

# Results of the Oral Health Survey of Alaskan Third Grade Children 2007

**Alaska Oral Health Basic Screening Survey**  
– a visual, oral health assessment of third grade children  
from a sample of Alaska sites for oral health disease  
surveillance



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# **Alaska State Oral Health Assessment, 2007 Preliminary Data**

## **Assessment description:**

This assessment consisted of two parts: a consent form and 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 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 return and for the number of children actually screened. There were a small percentage of Respondents who completed questionnaires but did not want their children to have the clinical assessment (2.3%) 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 (6.3%).

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

## **Response Tables:**

For these preliminary dataset calculations, sample weights were not available. Response rates were averaged at the School level, and the average school value was used in response tabulations, assuming that the school, not the child, was the sampling unit. One school declined participation and was replaced in the sample.

**Table 1.**

**Percent of returned completed questionnaires to enrolled children, Alaskan 3rd Graders, 2007**

<b>Site</b>	<b>Number of students enrolled in grade</b>	<b>Number of returned completed questionnaires</b>	<b>Percent participation</b>
Sand Lake Elementary	110	50	45.5
Tudor Elementary	78	24	30.1
Knik Elementary	121	66	54.5
Chinook Elementary	70	5	7.1
Meadow Lakes Elementary	71	32	45.1
Bear Valley Elementary	64	47	73.4
Birchwood ABC Elementary	38	20	52.6
Campbell Elementary	54	27	50.0
Creekside Park Elementary	51	18	35.3
Gladys Wood Elementary	47	20	42.6
Government Hill Elementary	68	17	25.0
Muldoon Elementary	63	27	42.9
Northwood Elementary	54	32	59.3
Orion Elementary School	52	44	84.6
Rogers Park Elementary	63	51	81.0
William Tyson Elementary	51	42	82.4
Aurora Borealis Charter School	20	19	95.0
West Homer Elementary	64	20	31.3
Kalifornsky Beach Elementary	57	39	68.4
Redoubt Elementary	64	42	65.6
Keet Gooshi Heen Elem	97	67	69.1
Gastineau Elementary	42	16	38.1
Glacier Valley Elementary	58	11	19.0
Unalaska Elementary	38	16	42.1
Kiana School	10	10	100.0
Alakanuk School	22	18	81.8
Fred Ipalook Elementary	42	30	71.4
Dillingham Elementary	42	20	47.6
Woodriver Elementary	63	52	82.5
Barnette Magnet School	38	22	57.9
<b>Total</b>	<b>1712</b>	<b>904</b>	<b>56.04</b>

Response rates varied between sites, ranging from 7% to 100% for survey participation.

**Table 2.****Percent of returned completed questionnaires and clinical screenings to enrolled children, Alaskan 3<sup>rd</sup> Graders, 2007**

<b>Site</b>	<b>Number of Students enrolled in grade</b>	<b>Number of children screened</b>	<b>Percent participation questionnaire plus screening</b>
Sand Lake Elementary	110	46	41.8
Tudor Elementary	78	20	25.6
Knik Elementary	121	53	43.8
Chinook Elementary	70	5	7.1
Meadow Lakes Elementary	71	30	42.3
Bear Valley Elementary	64	39	60.9
Birchwood ABC Elementary	38	19	50.0
Campbell Elementary	54	24	44.4
Creekside Park Elementary	51	17	33.3
Gladys Wood Elementary	47	20	42.6
Government Hill Elementary	68	13	19.1
Muldoon Elementary	63	26	41.3
Northwood Elementary	54	30	55.6
Orion Elementary School	52	40	76.9
Rogers Park Elementary	63	48	76.2
William Tyson Elementary	51	37	72.6
Aurora Borealis Charter School	20	19	95.0
West Homer Elementary	64	16	25.0
Kalifornsky Beach Elementary	57	37	64.9
Redoubt Elementary	64	41	64.1
Keet Gooshi Heen Elem	97	66	68.0
Gastineau Elementary	42	12	28.6
Glacier Valley Elementary	58	7	12.1
Unalaska Elementary	38	16	42.1
Kiana School	10	10	100.0
Alakanuk School	22	16	72.7
Fred Ipalook Elementary	42	28	66.7
Dillingham Elementary	42	20	47.6
Woodriver Elementary	63	51	81.0
Barnette Magnet School	38	20	52.6
<b>Total</b>	<b>1712</b>	<b>826</b>	<b>48.2</b>

Response rates varied between sites, ranging from 7% to 100% for screening participation.

## Demographic Variables:

Table 3.

### Distribution of participants by screener, Alaskan 3rd Graders, 2007

Screener	Number of Participants	Percent of Participants
AMG	130	14.4
CB	16	1.8
CH	74	8.2
DW	20	2.2
JDH	609	67.4
JE	27	3.0
JH	18	2.0
KB	10	1.1
<b>Total</b>	<b>904</b>	<b>100.1</b>

Eight screeners collected data for this survey, providing between 10 and 609 exams each.

**Table 4.****Distribution of respondents by site, Alaskan 3rd Graders, 2007**

<b>School</b>	<b>Site</b>	<b>Number of Respondents</b>	<b>Percent Respondents</b>
Sand Lake Elementary	1108	50	5.5
Tudor Elementary	1110	24	2.7
Knik Elementary	1113	66	7.3
Chinook Elementary	1302	5	0.6
Meadow Lakes Elementary	1305	32	3.5
Bear Valley Elementary	1401	47	5.2
Birchwood ABC Elementary	1402	20	2.2
Campbell Elementary	1403	27	3.0
Creekside Park Elementary	1404	18	2.0
Gladys Wood Elementary	1405	20	2.2
Government Hill Elementary	1406	17	1.9
Muldoon Elementary	1407	27	3.0
Northwood Elementary	1408	32	3.5
Orion Elementary School	1409	44	4.9
Rogers Park Elementary	1410	51	5.6
William Tyson Elementary	1411	42	4.6
Aurora Borealis Charter School	2101	19	2.1
West Homer Elementary	2402	20	2.2
Kalifornsky Beach Elementary	2403	39	4.3
Redoubt Elementary	2404	42	4.6
Keet Gooshi Heen Elem	3104	67	7.4
Gastineau Elementary	3301	16	1.8
Glacier Valley Elementary	3401	11	1.2
Unalaska Elementary	4118	16	1.8
Kiana School	4310	10	1.1
Alakanuk School	4316	18	2.0
Fred Ipalook Elementary	4401	30	3.3
Dillingham Elementary	4402	20	2.2
Woodriver Elementary	4403	52	5.8
Barnette Magnet School	4404	22	2.4
<b>Total</b>		<b>904</b>	<b>99.9</b>

Based on rough extrapolation of Year 2000 census data, this sample represents approximately 9.5% of Alaskan 3<sup>rd</sup> grade children. The 826 students screened represent about 8.7% of Alaskan 3<sup>rd</sup> grade children.

**Table 5.**

**Distribution of respondents by gender, Alaskan 3<sup>rd</sup> Graders, 2007**

<b>Gender</b>	<b>Number of Respondents</b>	<b>Percent</b>	<b>95% CI</b>
Male	453	50.1	(46.8, 53.4)
Female	451	49.9	(46.6, 53.2)
<b>Total</b>	<b>904</b>	<b>100.0</b>	

Boys and girls were equally distributed in this sample.

**Table 6.**

**Mean age (in months) of respondents by gender, Alaskan 3<sup>rd</sup> Graders, 2007**

<b>Gender</b>	<b>Mean age in months (range)</b>	<b>Std. Deviation</b>
Male (n=411)	104.1 (85-126)	4.87
Female (n=415)	103.5 (88-121)	4.67
<b>Both (n=826)</b>	<b>103.8 (85-126)</b>	<b>4.78</b>

Girls were slightly younger than boys, but the difference in age between genders was not significant (P-Value=0.0828). Birthdates ranged from 5-6-1997 to 8-22-2000. Age was computed only for children who participated in the clinical assessment.

**Table 7.**

**Distribution of respondents by race/ethnicity as reported by parent/guardian, Alaskan 3rd Graders, 2007**

<b>Race/Ethnicity</b>	<b>Code</b>	<b>Number of Respondents</b>	<b>Percent of Respondents</b>	<b>Approximate Census Estimate</b>
White	1	472	52.2	65.2
Black/African American	2	25	2.8	3.5
Hispanic/Latino	3	51	5.6	4.1
Asian	4	71	7.9	4.0
American Indian/Alaskan Native	5	144	15.9	15.6
Native Hawaiian/Pacific Islander	6	19	2.1	0.5
Multi-Racial	7	100	11.1	5.4
Unknown	9	2	0.2	
Blank		20	2.2	
<b>Total</b>		<b>904</b>	<b>100</b>	

Of the 2 children scored as “unknown” by their parent/guardian, one was classified as “Multi-Racial” by and one was not scored by the examining dentist (child was absent on day of exam). Of the 20 children for whom Race/Ethnicity was not scored by their parent/guardian, 13 were classified as “White”, two as “Asian”, two as “Multi-Racial”, and three were not scored by the examining dentist (children were absent on day of exam).

**Table 8.****Revised distribution of respondents by race/ethnicity, Alaskan 3rd Graders, 2007**

<b>Race/Ethnicity</b>	<b>Code</b>	<b>Number of Respondents</b>	<b>Percent of Respondents</b>	<b>95% CI</b>
White	1	485	53.7	(50.3, 56.9)
Black/African American	2	25	2.8	(1.8, 4.1)
Hispanic/Latino	3	51	5.6	(4.3, 7.4)
Asian	4	73	8.1	(6.4, 10.1)
American Indian/Alaskan Native	5	144	15.9	(13.6, 18.5)
Native Hawaiian/Pacific Islander	6	19	2.1	(1.3, 3.3)
Multi-Racial	7	103	11.4	(9.4, 13.7)
Unknown	9	4	0.4	(0.1, 1.2)
<b>Total</b>		<b>904</b>	<b>100</b>	

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 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%), “Hispanic/Latino” (census estimate 4.1%), “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 “Hispanic/Latino”, “Asian”, “Native Hawaiian/Pacific Islander” and “Multi-Racial” categories with respect to crude State estimates.

**Table 9.**

**Revised distribution of respondents by race/ethnicity (collapsed groupings),  
Alaskan 3rd Graders, 2007**

<b>Race/Ethnicity</b>	<b>Number of Respondents</b>	<b>Percent of Respondents</b>	<b>95% CI</b>
White	485	53.7	(50.3, 56.9)
American Indian/Alaskan Native	144	15.9	(13.6, 18.5)
All others	275	30.4	(27.5, 33.6)
<b>Total</b>	<b>904</b>	<b>100</b>	

## Questionnaire Variables:

**Table 10.**

### Length of time since last reported dental visit, Alaskan 3rd Graders, 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.)

