	col%	50.0	79.8	78.5
Total	n	24	554	578
	row%	4.2	95.8	100.0
	col%	100.0	100.0	100.0

When the 190 children with no untreated dental caries are removed from this analysis, little change is seen, suggesting that current untreated caries is not the driver for this relationship. Children who had dental caries experience but no untreated dental caries were still about four times as likely to have reported tooth pain more than once in the past six months as children that were caries-free (OR=3.94, 95% confidence interval 1.73, 9.02).

Table 82.

Dental caries experience and Native Health Corporation/Tribal care, Alaskan kindergarten children, 2007

Dental Caries Experience		Receipt of care through a Native Health Corporation/Tribal clinic		
		Yes	No	Total
Yes	n	87	219	306
	row%	28.4	71.6	100.0
	col%	59.2	37.2	41.6
No	n	60	370	430
	row%	14.0	86.0	100.0
	col%	40.8	62.8	58.4
Total	n	147	589	736
	row%	20.0	80.0	100.0
	col%	100.0	100.0	100.0

Participants with untreated dental caries were more likely to have reported obtaining care at a Native Health Corporation/Tribal clinic (OR=2.45, 95% Confidence Interval 1.69, 3.54) than children without dental insurance.

This table should be viewed with caution, as the primary recipients of care at these clinics are “American Indian/Alaskan Natives”. If this table is generated using only respondents classified as “American Indian/Alaskan Native”, the OR, while similar, loses statistical significance (OR=1.33, (0.50, 3.57)), indicating that Race/Ethnicity may confound this measure.

Table 83.**Dental caries experience on primary maxillary anterior teeth and dental caries experience, Alaskan kindergarten children, 2007**

Dental Caries Experience on Primary Maxillary Anterior Teeth	Number of respondents	Percent	95% CI
Yes	101	31.7	(26.7, 37.1)
No	218	68.3	(62.9, 73.4)
Total	319	100.0	

By definition, children who had dental caries experience on maxillary primary teeth also had to have dental caries experience on any teeth, so only the 319 children with any caries experience were assessed. Of those children with any dental caries experience, 32% experienced dental caries on maxillary primary teeth. These 101 children represent about 13% of all clinical assessment respondents (n=791) for this question.

Table 84.**Dental caries experience and treatment urgency, Alaskan kindergarten children, 2007**

Treatment Urgency	Number of respondents	Percent	95% CI
No obvious problem	131	40.1	(34.7, 45.6)
Early dental care (within weeks)	177	54.1	(48.6, 59.6)
Urgent care (within 24 hours)	19	5.8	(3.6, 9.1)
Total	327	100.0	

For this question, no children that were caries-free required treatment. This table presents the proportion of children with dental caries experience in each "Urgency" grouping.

Table 85.

Dental caries experience and number of quadrants needing treatment, Alaskan kindergarten children, 2007

Number of quadrants needing treatment	Number of respondents	Percent	95% CI
0	131	40.1	(34.7, 45.6)
1	79	24.2	(19.7, 29.2)
2	55	16.8	(13.0, 21.4)
3	40	12.2	(9.0, 16.4)
4	22	6.7	(4.4, 10.2)
Total	327	100.0	

About 40% of children with dental caries experience needed no treatment for dental caries at the time of the survey. The remaining children were those who also had untreated dental caries (see Table 71).

As noted under Table 71, one child that was caries free was reported to require four quadrants of care. No other children that were caries free needed care at the quadrant level.

Dental Caries Experience on Primary Maxillary Anterior Teeth

Dental caries experience on primary maxillary anterior teeth and gender (Table 24), Race/Ethnicity (Table 38), dental insurance status (Table 43), Denali KidCare/Medicaid status (Table 58), untreated dental caries (Table 65) and dental caries experience (Table 83) have already been presented and are not duplicated here.