<b>Response</b>	<b>Number Responding</b>	<b>Percent Responding</b>	<b>95% CI</b>
6 months or less	526	58.2	(54.9, 61.4)
More than 6 months, but not more than 1 year	169	18.7	(16.2, 21.4)
More than 1 year, but not more than 3 years ago	129	14.3	(12.1, 16.8)
More than 3 years ago	21	2.3	(1.5, 3.6)
Never has been to the dentist	32	3.5	(2.5, 5.0)
Don't know/don't remember	13	1.4	
(Blank)	14	1.5	
<b>Total</b>	<b>904</b>	<b>99.9</b>	

Almost 80% of respondents reported that their child's last dental visit was within the past year, with most visiting a dentist within the past 6 months. A small percentage of parents (less than 4%) responded that their child had never been to a dentist.

**Table 11.****Main reason for last dental visit, Alaskan 3rd Graders, 2007**

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

<b>Response</b>	<b>Number Responding</b>	<b>Percent Responding</b>	<b>95% CI</b>
Something was wrong, bothering or hurting	64	7.1	(5.5, 9.0)
Went for treatment of a condition that dentist discovered at earlier check-up or examination	96	10.6	(8.7, 12.9)
Went in on own for check-up, exam or cleaning	577	63.8	(60.6, 66.9)
Was called in by dentist for check-up, exam or cleaning	101	11.2	(9.2, 13.5)
Don't know	19	2.1	
(Blank)	47	5.2	
<b>Total</b>	<b>904</b>	<b>100</b>	

About 7% of respondents reported that their child's last dental visit was due to pain or discomfort. Seventy-five percent 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."). A total of three responses were recoded.

**Table 12.****Inability to obtain dental care in past 12 months, Alaskan 3rd Graders, 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?

<b>Response</b>	<b>Number Responding</b>	<b>Percent Responding</b>	<b>95% CI</b>
Yes	111	12.3	(10.2, 14.6)
No	755	83.5	(80.9, 85.8)
Don't Know	15	1.7	
(Blank)	23	2.5	
<b>Total</b>	<b>904</b>	<b>100</b>	

One hundred eleven parents (12%) 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 3rd Graders, 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.)

<b>Response</b>	<b>Number Responding</b>	<b>Percent Responding</b>	<b>95% CI</b>
Dentist did not accept Denali KidCare/Medicaid Insurance	12	10.8	(5.7, 18.1)
No dentist available	6	5.4	(2.0, 11.4)
No way to get there	3	2.7	(0.6 , 7.7)
Difficulty in getting appointment	30	27.0	(19.0, 36.3)
Did not know where to go	14	12.6	(7.1, 20.3)
Not serious enough	4	3.6	(1.0, 9.0)
Don’t like/trust/believe in dentists	3	2.7	(0.6, 7.7)
Could not afford	33	29.7	(21.4, 39.1)
Don’t know	2	1.8	
(Blank)	4	3.6	
<b>Total</b>	<b>111</b>	<b>99.9</b>	

Of those parents whose children needed care but could not get it, the most frequent reason given was that they could not afford care (30%); an additional 10% reported that they did not get care for their child because their dentist did not accept Denali KidCare/Medicaid. Others reported that they had difficulty in getting an appointment (27%). Again, “Other” responses were re-coded as a listed response if comments indicated a logical choice was available (e.g., “waiting for appointment” was recorded as “Difficulty in getting appointment.” Two responses were recoded.

**Table 14.**

**Survey respondents reporting tooth pain, Alaskan 3rd Graders, 2007**

Question 4: During the past 6 months did your child have a toothache more than once when biting or chewing?

<b>Response</b>	<b>Number Responding</b>	<b>Percent Responding</b>	<b>95% CI</b>
Yes	69	7.6	(6.0, 9.6)
No	785	86.8	(84.4, 88.9)
Don't Know	28	3.1	
(Blank)	22	2.4	
<b>Total</b>	<b>904</b>	<b>99.9</b>	

Less than 8% of respondents reported that their child had a toothache more than once in the past 6 months.

**Table 15.**

**Respondents with dental insurance, Alaskan 3rd Graders, 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.)

<b>Response</b>	<b>Number Responding</b>	<b>Percent Responding</b>	<b>95% CI</b>
Yes	744	82.3	(79.6,84.7)
No	126	13.9	(11.8,16.4)
Don't Know	8	0.9	
(Blank)	26	2.9	
<b>Total</b>	<b>904</b>	<b>100</b>	

Almost 83% of respondents reported having some type of dental insurance.

**Table 16.****Type of dental insurance coverage carried by respondents, Alaskan 3rd Graders, 2007**

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

<b>Response</b>	<b>Number Responding</b>	<b>Percent Responding</b>	<b>95% CI</b>
Commercial (provided by employer)	348	46.8	(43.1, 50.4)
Private (you bought yourself)	27	3.6	(2.5, 5.3)
Denali KidCare/Medicaid	247	33.2	(29.8, 36.7)
Military/Tricare (Champus)	76	10.2	(8.2, 12.7)
Don't Know	85	11.4	
Multiple types of insurance selected	41	5.5	(4.0, 7.5)
At least one type of insurance selected	657	88.3	(85.7, 90.5)

Of those covered by some type of dental insurance, almost half (47%) reported having insurance through their employer. Over 33% were covered by Denali KidCare or Medicaid. Military coverage accounted for about 10% of those who had some type of insurance. About 6% of children seemed to be covered by more than one type of policy. In addition to those who responded "Don't Know", two respondents who indicated that they had insurance did not select any of the listed categories.

**Table 17.****Respondents receiving care through a Native Health Corporation, Alaskan 3rd Graders, 2007**

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

<b>Response</b>	<b>Number Responding</b>	<b>Percent Responding</b>	<b>95% CI</b>
Yes	150	16.6	(14.3, 19.2)
No	681	75.3	(72.4, 78.1)
Don't Know	18	2.0	
(Blank)	55	6.1	
<b>Total</b>	<b>904</b>	<b>100</b>	

Almost 17% 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 3rd Graders, 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.)

<b>Response</b>	<b>Number Responding</b>	<b>Percent Responding</b>	<b>95% CI</b>
Yes	680	75.2	(72.2, 78.0)
No	159	17.6	(15.2, 20.3)
Don't Know	27	3.0	
(Blank)	38	4.2	
<b>Total</b>	<b>904</b>	<b>100</b>	

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

## Screening Variables:

Parental consent was obtained to examine 883 of the 904 children who returned surveys. Of these, 57 children were absent on the day of exam. 825 (91.3%) 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, presence of sealants on permanent molar teeth, treatment urgency, and the number of quadrants needing treatment for dental caries. Only children who had parental consent and gave consent for an exam (n=825) were included in clinical response tabulations.

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

Almost all the children who were not scored in one or more screening variables were examined by one screener.

## Frequencies of Clinical Variables:

**Table 19.**

### Untreated dental caries, Alaskan 3rd Graders, 2007

Untreated Dental Caries	Number of Participants	Percent of Participants	95% CI
Yes	216	26.2	(23.2, 29.3)
No	610	73.8	(70.7, 76.8)
<b>Total</b>	<b>826</b>	<b>100.0</b>	

26% of children examined had cavitated carious lesions.

**Table 20.**

### Dental caries experience, Alaskan 3rd Graders, 2007

Dental Caries Experience	Number of Participants	Percent of Participants	95% CI
Yes	492	59.6	(56.1, 62.9)
No	328	39.7	(36.4, 43.1)
Not scored	6	0.7	
<b>Total</b>	<b>826</b>	<b>100.0</b>	

Of children examined, 60% had dental caries experience.

**Table 21.**

**Presence of dental sealants, Alaskan 3rd Graders, 2007**

<b>Dental Sealants Present</b>	<b>Number of Participants</b>	<b>Percent of Participants</b>	<b>95% CI</b>
Yes	457	55.3	(51.9, 58.7)
No	356	43.1	(39.7, 46.6)
Unable to score	13	1.6	
<b>Total</b>	<b>826</b>	<b>100.0</b>	

More than half of the children examined had a dental sealant on at least one permanent molar.

**Table 22.**

**Urgency of dental treatment needs, Alaskan 3rd Graders, 2007**

<b>Urgency of Treatment Need</b>	<b>Number of Participants</b>	<b>Percent of Participants</b>	<b>95% CI</b>
No obvious problem	599	72.5	(69.3, 75.5)
Early dental care (within weeks)	205	24.8	(21.9, 27.9)
Urgent care (within 24 hours)	22	2.7	(1.7, 4.1)
<b>Total</b>	<b>825</b>	<b>100.0</b>	

Most children (73%) had no obvious treatment needs, about 25% needed routine care, and 3% needed urgent care.

**Table 23.**

**Number of permanent first molars needing sealants, Alaskan 3rd Graders, 2007**

<b>Number of Permanent First Molars Needing Sealants</b>	<b>Number of Participants</b>	<b>Percent of Participants</b>	<b>95% CI</b>
0	337	40.8	(37.4, 44.2)
1	45	5.4	(4.0, 7.3)
2	95	11.5	(9.4, 13.9)
3	44	5.3	(3.9, 7.1)
4	288	34.9	(31.6, 38.2)
(Not scored)	17	2.1	
<b>Total</b>	<b>826</b>	<b>100</b>	

35% of children screened needed sealants on all permanent first molars; almost 60% needed at least one sealant on a permanent molar.

**Table 24.**

**Number of permanent first molars needing restoration, Alaskan 3rd Graders, 2007**

<b>Number of Permanent First Molars Needing Restoration</b>	<b>Number of Participants</b>	<b>Percent of Participants</b>	<b>95% CI</b>
0	705	85.4	(82.7, 87.7)
1	49	5.9	(4.5, 7.8)
2	30	3.6	(2.5, 5.2)
3	10	1.2	(0.6, 2.3)
4	16	1.9	(1.1, 3.2)
(Not scored)	16	1.9	
<b>Total</b>	<b>826</b>	<b>99.9</b>	

The majority of students screened did not require restoration of any permanent first molars.

**Table 25.**

**Number of quadrants needing treatment for reasons other than sealants or restoration of permanent first molars, Alaskan 3rd Graders, 2007**

<b>Number of Quadrants Needing Treatment</b>	<b>Number of Participants</b>	<b>Percent of Participants</b>	<b>95% CI</b>
0	680	82.3	(79.5, 84.8)
1	78	9.4	(7.6, 11.7)
2	36	4.4	(3.1, 6.0)
3	5	0.6	(0.2, 1.5)
4	11	1.3	(0.7, 2.4)
(Not scored)	16	1.9	
<b>Total</b>	<b>826</b>	<b>100</b>	

The majority of children (82%) needed no care for reasons other than sealants or restoration of permanent first molars; of those who did most required treatment in only one quadrant.

## **Alaska State Oral Health Assessment, Fall 2007**

### **Differences by Gender**

Variables that revealed no statistical differences in results when stratified by gender are listed in Table 26. 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 and “Yes” responses occupied the default table positions. 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.

There were too few respondents (111) reporting on Question 3b, reasons for the inability to obtain care (eight choices) to make assessments by gender meaningful.

**Table 26.****Variables with insignificant differences between results when compared by gender, Alaskan 3<sup>rd</sup> Graders, 2007**

<b>Variable</b>	<b>P-Value</b>	<b>OR (95% CI)</b>
Race/Ethnicity	0.3806	
Length of time since last reported dental visit <sup>1</sup>	0.5769	
Main reason for last dental visit	0.3271	
Inability to get dental care in past 12 months		1.25 (0.84, 1.86)
Respondents reporting tooth pain		1.21 (0.74, 1.99)
Proportion of Respondents with dental insurance		1.26 (0.87, 1.85)
Proportion of Respondents with commercial dental insurance		1.30 (0.98, 1.74)
Proportion of Respondents with private dental insurance		1.03 (0.48, 2.23)
Proportion of Respondents with Military/Tricare (Champus) coverage		1.21 (0.75, 1.94)
Proportion of Respondents who receive dental care through a Native Health Corporation/tribal clinic or in a village based setting (school/clinic)		1.23 (0.86, 1.76)
Respondents with medical insurance		1.16 (0.82, 1.64)
Untreated dental caries		0.98 (0.72, 1.34)
Dental caries experience		1.05 (0.79, 1.39)
Sealants on permanent molars		0.98 (0.75, 1.30)
Treatment urgency (categorically analyzed)	0.4158	
Number of permanent molars needing sealants (categorically analyzed)	0.3849	
Number of permanent molars needing restoration (categorically analyzed)	0.8436	
Number of quadrants needing treatment for other reasons (primary, soft tissues) (categorically analyzed) <sup>2</sup>	0.7772	

<sup>1</sup> responses of “more than three years ago” and “never has been to the dentist” were combined to yield adequate cell size for analysis

<sup>2</sup> responses of “3” and “4” were combined to yield adequate cell size for analysis

**Table 27.**  
**Age and gender, Alaskan 3rd Graders, 2007**

<b>Gender</b>	<b>Age in months</b>	<b>SD</b>
Male	103.4	(51.9, 58.8)
Female	104.1	(39.6, 46.5)
<b>Total</b>	<b>904</b>	

Among participants, girls were slightly older than boys, and this difference was statistically significant ( $P=0.0231$ ). Since the magnitude of this difference is small, however (less than one month), the practical impact of this difference is of questionable importance.

**Table 28.**  
**Denali KidCare/Medicaid by gender, Alaskan 3rd Graders, 2007**

<b>Gender</b>		<b>Denali KidCare/Medicaid</b>		<b>Total</b>
		<b>Yes</b>	<b>No</b>	
<b>Male</b>	n	113	267	380
	<b>row%</b>	<b>29.7</b>	<b>70.3</b>	<b>100.0</b>
	col%	45.7	53.7	51.1
<b>Female</b>	n	134	230	364
	<b>row%</b>	<b>36.8</b>	<b>63.2</b>	<b>100.0</b>
	col%	54.3	46.3	48.9
<b>Total</b>	n	247	497	744
	<b>row%</b>	<b>33.2</b>	<b>66.8</b>	<b>100.0</b>
	col%	100.0	100.0	100.0

Parents/caretakers of boys ( $OR=0.73$ , 95% confidence interval 0.53, 0.99) were less likely to have coverage with Denali KidCare/Medicaid.

# Alaska State Oral Health Assessment, Fall 2007 Data

## Response Differences by Race/Ethnicity

The revised Race variable described in Table 8 will be used for these analyses whenever possible; when these categories were used children with “unknown” race/ethnicity (n=4) were excluded from analyses. For some variables, cell sizes became too small to evaluate every racial category. The grouped racial variable described in Table 9 was used for these analyses

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 29. 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 29.**

**Variables with insignificant differences between results when compared by Race/Ethnicity, Alaskan 3<sup>rd</sup> Graders, 2007**

<b>Variable</b>	<b>P-Value</b>
age	0.7925
Gender	0.3806
Proportion of Respondents with private dental insurance <sup>1</sup>	0.7780
Mean number of permanent molars needing sealants	0.2563
Mean number of quadrants needing treatment for other reasons	0.1990

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

There were too few respondents (111) reporting on Question 3b, 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 30.**

**Length of time since last reported dental visit by Race/Ethnicity, Alaskan 3<sup>rd</sup> Graders, 2007**

Race		Length of time since last dental visit				
		<=6 months	6-12 months	1-3 years	> 3 years or has never been to a dentist	Total
<b>White</b>	n	334	73	49	26	482
	<b>row%</b>	<b>69.3</b>	<b>15.1</b>	<b>10.2</b>	<b>5.4</b>	<b>100.0</b>
	col%	63.5	43.2	38.0	49.1	55.0
<b>American Indian/Alaskan Native</b>	n	62	36	28	10	136
	<b>row%</b>	<b>45.6</b>	<b>26.5</b>	<b>20.6</b>	<b>7.4</b>	<b>100.0</b>
	col%	11.8	21.3	21.7	18.9	15.5
<b>All others</b>	n	130	60	52	17	259
	<b>row%</b>	<b>50.2</b>	<b>23.2</b>	<b>20.1</b>	<b>6.6</b>	<b>100.0</b>
	col%	24.7	35.5	40.3	32.1	29.5
<b>All Races</b>	n	526	169	129	53	877
	<b>row%</b>	<b>60.0</b>	<b>19.3</b>	<b>14.7</b>	<b>6.0</b>	<b>100.0</b>
	col%	100.0	100.0	100.0	100.0	100.0

Chi-Squared 41.6316 6 df P-Value = 0.0000

Cell size was too small to yield meaningful analysis with all race/ethnicity groupings and all response categories. The grouped race/ethnicity variable was used and a grouped variable was created for length of time since last visit by combining response categories of “more than three years” and “never has been to the dentist”.

Further analysis with this variable showed that “Whites” and “All others” were different from each other (Chi-Squared 28.3941, 3df, P=0.0000), and that “Whites” were different than “American Indian/Alaskan Natives” (Chi-squared 26.9627 3df, P=0.0000). “American Indian/Alaskan Natives” were not statistically different than “all others” (Chi-squared 0.8824 3df, P=0.8297).

“Whites” were more likely to report a visit to the dentist within the past six months than other groups.

**Table 31.**

**Reason for last dental visit by Race/Ethnicity, Alaskan 3<sup>rd</sup> Graders, 2007**

Race		Reason for last dental visit				
		Something was wrong	Went for treatment	Went on own for exam	Was called in for exam	Total
<b>White</b>	n	16	51	349	45	461
	<b>row%</b>	<b>3.5</b>	<b>11.1</b>	<b>75.7</b>	<b>9.8</b>	<b>100.0</b>
	col%	25.0	53.1	60.5	44.6	50.0
<b>American Indian/Alaskan Native</b>	n	17	17	75	23	132
	<b>row%</b>	<b>12.9</b>	<b>12.9</b>	<b>56.8</b>	<b>17.4</b>	<b>100.0</b>
	col%	26.6	17.7	13.0	22.8	15.8
<b>All others</b>	n	31	28	153	33	245
	<b>row%</b>	<b>12.7</b>	<b>11.4</b>	<b>62.4</b>	<b>13.5</b>	<b>100.0</b>
	col%	48.4	29.2	26.5	32.7	29.2
<b>All Races</b>	n	64	96	577	101	838
	<b>row%</b>	<b>7.6</b>	<b>11.5</b>	<b>68.9</b>	<b>12.1</b>	<b>100.0</b>
	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 = 36.5492, 6 df, P=0.000). 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” or “other” (about 25%) reported that their last visit was for some type of treatment than “Whites” (15%). Additionally, children that were classified as “American Indian/Alaskan Native” were more likely than others to have been called in by a dentist for an examination (versus “went on own for exam”) than others.

**Table 32.**

**Inability to get needed dental care by Race/Ethnicity, Alaskan 3<sup>rd</sup> Graders, 2007**

Race		Not able to get needed dental care when needed (past 12 months)		
		Yes	No	Total
<b>White</b>	n	45	432	477
	<b>row%</b>	<b>9.4</b>	<b>90.6</b>	<b>100.0</b>
	col%	40.5	44.6	55.1
<b>American Indian/Alaskan Native</b>	n	20	114	134
	<b>row%</b>	<b>14.9</b>	<b>85.1</b>	<b>100.0</b>
	col%	18.0	15.1	15.5
<b>All others</b>	n	46	209	255
	<b>row%</b>	<b>18.0</b>	<b>82.0</b>	<b>100.0</b>
	col%	41.4	27.7	29.4
<b>All Races</b>	n	111	755	866
	<b>row%</b>	<b>12.8</b>	<b>12.1</b>	<b>100.0</b>
	col%	100.0	100.0	100.0

There were significant differences in the ability to get care when needed between Race/Ethnicity groupings (Chi-squared = 11.6415, 2 df, P=0.030). A lower proportion of children classified as “White” reported being unable to get care when needed than those classified as “American Indian/Alaskan Native” or “other”. There was not a significant difference (P=0.4368) between “American Indian/Alaskan Native” and “others” in the ability to obtain needed dental care.

**Table 33.**

**Respondents reporting tooth pain by Race/Ethnicity, Alaskan 3<sup>rd</sup> Graders, 2007**

Race		Toothache more than once in past 6 months when biting or chewing		
		Yes	No	Total
<b>White</b>	n	28	441	469
	<b>row%</b>	<b>6.0</b>	<b>94.0</b>	<b>100.0</b>
	col%	40.6	56.2	54.9
<b>American Indian/Alaskan Native</b>	n	8	128	136
	<b>row%</b>	<b>5.9</b>	<b>94.1</b>	<b>100.0</b>
	col%	11.6	16.3	15.9
<b>All others</b>	n	33	216	249
	<b>row%</b>	<b>13.3</b>	<b>86.7</b>	<b>100.0</b>
	col%	47.8	27.5	29.2
<b>All Races</b>	n	69	785	854
	<b>row%</b>	<b>8.1</b>	<b>91.9</b>	<b>100.0</b>
	col%	100.0	100.0	100.0

There were significant differences in reports of tooth pain in the last 6 months between Race/Ethnicity groupings (Chi-squared = 12.6674, 2 df, P=0.018). A lower proportion of children classified as “White” and “American Indian/Alaskan Native” reported having tooth pain than those classified as “other”.

**Table 34.**

**Proportion of respondents with dental insurance by Race/Ethnicity, Alaskan 3<sup>rd</sup> Graders, 2007**

Race/Ethnicity	n	Proportion of respondents who have dental insurance	95% CI
White	471	.894	(.862, .919)
Black/African American	25	1.000	
Hispanic/Latino	49	.776	(.634, .882)
Asian	63	.810	(.691, .898)
American Indian/Alaskan Native	139	.799	(.722, .862)
Native Hawaiian/Pacific Islander	19	.842	(.604, .966)
Multi-racial	100	.790	(.697, .865)
<b>All respondents</b>	<b>866</b>	<b>.856</b>	<b>(.830, .878)</b>

All respondents that were classified as “Black/African American” reported having some type of dental insurance.