Individual tables are not reported for variables that revealed no statistical differences in results when compared by untreated dental caries status. These variables are listed in Table 86. For both questionnaire and clinical variables, only records with meaningful responses were tabulated (all “unknown” and “blank” responses were ignored). This yields varying numbers of records for different variables, as respondents were not required to answer all questions. P-values (Chi-square) are presented for multi-level variables and Odds Ratios (OR) with 95% Confidence Intervals for two-level variables. ANOVA tests for population means were used for continuous variables. Dental caries experience on primary maxillary anterior teeth= “Yes” and “Yes” responses to dependent variables, where appropriate, were placed in the default table positions.

When reviewing these tables, it is important to remember that this variable is inclusive of children with untreated dental caries, which may mask findings for the subset of children who have dental caries experience but no untreated dental caries.

Table 86.

Variables with insignificant differences between results when compared by the presence/absence of dental caries experience, Alaskan kindergarten children, 2007

Variable	P-Value	OR (95% CI)
Mean age in months	0.1031	
Respondents with medical insurance		0.68 (0.41, 1.13)

There were too few respondents (88) reporting on Question 3(subset), reasons for the inability to obtain care (eight choices), to make assessments by dental caries experience status meaningful.

Table 87.

Dental caries experience on primary maxillary anterior teeth and length of time since last dental visit, Alaskan kindergarten children 2007

Dental Caries Experience on Primary Maxillary Anterior Teeth		Length of Time since last dental visit				Total
		6 months or less	6 months to 1 year	1-3 years	> 3years or never has been to dentist	
Yes	n	35	26	20	18	99
	row%	35.4	26.3	20.2	18.2	100.0
	col%	9.2	17.0	17.1	13.8	12.7
No	n	344	127	97	112	680
	row%	50.6	18.7	14.3	16.5	100.0
	col%	90.8	83.0	82.9	86.2	87.3
All	n	379	153	117	130	779
	row%	48.7	19.6	15.0	16.7	100.0
	col%	100.0	100.0	100.0	100.0	100.0

Due to small cell sizes, responses for “More than 3 years ago” and “Never has been to the dentist” were combined.

There were significant differences in the length of time since the last dental visit by dental caries experience on primary maxillary anterior teeth (Chi-squared = 8.8348, 3 df, P=0.0316). Children with this history were less likely to have had a dental visit within the past six months than children without this experience, and more likely to have had their last visit more than one year previously.

Table 88.

Dental caries experience on primary maxillary anterior teeth and reason for last dental visit, Alaskan kindergarten children, 2007

Dental Caries Experience on Primary Maxillary Anterior Teeth		Reason for Last Dental Visit				Total
		Something was wrong	Went for routine treatment	Went on own for exam	Called in for exam	
Yes	n	9	25	41	7	82
	row%	11.0	30.5	50.0	8.5	100.0
	col%	22.0	30.9	8.5	12.7	12.4
No	n	32	56	441	48	577
	row%	5.5	9.7	76.4	8.3	100.0
	col%	78.0	69.1	91.5	87.3	87.6
Total	n	41	81	482	55	659
	row%	6.2	12.3	73.1	8.3	100.0
	col%	100.0	100.0	100.0	100.0	100.0

There were significant differences in the reason given for the last reported dental visit and dental caries experience on primary maxillary anterior teeth (Chi-squared = 35.4920, 3 df, P=0.0000). A higher proportion of children with dental caries experience had their last dental visit for treatment of symptoms or for routine treatment than their peers who had no dental caries experience in this tooth group.

Table 89.

Dental caries experience on primary maxillary anterior teeth and inability to obtain needed dental care in last 12 months, Alaskan kindergarten children, 2007

Dental Caries Experience on Primary Maxillary Anterior Teeth		Unable to Obtain Needed Dental Care in Last 12 months		Total
		Yes	No	
Yes	n	23	74	97
	row%	23.7	76.3	100.0
	col%	26.1	10.9	12.7
No	n	65	602	667
	row%	9.7	90.3	100.0
	col%	73.9	89.1	87.3
Total	n	88	676	764
	row%	11.5	88.5	100.0
	col%	100.0	100.0	100.0

Children who had dental caries experience on primary maxillary anterior teeth were almost three times as likely to have reported an inability to obtain needed care in the past 12 months as children with no dental caries experience (OR=2.88, 95% confidence interval 1.69, 4.91) in this tooth group.