**Table 35.**

**Proportion of respondents with “Commercial” dental insurance by Race/Ethnicity, Alaskan 3<sup>rd</sup> Graders, 2007**

Race/Ethnicity	n	Proportion of respondents who have “Commercial” dental insurance	95% CI
White	421	.561	(.512, .608)
Black/African American	25	.280	(.121, .494)
Hispanic/Latino	38	.289	(.154, .459)
Asian	51	.431	(.293, .578)
American Indian/Alaskan Native	111	.315	(.230, .410)
Native Hawaiian/Pacific Islander	16	.250	(.073, .524)
Multi-racial	79	.392	(.284, .509)
<b>All respondents</b>	<b>741</b>	<b>.467</b>	<b>(.431, .504)</b>

A higher proportion of “Whites” reported having Commercial dental insurance than Alaskans as a whole. A significantly lower proportion of “Black/African Americans”, “Hispanic/Latinos”, and “American Indian/Alaskan Natives” reported having Commercial dental insurance than Alaskan groups as a whole.

**Table 36.**

**Proportion of respondents with Denali KidCare/Medicaid dental coverage by Race/Ethnicity, Alaskan 3<sup>rd</sup> Graders, 2007**

<b>Race/Ethnicity</b>	<b>n</b>	<b>Proportion of respondents who have Denali KidCare/Medicaid dental coverage</b>	<b>95% CI</b>
<b>White</b>	421	.195	(.159, .237)
<b>Black/African American</b>	25	.560	(.349, .756)
<b>Hispanic/Latino</b>	38	.553	(.383, .714)
<b>Asian</b>	51	.412	(.276, .558)
<b>American Indian/Alaskan Native</b>	111	.586	(.488, .678)
<b>Native Hawaiian/Pacific Islander</b>	16	.813	(.544, .960)
<b>Multi-racial</b>	79	.392	(.284, .509)
<b>All respondents</b>	<b>741</b>	<b>.333</b>	<b>(.300, .369)</b>

A lower proportion of respondents classified as “White” had Denali KidCare/Medicaid Coverage than children in Alaska as a whole, and than any other individual “Race/Ethnicity” classification.

Table 37.

**Proportion of Respondents with Military/Tricare (Champus) Dental Coverage by Race/Ethnicity, Alaskan 3<sup>rd</sup> Graders, 2007**

<b>Race/Ethnicity</b>	<b>n</b>	<b>Proportion of respondents who have Military/Tricare (Champus) dental coverage</b>	<b>95% CI</b>
<b>White</b>	421	.124	(.094, .160)
<b>Black/African American</b>	25	.160	(.045, .361)
<b>Hispanic/Latino</b>	38	.132	(.044, .281)
<b>Asian</b>	51	.078	(.022, .189)
<b>American Indian/Alaskan Native</b>	111	.018	(.002, .064)
<b>Native Hawaiian/Pacific Islander</b>	16	0	(.000, .206)
<b>Multi-racial</b>	79	.114	(.053, .205)
<b>All respondents</b>	<b>741</b>	<b>.103</b>	<b>(.082, .127)</b>

A lower proportion of “American Indian/Alaskan Natives” (2%) reported that they had Military/Tricare (Champus) dental coverage. No “Native Hawaiian/Pacific Islander” participants reported this coverage.

**Table 38.**

**Proportion of respondents who receive care through an IHS/Native Health Corporation/tribal clinic by Race/Ethnicity, Alaskan 3<sup>rd</sup> Graders, 2007**

<b>Race/Ethnicity</b>	<b>n</b>	<b>Proportion of respondents receive care through an IHS/Native Health Corporation/tribal dental clinic</b>	<b>95% CI</b>
<b>White</b>	454	.020	(.010, .039)
<b>Black/African American</b>	25	0	(.000, .137)
<b>Hispanic/Latino</b>	46	.065	(.014, .179)
<b>Asian</b>	59	0	(.000, .061)
<b>American Indian/Alaskan Native</b>	131	.802	(.723, .866)
<b>Native Hawaiian/Pacific Islander</b>	19	.105	(.013, .331)
<b>Multi-racial</b>	95	.326	(.234, .430)
<b>All respondents</b>	<b>829</b>	<b>.181</b>	<b>(.156, .209)</b>

In previous surveys, only about one-third of American Indian/Alaskan Native respondents indicated that they have IHS/Native Health Corporation coverage when this coverage was listed as “insurance”, although all were eligible. Questionnaire format was modified to list this coverage as a separate question, to distinguish this care delivery system from dental insurance coverage.

This survey response seems to capture children who access care through Native Health Corporation/IHS and tribal clinics; 18% of Alaskan 3<sup>rd</sup> Grade respondents accessed care through these clinics. As would be expected, the greatest percentages of children accessing this care were classified as American Indian/Alaskan Native (80%).

**Table 39.**

**Proportion of respondents with medical insurance by Race/Ethnicity,  
Alaskan 3<sup>rd</sup> Graders, 2007**

<b>Race/Ethnicity</b>	<b>n</b>	<b>Proportion of respondents who have medical insurance</b>	<b>95% CI</b>
<b>White</b>	453	.898	(.866, .924)
<b>Black/African American</b>	25	.920	(.740, .990)
<b>Hispanic/Latino</b>	48	.708	(.559, .830)
<b>Asian</b>	64	.656	(.527, .771)
<b>American Indian/Alaskan Native</b>	133	.654	(.567, .764)
<b>Native Hawaiian/Pacific Islander</b>	18	.556	(.308, .785)
<b>Multi-racial</b>	95	.800	(.705, .875)
<b>All respondents</b>	<b>836</b>	<b>.812</b>	<b>(.784, .838)</b>

Children classified as “Hispanic/Latino”, “Asian”, “American Indian/Alaskan Native”, and “Native Hawaiian/Pacific Islander” were less likely to report having medical insurance than children classified as “White”.

Table 40.

Proportion of participants with untreated dental caries by Race/Ethnicity, Alaskan 3<sup>rd</sup> Graders, 2007

Race/Ethnicity	n	Proportion of participants who have untreated dental caries	95% CI
White	446	.204	(.168, .245)
American Indian/Alaskan Native	132	.394	(.310, .483)
All others	248	.294	(.238, .355)
<i>Black/African American</i>	23	.174	(.050, .388)
<i>Hispanic/Latino</i>	44	.227	(.115, .378)
<i>Asian</i>	67	.388	(.271, .515)
<i>Native Hawaiian/Pacific Islander</i>	19	.421	(.203, .665)
<i>Multi-racial</i>	95	.263	(.178, .364)
<b>All respondents</b>	<b>826</b>	<b>.262</b>	<b>(.232, .293)</b>

A higher proportion of children classified as “American Indian/Alaskan Native” had untreated dental caries than participating children in Alaska as a whole. When compared to children classified as “White” a higher proportion of children classified as “Asian” and “American Indian/Alaskan Native” had untreated dental caries.

**Table 41.**

**Proportion of participants with dental caries experience by Race/Ethnicity, Alaskan 3<sup>rd</sup> Graders, 2007**

<b>Race/Ethnicity</b>	<b>n</b>	<b>Proportion of participants who have dental caries experience</b>	<b>95% CI</b>
<b>White</b>	444	.532	(.484, .579)
<b>American Indian/Alaskan Native</b>	131	.756	(.673, .827)
<b>All others</b>	245	.641	(.577, .701)
<i><b>Black/African American</b></i>	23	.565	(.345, .768)
<i><b>Hispanic/Latino</b></i>	44	.568	(.410, .717)
<i><b>Asian</b></i>	65	.723	(.598, .827)
<i><b>Native Hawaiian/Pacific Islander</b></i>	19	.737	(.488, .909)
<i><b>Multi-racial</b></i>	94	.617	(.511, .715)
<b>All respondents</b>	<b>820</b>	<b>.600</b>	<b>(.565, .634)</b>

As in the previous table, a higher proportion of children classified as “American Indian/Alaskan Native” had dental caries experience than participating children in Alaska as a whole. When compared to children classified as “White” a higher proportion of children classified as “Asian” and “American Indian/Alaskan Native” had dental caries experience.

Table 42.

Proportion of participants with dental sealants by Race/Ethnicity, Alaskan 3<sup>rd</sup> Graders, 2007

Race/Ethnicity	n	Proportion of participants who have dental sealants	95% CI
White	442	.561	(.513, .608)
American Indian/Alaskan Native	130	.677	(.589, .756)
All others	241	.502	(.437, .567)
<i>Black/African American</i>	23	.565	(.345, .768)
<i>Hispanic/Latino</i>	43	.512	(.355, .667)
<i>Asian</i>	63	.476	(.349, .606)
<i>Native Hawaiian/Pacific Islander</i>	19	.316	(.126, .566)
<i>Multi-racial</i>	93	.538	(.431, .642)
<b>All respondents</b>	<b>813</b>	<b>.562</b>	<b>(.527, .596)</b>

A lower proportion of “Native Hawaiian/Pacific Islander” participants (32%) had sealants than children classified as “American Indian/Alaskan Native”, who had the highest proportion of children with at least one permanent molar with a sealant. This difference should be viewed with caution, however, due to the small sample size of this group; this group showed no statistical difference from Alaskan respondents as a whole.

**Table 43.**

**Treatment Urgency by Race/Ethnicity, Alaskan 3<sup>rd</sup> Graders, 2007**

Race		Treatment Urgency			
		No obvious problem	Early dental care	Urgent care	Total
<b>White</b>	n	352	89	5	446
	row%	<b>78.9</b>	<b>20.0</b>	<b>1.1</b>	<b>100.0</b>
	col%	58.8	43.4	22.7	54.0
<b>American Indian/Alaskan Native</b>	n	76	55	1	132
	row%	<b>57.6</b>	<b>41.7</b>	<b>0.8</b>	<b>100.0</b>
	col%	12.7	26.8	4.5	16.0
<b>All others</b>	n	171	61	16	248
	row%	<b>69.0</b>	<b>24.6</b>	<b>6.5</b>	<b>100.0</b>
	col%	28.5	29.8	72.7	30.0
<b>All Races</b>	n	599	205	22	826
	row%	<b>72.5</b>	<b>24.8</b>	<b>2.7</b>	<b>100.0</b>
	col%	100.0	100.0	100.0	100.0

There were significant differences in treatment urgency between Race/Ethnicity groupings (Chi-squared = 45.5211, 4 df, P=0.0000). This statistic should be viewed with caution, however, since cell sizes did not meet minimal requirements for meaningful analysis. Children classified as “All others” (not “White” or “American Indian/Alaskan Native”) were more likely to have urgent treatment needs than others; children classified as “American Indian/Alaskan Native” were more apt to need early dental care. “Whites” were most likely to have “no obvious problem”.

**Table 44.**

**Proportion of participants needing treatment by Race/Ethnicity, Alaskan 3<sup>rd</sup> Graders, 2007**

<b>Race/Ethnicity</b>	<b>n</b>	<b>Proportion of participants needing treatment</b>	<b>95% CI</b>
<b>White</b>	446	.211	(.174, .252)
<b>American Indian/Alaskan Native</b>	132	.424	(.339, .513)
<b>All others</b>	248	.310	(.253, .372)
<b><i>Black/African American</i></b>	23	.174	(.050, .388)
<b><i>Hispanic/Latino</i></b>	44	.273	(.150, .428)
<b><i>Asian</i></b>	67	.403	(.285, .530)
<b><i>Native Hawaiian/Pacific Islander</i></b>	19	.421	(.203, .665)
<b><i>Multi-racial</i></b>	95	.274	(.187, .375)
<b>All races</b>	<b>826</b>	<b>.275</b>	<b>(.245, .307)</b>

This is an alternative presentation to the data presented in Table 43, 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. As a group, a greater proportion of children classified as “other” minorities needed some type of dental treatment when compared to children classified as “White”.

**Table 45.**

**Mean number of permanent molars in need of sealants by Race/Ethnicity, Alaskan 3<sup>rd</sup> Graders, 2007**

<b>Race</b>	<b>n</b>	<b>Mean number of permanent molars in need of sealants (range)</b>	<b>Std. Deviation</b>
<b>White</b>	441	1.93 (0-4)	1.8058
<b>American Indian/Alaskan Native</b>	130	1.50 (0-4)	1.6066
<b>All others</b>	238	1.99 (0-4)	1.8245
<i><b>Black/African American</b></i>	23	1.96 (0-4)	1.9651
<i><b>Hispanic/Latino</b></i>	43	2.19 (0-4)	1.8549
<i><b>Asian</b></i>	61	1.93 (0-4)	1.8786
<i><b>Native Hawaiian/Pacific Islander</b></i>	19	2.00 (0-4)	1.7951
<i><b>Multi-racial</b></i>	92	1.93 (0-4)	1.7778
<b>All respondents</b>	<b>809</b>	<b>1.88 (0-4)</b>	<b>1.7858</b>

On average, participants needed about 2 sealants on permanent molars.

When comparing only the three “collapsed” racial groups, children classified as “American Indian/Alaskan Native” needed fewer sealants, on average, than children classified as “White” or “All others” (P=0.0287).

**Table 46.**

**Mean number of permanent molars in need of restoration by Race/Ethnicity, Alaskan 3<sup>rd</sup> Graders, 2007**

<b>Race</b>	<b>n</b>	<b>Mean number of permanent molars in need of restoration (range)</b>	<b>Std. Deviation</b>
<b>White</b>	442	.14 (0-4)	.5539
<b>American Indian/Alaskan Native</b>	130	.43 (0-4)	.8531
<b>All others</b>	238	.36 (0-4)	.9692
<i><b>Black/African American</b></i>	23	.04 (0-1)	.2085
<i><b>Hispanic/Latino</b></i>	43	.16 (0-4)	.6877
<i><b>Asian</b></i>	61	.59 (0-4)	1.2299
<i><b>Native Hawaiian/Pacific Islander</b></i>	19	.84 (0-4)	1.5728
<i><b>Multi-racial</b></i>	92	.27 (0-4)	.7718
<b>All respondents</b>	<b>810</b>	<b>.25 (0-4)</b>	<b>.7574</b>

Population variances were not homogenous; Kruskal-Wallis H=42.00259 6df, P=0.0000.

Participants classified as “Asian”, “American Indian/Alaskan Native”, and “Native Hawaiian/Pacific Islander” had a greater number of permanent molars requiring restoration than those in other Race/Ethnicity categories.

## Alaska State Oral Health Assessment, Fall 2007 Data

### Response Differences by Dental Insurance Status

Gender and dental insurance status (Table 26) has already been assessed, and showed no statistically significant relationship to dental insurance status. The relationship between Race/Ethnicity and dental insurance status (Table 34) has also been previously presented; in this sample all respondents in the “Black/African American” category reported that they had dental insurance, and while “American Indian/Alaskan Native” respondents had marginally less insurance coverage than “Whites” they were not different from respondents as a whole. These tables are not represented.

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 47. 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” was placed in the default table position, as were “Yes” dependent variables.

**Table 47.**

#### **Variables with insignificant differences between results when compared by dental insurance status, Alaskan 3<sup>rd</sup> Graders, 2007**

<b>Variable</b>	<b>P-Value</b>	<b>OR (95% CI)</b>
Untreated dental caries		0.69 (0.45, 1.06)
Dental Caries Experience		0.69 (0.45, 1.04)
Sealants on permanent molars		1.35 (0.91, 2.02)
Mean number of permanent molars needing sealants	0.2414	
Mean number of permanent molars needing restoration	0.2428	
Mean number of quadrants needing treatment for other reasons	0.6403	

There were too few respondents (108) reporting on Question 3b, reasons for the inability to obtain care (eight choices), to make assessments by dental insurance status meaningful.

Table 48.

Length of time since last dental visit by dental insurance status, Alaskan 3<sup>rd</sup> Graders, 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	
<b>Yes</b>	n	468	135	96	34	733
	<b>row%</b>	<b>63.8</b>	<b>18.4</b>	<b>13.1</b>	<b>4.6</b>	<b>100.0</b>
	col%	89.8	83.3	78.0	69.4	85.7
<b>No</b>	n	53	27	27	15	122
	<b>row%</b>	<b>43.4</b>	<b>22.1</b>	<b>22.1</b>	<b>12.3</b>	<b>100.0</b>
	col%	10.2	16.7	22.0	30.6	14.3
<b>All</b>	n	521	162	123	49	855
	<b>row%</b>	<b>60.9</b>	<b>18.9</b>	<b>14.4</b>	<b>5.7</b>	<b>100.0</b>
	col%	100.0	100.0	100.0	100.0	100.0

A grouped variable for length of time since last visit, as described in Table 26, was used to yield adequate cell size for analysis. There were significant differences in the length of time since the last dental visit by Insurance Status (Chi-squared = 24.5405, 3 df, P=0.0000). Children with dental insurance coverage were more apt to have had a dental visit within the past 6 months and less likely to have had a visit more than three years ago or never than children without insurance.

**Table 49.**

**Reason for last dental visit last dental visit by dental insurance status, Alaskan 3<sup>rd</sup> Graders, 2007**

Dental insurance status		Reason for last dental visit				Total
		Something was wrong	Went in for treatment	Went on own for checkup or cleaning	Was called in for checkup or cleaning	
<b>Yes</b>	n	45	79	500	86	710
	row%	<b>6.3</b>	<b>11.1</b>	<b>70.4</b>	<b>12.1</b>	<b>100.0</b>
	col%	73.8	83.2	88.5	85.1	86.4
<b>No</b>	n	16	16	65	15	112
	row%	<b>14.3</b>	<b>14.3</b>	<b>58.0</b>	<b>13.4</b>	<b>100.0</b>
	col%	26.2	16.8	11.5	14.9	13.6
<b>All</b>	n	61	95	565	101	822
	row%	<b>7.4</b>	<b>11.6</b>	<b>68.7</b>	<b>12.3</b>	<b>100.0</b>
	col%	100.0	100.0	100.0	100.0	100.0

There were significant differences between insured and uninsured respondents for the reason for their last dental visit (Chi-squared = 11.3581, 3 df, P=0.0099). A higher proportion of participants with dental insurance reported that their last dental visit as going in on their own for a checkup or cleaning. Children without dental insurance were more likely to report that their last visit was because something was wrong.

**Table 50.**

**Inability to obtain dental care by dental insurance status, Alaskan 3<sup>rd</sup> Graders, 2007**

Dental insurance status		Unable to obtain needed dental care in past 12 months		Total
		Yes	No	
<b>Yes</b>	n	74	654	728
	<b>row%</b>	<b>10.2</b>	<b>89.8</b>	<b>100.0</b>
	col%	68.5	88.4	85.8
<b>No</b>	n	34	86	120
	<b>row%</b>	<b>28.3</b>	<b>71.7</b>	<b>100.0</b>
	col%	31.5	11.6	14.2
<b>Total</b>	n	108	740	848
	<b>row%</b>	<b>12.7</b>	<b>87.3</b>	<b>100.0</b>
	col%	100.0	100.0	100.0

Children who had dental insurance were a third less likely to have reported an inability to obtain care when needed in the past 12 months (OR=0.29, (0.18, 0.46)) than children without dental insurance.

**Table 51.**

**Tooth pain by dental insurance status, Alaskan 3<sup>rd</sup> Graders, 2007**

Dental insurance status		Toothache more than once in past six months		Total
		Yes	No	
<b>Yes</b>	n	50	673	723
	row%	<b>6.9</b>	<b>93.1</b>	<b>100.0</b>
	col%	72.5	87.3	86.1
<b>No</b>	n	19	98	117
	row%	<b>16.2</b>	<b>83.8</b>	<b>100.0</b>
	col%	27.5	12.7	13.9
<b>Total</b>	n	69	771	840
	row%	<b>8.2</b>	<b>91.8</b>	<b>100.0</b>
	col%	100.0	100.0	100.0

Children who had dental insurance were less likely to have reported a toothache more than once in the past six months (OR=0.38, (0.22, 0.68)) than children without dental insurance.

**Table 52.**

**Native Health Corporation/Tribal care by dental insurance status, Alaskan 3<sup>rd</sup> Graders, 2007**

Dental insurance status		Receipt of care through a Native Health Corporation/Tribal Clinic		Total
		Yes	No	
<b>Yes</b>	n	109	587	696
	<b>row%</b>	<b>15.7</b>	<b>84.3</b>	<b>100.0</b>
	col%	74.1	87.5	85.1
<b>No</b>	n	38	84	122
	<b>row%</b>	<b>31.1</b>	<b>68.9</b>	<b>100.0</b>
	col%	25.9	12.5	14.9
<b>Total</b>	n	147	671	818
	<b>row%</b>	<b>18.0</b>	<b>82.0</b>	<b>100.0</b>
	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=0.41, (0.27, 0.63)) 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 Native. If this table is generated using only respondents classified as “American Indian/Alaskan Native”, the OR, while similar, loses statistical significance (OR=0.41, (0.11, 1.47), indicating that Race/Ethnicity may confound this measure.

**Table 53.**

**Medical/Surgical insurance by dental insurance status, Alaskan 3<sup>rd</sup> Graders, 2007**

Dental insurance status		Medical Insurance Status		Total
		Yes	No	
<b>Yes</b>	n	648	59	707
	row%	<b>91.7</b>	<b>8.3</b>	<b>100.0</b>
	col%	96.4	37.8	85.4
<b>No</b>	n	24	97	121
	row%	<b>19.8</b>	<b>80.2</b>	<b>100.0</b>
	col%	3.6	62.2	14.6
<b>Total</b>	n	672	156	828
	row%	<b>81.2</b>	<b>18.8</b>	<b>100.0</b>
	col%	100.0	100.0	100.0

Children who had dental insurance were far, far more likely to have medical/surgical insurance coverage (OR=44.4, (26.4, 74.7)) than children without dental insurance.

**Table 54.**

**Treatment urgency by dental insurance status, Alaskan 3<sup>rd</sup> Graders, 2007**

Dental insurance status		Treatment Urgency		Total
		No obvious problem	Early dental care or Urgent care	
<b>Yes</b>	n	502	175	677
	row%	<b>74.2</b>	<b>25.8</b>	<b>100.0</b>
	col%	86.9	80.6	85.2
<b>No</b>	n	76	42	118
	row%	<b>64.4</b>	<b>35.6</b>	<b>100.0</b>
	col%	13.1	19.4	14.8
<b>Total</b>	n	578	217	795
	row%	<b>72.7</b>	<b>27.3</b>	<b>100.0</b>
	col%	100.0	100.0	100.0

Category responses of “Early dental care” and “Urgent care” were combined to yield adequate cell size for analysis. A larger proportion of children with dental insurance (OR=1.59, 95% CI 1.05, 2.40) had no obvious problems when examined.