Table 90.

Dental caries experience on primary maxillary anterior teeth and tooth pain, Alaskan kindergarten children, 2007

Dental Caries Experience on Primary Maxillary Anterior Teeth		Child reported toothache >1 time in past 6 months		Total
		Yes	No	
Yes	n	13	85	98
	row%	13.3	86.7	100.0
	col%	31.0	11.8	12.9
No	n	29	633	662
	row%	4.4	95.6	100.0
	col%	69.0	88.2	87.1
Total	n	42	718	760
	row%	5.5	94.5	100.0
	col%	100.0	100.0	100.0

Children who had dental caries experience on primary maxillary anterior teeth were more than three times as likely to have reported tooth pain more than once in the past six months as children that did not have caries experience in this tooth group (OR=3.34, 95% Confidence Interval 1.67, 6.67).

Table 91.

Dental caries experience on primary maxillary anterior teeth and Native Health Corporation/Tribal care, Alaskan kindergarten children, 2007

Dental Caries Experience on Primary Maxillary Anterior Teeth		Receipt of care through a Native Health Corporation/Tribal clinic		
		Yes	No	Total
Yes	n	36	60	96
	row%	37.5	62.5	100.0
	col%	24.8	10.3	13.2
No	n	109	523	632
	row%	17.2	82.8	100.0
	col%	75.2	89.7	86.8
Total	n	145	583	728
	row%	19.9	80.1	100.0
	col%	100.0	100.0	100.0

Participants with dental caries experience on primary maxillary anterior teeth were more likely to have reported obtaining care at a Native Health Corporation/Tribal clinic (OR=2.88, 95% Confidence Interval 1.81, 4.57) than children without dental insurance.

This table should be viewed with caution, as the primary recipients of care at these clinics are “American Indian/Alaskan Natives”. If this table is generated using only respondents classified as “American Indian/Alaskan Native”, the OR, while similar, loses statistical significance (OR=1.46, (0.45, 4.78)), indicating that Race/Ethnicity may confound this measure.

Table 92.

Dental caries experience on primary maxillary anterior teeth and treatment urgency, Alaskan kindergarten children, 2007

Dental Caries Experience on Primary Maxillary Anterior Teeth		Treatment Urgency		
		No obvious problem	Early dental care or urgent care	Total
Yes	n	30	71	101
	row%	29.7	70.3	100.0
	col%	5.0	37.8	12.8
No	n	571	117	688
	row%	83.0	17.0	100.0
	col%	95.0	62.2	87.2
Total	n	601	188	789
	row%	76.2	23.8	100.0
	col%	100.0	100.0	100.0

Again, there was insufficient cell size to assess even the combined race/ethnicity groupings in all categories of treatment urgency; those needing urgent care were combined with those needing early dental care.

That done, there were significant differences in treatment urgency between children who did and did not have dental caries experience in maxillary anterior teeth (OR = 0.09, 95% Confidence Interval 0.05, 0.14). Children who had this history were 11 times as likely to need care as those who did not.

Table 93.

Dental caries experience on primary maxillary anterior teeth and mean number of quadrants needing treatment, Alaskan kindergarten children, 2007

Dental Caries Experience on Primary Maxillary Anterior Teeth	Mean number of quadrants needing treatment (range)	Std. Deviation
Yes (n=101)	1.77 (0-4)	1.4344
No (n=688)	0.31 (0-4)	0.7906
Both (n=789)	0.50 (0-4)	1.0221

Children with dental caries experience on primary maxillary anterior teeth required more quadrants of care, on average, than children with no dental caries experience in this tooth group (Kruskal-Wallis H = 157.6865 1df P=0.0000).