## Response Differences by Denali KidCare/Medicaid Status

For these comparisons, all valid responses were included and children with Denali KidCare were compared to all others, regardless of other insurance status.

Medicaid status and gender (Table 28) has already been assessed, and showed that girls were more likely to have Medicaid coverage than boys (OR=1.37). The relationship between Race/Ethnicity and Medicaid status (Table 36) has also been previously presented; in this sample a lower proportion of “Whites” had Medicaid coverage than responding children as a whole. These tables are not re-presented.

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 55. 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” was placed in the default table position, as were “Yes” dependent variables.

**Table 55.**

### **Variables with insignificant differences between results when compared by Denali KidCare/Medicaid status, Alaskan 3<sup>rd</sup> Graders, 2007**

<b>Variable</b>	<b>P-Value</b>	<b>OR (95% CI)</b>
Respondents reporting tooth pain		0.87 (0.49, 1.53)
Proportion of respondents with medical insurance		0.81 (0.54, 1.20)
Sealants on permanent molars		1.06 (0.77, 1.44)
Mean number of permanent molars needing sealants	0.5132	
Mean number of permanent molars needing restoration	0.0996	

There were too few respondents (111) reporting on Question 3b, reasons for the inability to obtain care (eight choices), to make assessments by Denali KidCare/Medicaid status meaningful.

Table 56.

Length of time since last dental visit by Denali KidCare/Medicaid status, Alaskan 3<sup>rd</sup> Graders, 2007

Denali KidCare/Medicaid 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	
<b>Yes</b>	n	124	60	47	7	238
	row%	<b>52.1</b>	<b>25.2</b>	<b>19.7</b>	<b>2.9</b>	<b>100.0</b>
	col%	23.6	35.5	36.4	13.2	85.7
<b>No</b>	n	402	109	82	46	639
	row%	<b>62.9</b>	<b>17.1</b>	<b>12.8</b>	<b>7.2</b>	<b>100.0</b>
	col%	76.4	64.5	63.6	86.8	72.9
<b>All</b>	n	526	169	129	53	877
	row%	<b>60.0</b>	<b>19.3</b>	<b>14.7</b>	<b>6.0</b>	<b>100.0</b>
	col%	100.0	100.0	100.0	100.0	100.0

A grouped variable for length of time since last visit, as described in Table 26, was used to yield adequate cell size for analysis. There were significant differences in the length of time since the last dental visit by Insurance Status (Chi-squared = 20.1985, 3 df, P=0.0002). Children with Denali KidCare/Medicaid coverage were less apt to have had a dental visit within the past 6 months and less likely to have had a visit more than three years ago or never than children without such coverage. They were more likely, however, to have had a visit within the past 6 months to three years than those without this coverage.

Table 57.

Reason for last dental visit last dental visit by Denali KidCare/Medicaid status, Alaskan 3<sup>rd</sup> Graders, 2007

Denali KidCare/Medicaid Status		Reason for last dental visit				Total
		Something was wrong	Went in for treatment	Went on own for checkup or cleaning	Was called in for checkup or cleaning	
<b>Yes</b>	n	20	30	135	46	231
	row%	<b>8.7</b>	<b>13.0</b>	<b>58.4</b>	<b>19.9</b>	<b>100.0</b>
	col%	31.3	31.3	23.4	45.5	86.4
<b>No</b>	n	44	66	442	55	607
	row%	<b>7.2</b>	<b>10.9</b>	<b>72.8</b>	<b>9.1</b>	<b>100.0</b>
	col%	68.8	68.8	76.6	54.5	72.4
<b>All</b>	n	64	96	577	101	838
	row%	<b>7.6</b>	<b>11.5</b>	<b>68.9</b>	<b>12.1</b>	<b>100.0</b>
	col%	100.0	100.0	100.0	100.0	100.0

There were significant differences between respondents with and without Denali KidCare/Medicaid for the reason for their last dental visit (Chi-squared = 22.4604, 3 df, P=0.0001). A higher proportion of participants with Denali KidCare/Medicaid reported that their last dental visit as being because something was wrong, they went in for treatment, or because they were called in for a checkup or cleaning. Children without this coverage were more likely to report that their last visit as going in on their own for a checkup or cleaning.

**Table 58.**

**Inability to obtain dental care by Denali KidCare/Medicaid status, Alaskan 3<sup>rd</sup> Graders, 2007**

		Unable to obtain needed dental care in past 12 months		Total	
		Yes	No		
Denali KidCare/Medicaid Status					
	<b>Yes</b>	n	44	194	238
		row%	<b>18.5</b>	<b>81.5</b>	<b>100.0</b>
	col%	39.6	25.7	27.5	
<b>No</b>	n	67	561	628	
	row%	<b>10.7</b>	<b>89.3</b>	<b>100.0</b>	
	col%	60.4	74.3	72.5	
<b>Total</b>	n	111	755	866	
	row%	<b>12.8</b>	<b>87.2</b>	<b>100.0</b>	
	col%	100.0	100.0	100.0	

In contrast to respondents with other types of dental insurance who were less likely to have reported an inability to obtain needed care in the past 12 months (Table 48, which included Denali KidCare/Medicaid as a type of included insurance), respondents with Denali KidCare/Medicaid were almost two time as likely to report that they were unable to obtain needed care as respondents without this coverage (OR=1.90, (1.26, 2.87)).

Table 59.

**Native Health Corporation/Tribal care by Denali KidCare/Medicaid status, Alaskan 3<sup>rd</sup> Graders, 2007**

Denali KidCare/Medicaid Status		Receipt of care through a Native Health Corporation/Tribal Clinic		Total
		Yes	No	
<b>Yes</b>	n	64	169	233
	row%	<b>27.5</b>	<b>72.5</b>	<b>100.0</b>
	col%	42.7	24.8	28.0
<b>No</b>	n	86	512	598
	row%	<b>14.4</b>	<b>85.6</b>	<b>100.0</b>
	col%	57.3	75.2	72.0
<b>Total</b>	n	150	681	831
	row%	<b>18.1</b>	<b>81.9</b>	<b>100.0</b>
	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=2.25, (1.56, 3.26)) than children without this coverage.

This table should be viewed with caution, as the primary recipients of care at these clinics are American Indian/Alaskan Native. If this table is generated using only respondents classified as "American Indian/Alaskan Native", the OR, while similar, loses statistical significance (OR=0.67, (0.28, 1.58), indicating that Race/Ethnicity may confound this measure.

**Table 60.**

**Untreated dental caries and Denali KidCare/Medicaid status, Alaskan 3<sup>rd</sup> Graders, 2007**

Denali KidCare/Medicaid Status		Untreated dental caries		Total
		Yes	No	
<b>Yes</b>	n	70	154	224
	<b>row%</b>	<b>31.3</b>	<b>68.8</b>	<b>100.0</b>
	col%	32.4	25.2	27.1
<b>No</b>	n	146	456	602
	<b>row%</b>	<b>24.3</b>	<b>75.7</b>	<b>100.0</b>
	col%	67.6	74.8	72.9
<b>Total</b>	n	216	610	826
	<b>row%</b>	<b>26.2</b>	<b>73.8</b>	<b>100.0</b>
	col%	100.0	100.0	100.0

Children who had Denali KidCare/Medicaid were more likely to have untreated dental caries (OR=1.42, 95%CI 1.01, 1.99) than children without this coverage.

Table 61.

Proportion of respondents with Denali KidCare/Medicaid dental coverage who have untreated dental caries by Race/Ethnicity, Alaskan 3<sup>rd</sup> Graders, 2007

Race/Ethnicity	n	Proportion of respondents with Denali KidCare/Medicaid who have untreated dental caries	95% CI
White	77	.286	(.188, .400)
American Indian/Alaskan Native	56	.446	(.313, .585)
All Others	91	.253	(.167, .355)
<i>Black/African American</i>	13	.231	(.050, .538)
<i>Hispanic/Latino</i>	17	.176	(.038, .434)
<i>Asian</i>	18	.222	(.064, .476)
<i>Native Hawaiian/Pacific Islander</i>	13	.385	(.139, .684)
<i>Multi-racial</i>	30	.267	(.123, .459)
<b>All respondents</b>	<b>224</b>	<b>.313</b>	<b>(.252, .378)</b>

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 62.**

**Dental caries experience and Denali KidCare/Medicaid status, Alaskan 3<sup>rd</sup> Graders, 2007**

Denali KidCare/Medicaid Status		Dental caries experience		Total
		Yes	No	
<b>Yes</b>	n	152	71	223
	<b>row%</b>	<b>68.2</b>	<b>31.8</b>	<b>100.0</b>
	col%	30.9	21.6	27.2
<b>No</b>	n	340	257	597
	<b>row%</b>	<b>57.0</b>	<b>43.0</b>	<b>100.0</b>
	col%	69.1	78.4	72.8
<b>Total</b>	n	492	328	820
	<b>row%</b>	<b>60.0</b>	<b>40.0</b>	<b>100.0</b>
	col%	100.0	100.0	100.0

Children who had Denali KidCare/Medicaid were more likely to have dental caries experience (OR=1.62, 95% CI 1.17, 2.24) than children without this coverage.

Table 63.

Proportion of respondents with Denali KidCare/Medicaid dental coverage who have dental caries experience by Race/Ethnicity, Alaskan 3<sup>rd</sup> Graders, 2007

Race/Ethnicity	n	Proportion of respondents with Denali KidCare/Medicaid who have dental caries experience	95% CI
White	77	.623	(.506, .731)
American Indian/Alaskan Native	56	.768	(.636, .870)
All Others	90	.678	(.571, .772)
<i>Black/African American</i>	13	.615	(.316, .861)
<i>Hispanic/Latino</i>	17	.647	(.383, .858)
<i>Asian</i>	18	.833	(.586, .964)
<i>Native Hawaiian/Pacific Islander</i>	13	.692	(.386, .909)
<i>Multi-racial</i>	29	.621	(.423, .793)
<b>All respondents</b>	<b>223</b>	<b>.682</b>	<b>(.616, .742)</b>

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

Table 64.

Sealants on permanent molars and Denali KidCare/Medicaid status, Alaskan 3<sup>rd</sup> Graders, 2007

Denali KidCare/Medicaid Status		Sealants present on any permanent molars		Total
		Yes	No	
<b>Yes</b>	n	127	95	222
	<b>row%</b>	<b>57.2</b>	<b>42.8</b>	<b>100.0</b>
	col%	27.8	26.7	27.3
<b>No</b>	n	330	261	591
	<b>row%</b>	<b>55.8</b>	<b>44.2</b>	<b>100.0</b>
	col%	72.2	73.3	72.7
<b>Total</b>	n	457	356	813
	<b>row%</b>	<b>56.2</b>	<b>43.8</b>	<b>100.0</b>
	col%	100.0	100.0	100.0

There does not appear to be a strong or statistically significant relationship between sealants and Denali KidCare/Medicaid status (OR 1.06, 95% Confidence Interval 0.77, 1.44).

Table 65.

Proportion of respondents with Denali KidCare/Medicaid dental coverage who have sealants on permanent molars by Race/Ethnicity, Alaskan 3<sup>rd</sup> Graders, 2007

Race/Ethnicity	n	Proportion of respondents who have Denali KidCare/Medicaid who have any sealants on permanent molars	95% CI
<b>White</b>	76	.539	(.421, .655)
<b>American Indian/Alaskan Native</b>	56	.661	(.522, .782)
<b>All Others</b>	90	.544	(.436, .650)
<i>Black/African American</i>	13	.385	(.139, .684)
<i>Hispanic/Latino</i>	17	.647	(.383, .858)
<i>Asian</i>	18	.556	(.308, .785)
<i>Native Hawaiian/Pacific Islander</i>	13	.385	(.139, .684)
<i>Multi-racial</i>	29	.621	(.423, .793)
<b>All respondents</b>	<b>222</b>	<b>.572</b>	<b>(.504, .638)</b>

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

**Table 66.**

**Treatment urgency and Denali KidCare/Medicaid status, Alaskan 3<sup>rd</sup> Graders, 2007**

Denali KidCare/Medicaid status		Treatment Urgency		Total
		No obvious problem	Early dental care or Urgent Care	
<b>Yes</b>	n	151	73	224
	<b>row%</b>	<b>67.4</b>	<b>32.6</b>	<b>100.0</b>
	col%	25.2	32.2	27.1
<b>No</b>	n	448	154	602
	<b>row%</b>	<b>74.4</b>	<b>25.6</b>	<b>100.0</b>
	col%	74.8	67.8	72.9
<b>Total</b>	n	599	227	826
	<b>row%</b>	<b>72.5</b>	<b>27.4</b>	<b>100.0</b>
	col%	100.0	100.0	100.0

Category responses of “Early dental care” and “Urgent care” were combined to yield adequate cell size for analysis. When compared with respondents without such coverage, a larger proportion of children with Denali KidCare/Medicaid (OR=0.71, 95% CI 0.51, 0.99) needed some type of dental treatment.

**Table 67.**

**Treatment urgency (all categories) and Denali KidCare/Medicaid status, Alaskan 3<sup>rd</sup> Graders, 2007**

Denali KidCare/Medicaid status		Treatment Urgency			Total
		No obvious problem	Early dental care	Urgent Care	
<b>Yes</b>	n	151	69	4	224
	row%	<b>67.4</b>	<b>30.8</b>	<b>1.8</b>	<b>100.0</b>
	col%	25.2	33.7	18.2	27.1
<b>No</b>	n	448	136	18	602
	row%	<b>74.4</b>	<b>22.6</b>	<b>3.0</b>	<b>100.0</b>
	col%	74.8	66.3	81.8	72.9
<b>Total</b>	n	599	205	22	826
	row%	<b>72.5</b>	<b>24.8</b>	<b>2.7</b>	<b>100.0</b>
	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.

**Table 68.**

**Mean number of quadrants needing treatment for other reasons by Denali KidCare/Medicaid status, Alaskan 3<sup>rd</sup> Graders, 2007**

<b>Denali KidCare/Medicaid status</b>	<b>n</b>	<b>Mean number of quadrants needing treatment for other reasons (range)</b>	<b>Std. Deviation</b>
<b>Yes</b>	222	.34 (0-4)	.7660
<b>No</b>	588	.23 (0-4)	.6623
<b>All respondents</b>	<b>810</b>	<b>.26 (0-4)</b>	<b>.6935</b>

Population variances were not homogenous; Kruskal-Wallis H=5.2111 1df, P=0.0224.

Respondents with Denali KidCare/Medicaid coverage needed more quadrants of care for other reasons (primary teeth, soft tissue), on average, than children without this coverage.

## Differences by Clinical Variables:

### Untreated Dental Caries

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 69. 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.

The relationship between untreated dental caries and gender (Table 26) and dental insurance status (Table 45) have already been assessed and showed no statistically significant relationship to untreated dental caries. Relationships with Race/Ethnicity are presented in Table 40; and with Denali KidCare/Medicaid status in Table 60; these tables will not be repeated here.

**Table 69.**

**Variables with insignificant differences between results when compared by the presence/absence of untreated dental caries, Alaskan 3<sup>rd</sup> Graders, 2007**

<b>Variable</b>	<b>P-Value</b>
Mean Age (in months)	0.0651

There were too few respondents (103) reporting on Question 3b, reasons for the inability to obtain care (eight choices), to make assessments by Untreated Dental Caries status meaningful.

**Table 70.**

**Length of time since last dental visit and untreated dental caries status, Alaskan 3<sup>rd</sup> Graders, 2007**

Untreated Dental Caries Status		Length of time since last dental visit					Total
		6 months or less	6 months to 1 yr	Between 1-3 years	More than 3 yrs	Never	
<b>Untreated Dental Caries</b>	n	87	47	47	6	13	200
	row%	<b>43.5</b>	<b>23.5</b>	<b>23.5</b>	<b>3.0</b>	<b>6.5</b>	<b>100.0</b>
	col%	18.0	30.7	40.9	30.0	41.9	25.0
<b>No Untreated Dental Caries</b>	n	395	106	68	14	18	601
	row%	<b>65.7</b>	<b>17.6</b>	<b>11.3</b>	<b>2.3</b>	<b>3.0</b>	<b>100.0</b>
	col%	82.0	69.3	59.1	70.0	58.1	75.0
<b>Total</b>	n	482	153	115	20	31	801
	row%	<b>60.2</b>	<b>19.1</b>	<b>14.4</b>	<b>2.5</b>	<b>3.9</b>	<b>100.0</b>
	col%	100.0	100.0	100.0	100.0	100.0	100.0

There were significant differences in the length of time since the last reported dental visit and untreated dental caries status (Chi-squared = 35.5707, 4 df, P=0.0000). Cell sizes are small in the “More than 3 years” category, but significant differences exist even if categories of “More than 3 years and “Never” are combined (Chi-squared=34.6463, 3 df, P=0.0000). The expanded table is displayed here. A lower proportion of children with untreated dental caries had their last dental visit within the past 6 months than children with no untreated dental caries. These proportions of children reverse for all greater time intervals given, with a higher proportion of children with untreated dental caries having the longer interval of time since the last reported visit.

**Table 71.**

**Reason for last dental visit and untreated dental caries status, Alaskan 3<sup>rd</sup> Graders, 2007**

Untreated Dental Caries Status		Reason for last Dental Visit				Total
		Something was wrong	Went for routine treatment	Went on own for exam	Called in for exam	
<b>Untreated Dental Caries</b>	n	32	31	102	23	188
	row%	<b>17.0</b>	<b>16.5</b>	<b>54.3</b>	<b>12.2</b>	<b>100.0</b>
	col%	53.3	34.8	19.4	25.6	24.6
<b>No Untreated Dental Caries</b>	n	28	58	423	67	576
	row%	<b>4.9</b>	<b>10.1</b>	<b>73.4</b>	<b>11.6</b>	<b>100.0</b>
	col%	46.7	65.2	80.6	74.4	75.4
<b>Total</b>	n	60	89	525	90	764
	row%	<b>7.9</b>	<b>11.6</b>	<b>68.7</b>	<b>11.8</b>	<b>100.0</b>
	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 = 39.3354, 3 df, P=0.0000). A greater proportion of children with no untreated caries had their last visit for an exam that they (or their parent/guardian) had initiated than children who had untreated caries. 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.

**Table 72.**

**Inability to obtain needed dental care in the past 12 months and untreated dental caries status, Alaskan 3<sup>rd</sup> Graders, 2007**

Untreated Dental Caries Status		Unable to obtain needed dental care in the past 12 months		Total
		Yes	No	
<b>Untreated Dental Caries</b>	n	45	151	196
	row%	<b>23.0</b>	<b>77.0</b>	<b>100.0</b>
	col%	43.7	22.0	24.8
<b>No Untreated Dental Caries</b>	n	58	536	594
	row%	<b>9.8</b>	<b>90.2</b>	<b>100.0</b>
	col%	56.3	78.0	75.2
<b>Total</b>	n	103	687	790
	row%	<b>13.0</b>	<b>87.0</b>	<b>100.0</b>
	col%	100.0	100.0	100.0

Parents/guardians of children who had untreated dental caries 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 with no untreated dental caries (OR=2.75, 95% confidence interval 1.79, 4.23).

**Table 73.**

**Respondents reporting tooth pain and untreated dental caries status, Alaskan 3<sup>rd</sup> Graders, 2007**

Untreated Dental Caries Status		Child reported toothache >1 time in past 6 months		Total
		Yes	No	
<b>Untreated Dental Caries</b>	n	26	168	194
	row%	<b>13.4</b>	<b>86.6</b>	<b>100.0</b>
	col%	41.3	23.4	24.8
<b>No Untreated Dental Caries</b>	n	37	550	587
	row%	<b>6.3</b>	<b>93.7</b>	<b>100.0</b>
	col%	58.7	76.6	75.2
<b>Total</b>	n	63	718	781
	row%	<b>8.1</b>	<b>91.9</b>	<b>100.0</b>
	col%	100.0	100.0	100.0

Children who had untreated dental caries were more than twice as likely to have reported tooth pain more than once in the past 6 months as children with no untreated dental caries (OR=2.30, 95% confidence interval 1.35, 3.91).

**Table 74.**

**Caries experience of participants with no untreated caries, Alaskan 3<sup>rd</sup> Graders, 2007**

	Frequency	Percent	95% CI
<b>Caries Experience</b>	276	45.2	(41.3, 49.3)
<b>Caries Free</b>	328	53.8	(49.7, 57.8)
<b>Not assessed</b>	6	1.0	
<b>Total</b>	<b>610</b>	<b>100.0</b>	

This table is presented only for informational purposes. About 74% of children assessed (610 of 826) had no untreated caries. It is interesting to note, that half of these (about 40% of the 826 children scored) were caries free (never had a cavity).

**Table 75.**

**Sealants on permanent molars and untreated dental caries status, Alaskan 3<sup>rd</sup> Graders, 2007**

Untreated Dental Caries Status		Sealants on permanent molars		Total
		Yes	No	
<b>Untreated Dental Caries</b>	n	85	124	209
	<b>row%</b>	<b>40.7</b>	<b>59.3</b>	<b>100.0</b>
	col%	18.6	34.8	25.7
<b>No Untreated Dental Caries</b>	n	372	232	604
	<b>row%</b>	<b>61.6</b>	<b>38.4</b>	<b>100.0</b>
	col%	81.4	65.2	74.3
<b>Total</b>	n	457	356	813
	<b>row%</b>	<b>56.2</b>	<b>43.8</b>	<b>100.0</b>
	col%	100.0	100.0	100.0

Participants who had untreated dental caries were less than half as likely (OR 0.43 95% CI 0.31, 0.59) to have sealants than those with no untreated dental caries; conversely, participants who had no untreated dental caries were more than twice as likely to have dental sealants on permanent molars as children with untreated dental caries.

**Table 76.**

**Treatment urgency and untreated dental caries status, Alaskan 3<sup>rd</sup> Graders, 2007**

Untreated Dental Caries Status		Treatment Urgency			Total
		No obvious problem	Early dental care	Urgent care	
<b>Untreated Dental Caries</b>	n	0	194	22	216
	row%	<b>0</b>	<b>89.8</b>	<b>10.2</b>	<b>100.0</b>
	col%	0	94.6	100.0	26.2
<b>No Untreated Dental Caries</b>	n	599	11	0	610
	row%	<b>98.2</b>	<b>1.8</b>	<b>0.0</b>	<b>100.0</b>
	col%	100.0	5.4	0.0	73.8
<b>Total</b>	n	599	205	22	826
	row%	<b>72.5</b>	<b>24.8</b>	<b>2.7</b>	<b>100.0</b>
	col%	100.0	100.0	100.0	100.0

Statistical tests are not warranted when there are cells of “0”. Although there are some treatment needs not dictated by dental caries (space maintenance/management, periodontics, orthodontics, failure of teeth to exfoliate, pathology), most urgent needs in this age group are dictated by dental caries, which is the driver of this table. What is of note is that screeners identified about 2% of participants as needing “early dental care” that was obviously not related to dental caries per se.

**Table 77.**

**Mean number of permanent molars needing sealants and untreated dental caries status, Alaskan 3<sup>rd</sup> Graders, 2007**

Untreated dental caries	n	Mean number of permanent molars needing sealants (range)	Std. Deviation
<b>Yes</b>	207	2.10 (0-4)	1.5889
<b>No</b>	602	1.80 (0-4)	1.8439
<b>All respondents</b>	<b>809</b>	<b>1.88 (0-4)</b>	<b>1.7858</b>

Population variances were not homogenous; Kruskal-Wallis H=4.8924 1df, P=0.0270.

Respondents with untreated dental caries had a greater number of permanent first molars, on average, than children with no untreated dental caries. This would appear to indicate that sealant initiatives are appropriate in this age group, and would be of benefit to those most in need.

**Table 78.**

**Mean number of quadrants needing treatment for other reasons by untreated dental caries status, Alaskan 3<sup>rd</sup> Graders, 2007**

<b>Untreated dental caries status</b>	<b>n</b>	<b>Mean number of quadrants needing treatment for other reasons (range)</b>	<b>Std. Deviation</b>
<b>Yes</b>	208	.99 (0-4)	1.0699
<b>No</b>	602	.01 (0-1)	.0813
<b>All respondents</b>	<b>810</b>	<b>.26 (0-4)</b>	<b>.6935</b>

Population variances were not homogenous; Kruskal-Wallis H=410.4153 1df, P=0.0000.

Respondents with untreated dental caries needed more quadrants of care for other reasons (primary teeth, soft tissue), on average, than children with no untreated dental caries. Since the untreated dental caries measure captures caries in primary teeth as well as permanent teeth, logically children with untreated dental caries should have higher mean scores for this measure.

## Dental Caries Experience

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 79. 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.

The relationship between dental caries experience and gender (Table 26) and dental insurance status (Table 45) have already been assessed and showed no statistically significant relationship to untreated dental caries. Relationships with Race/Ethnicity are presented in Table 41; and with Denali KidCare/Medicaid status in Table 62; these tables will not be repeated here.

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)

There were no children with no caries experience with a treatment urgency score of “2”, and only one respondent with a treatment urgency score of “1”, which made statistical analysis of this relationship questionable. A table of this nature was presented above (Table 67) for untreated dental caries for informational purposes. Similarly, only two children in the caries-free category needed any treatment, presumably for soft tissue reasons.

**Table 79.**

**Variables with insignificant differences between results when compared by dental caries experience, Alaskan 3<sup>rd</sup> Graders, 2007**

Variable	P-Value	OR (95% CI)
Mean Age (in months)	0.2285	
Sealants on permanent molars		0.99 (0.74, 1.31)
Mean number of sealants needed on permanent molars	0.3071	

There were too few respondents (103) reporting on Question 3b, reasons for the inability to obtain care (eight choices), to make assessments by Dental Caries Experience meaningful.

**Table 80.**

**Length of time since last dental visit and dental caries experience, Alaskan 3<sup>rd</sup> Graders, 2007**

Dental Caries Experience		Length of time since last dental visit					Total
		6 months or less	6 months to 1 yr	Between 1-3 years	More than 3 yrs	Never	
<b>Dental Caries Experience</b>	n	262	100	78	11	19	470
	row%	<b>55.7</b>	<b>21.3</b>	<b>16.6</b>	<b>2.3</b>	<b>4.0</b>	<b>100.0</b>
	col%	54.6	66.7	67.8	55.0	63.3	59.1
<b>No Dental Caries Experience</b>	n	218	50	37	9	11	325
	row%	<b>67.1</b>	<b>15.4</b>	<b>11.4</b>	<b>2.8</b>	<b>3.4</b>	<b>100.0</b>
	col%	45.4	33.3	32.2	45.0	36.7	40.9
<b>Total</b>	n	480	150	115	20	30	795
	row%	<b>60.4</b>	<b>18.9</b>	<b>14.5</b>	<b>2.5</b>	<b>3.8</b>	<b>100.0</b>
	col%	100.0	100.0	100.0	100.0	100.0	100.0

There were significant differences in the length of time since the last reported dental visit and dental caries experience (Chi-squared = 11.5897, 4 df, P=0.0207). A lower proportion of children with untreated dental caries had their last dental visit within the past 6 months than children with no untreated dental caries. These proportions of children reverse for most greater time intervals given, with a higher proportion of children with untreated dental caries having the longer interval of time since the last reported visit. These differences are small, however, at extended time intervals (“more than 3 years” and “never”). Due to the overlap of this measure and untreated dental caries, the driver for this table may be the untreated caries component.

**Table 81.**

**Reason for last dental visit and dental caries experience, Alaskan 3<sup>rd</sup> Graders, 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	
<b>Yes</b>	n	49	70	278	50	447
	row%	<b>11.0</b>	<b>15.7</b>	<b>62.2</b>	<b>11.2</b>	<b>100.0</b>
	col%	81.7	79.5	53.4	55.6	58.9
<b>No</b>	n	11	18	243	40	312
	row%	<b>3.5</b>	<b>5.8</b>	<b>77.9</b>	<b>12.8</b>	<b>100.0</b>
	col%	18.3	20.5	46.6	44.4	41.1
<b>Total</b>	n	60	88	521	90	759
	row%	<b>7.9</b>	<b>11.6</b>	<b>68.6</b>	<b>11.9</b>	<b>100.0</b>
	col%	100.0	100.0	100.0	100.0	100.0

There were significant differences in the length of time since the last reported dental visit and untreated dental caries status (Chi-squared = 35.3632, 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.

**Table 82.**

**Inability to obtain needed dental care in last 12 months and dental caries experience, Alaskan 3<sup>rd</sup> Graders, 2007**

Dental Caries Experience		Unable to obtain needed dental care in last 12 months		Total
		Yes	No	
<b>Yes</b>	n	74	385	459
	<b>row%</b>	<b>16.1</b>	<b>83.9</b>	<b>100.0</b>
	col%	71.8	56.5	58.5
<b>No</b>	n	29	296	325
	<b>row%</b>	<b>8.9</b>	<b>91.1</b>	<b>100.0</b>
	col%	28.2	43.5	41.5
<b>Total</b>	n	103	681	784
	<b>row%</b>	<b>13.1</b>	<b>86.9</b>	<b>100.0</b>
	col%	100.0	100.0	100.0

Children who had dental caries experience were about twice as likely to have reported an inability to obtain needed care in the past 12 months as children with no dental caries experience (OR=1.96, 95% confidence interval 1.24, 3.09). It is again important to remember that this category is inclusive of children with untreated caries, which may influence conclusions based upon this finding.

**Table 83.**

**Respondents reporting tooth pain and dental caries experience, Alaskan 3<sup>rd</sup> Graders, 2007**

Dental Caries Experience		Child reported toothache >1 time in past 6 months		Total
		Yes	No	
<b>Yes</b>	n	49	405	454
	<b>row%</b>	<b>10.8</b>	<b>89.2</b>	<b>100.0</b>
	col%	77.8	56.9	58.6
<b>No</b>	n	14	307	321
	<b>row%</b>	<b>4.4</b>	<b>95.6</b>	<b>100.0</b>
	col%	22.2	43.1	41.4
<b>Total</b>	n	63	712	775
	<b>row%</b>	<b>8.1</b>	<b>91.9</b>	<b>100.0</b>
	col%	100.0	100.0	100.0

Children who had dental caries experience were more than two and a half times as likely to have reported tooth pain more than once in the past 6 months as children that were caries-free (OR=2.65, 95% confidence interval 1.44, 4.89). 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.

## Differences by Dental Sealant Status

The relationships between dental sealants and Gender (Table 26), Race/Ethnicity (Table 42), Dental Insurance Status (Table 47), Denali KidCare/Medicaid status (Table 64), untreated dental caries (Table 75), and Caries Experience (Table 79) have already been presented, and will not be repeated here. Other questionnaire variables have not been tabulated; other clinical variables are presented here.

**Table 84.**

### Sealants on permanent molars and treatment urgency, Alaskan 3<sup>rd</sup> Graders, 2007

Sealants on any permanent molars		Treatment Urgency		Total
		No obvious problem	Early dental care or Urgent care	
<b>Yes</b>	n	369	88	457
	<b>row%</b>	<b>80.7</b>	<b>19.3</b>	<b>100.0</b>
	col%	62.1	40.2	56.2
<b>No</b>	n	225	131	356
	<b>row%</b>	<b>63.2</b>	<b>36.8</b>	<b>100.0</b>
	col%	37.9	59.8	43.8
<b>Total</b>	n	594	219	813
	<b>row%</b>	<b>73.1</b>	<b>26.9</b>	<b>100.0</b>
	col%	100.0	100.0	100.0

There were significant differences treatment urgency and the presence of sealants on permanent molars (OR=2.44, 95% CI 1.78, 3.35). Children with molar sealants were more than twice as likely to have no obvious oral problems as children without sealants. Categories of “early dental care” and “urgent care” were combined to allow adequate cell size for analysis.

**Table 85.**

**Mean number of permanent molars needing dental sealants and dental sealant status, Alaskan 3<sup>rd</sup> Graders, 2007**

<b>Sealants on any permanent molars</b>	<b>n</b>	<b>Mean number of permanent molars needing sealants (range)</b>	<b>Std. Deviation</b>
<b>Yes</b>	453	.64 (0-4)	1.0578
<b>No</b>	356	3.45 (0-1)	1.1939
<b>All respondents</b>	<b>809</b>	<b>1.88</b>	<b>1.7858</b>

Population variances were not homogenous; Kruskal-Wallis H=486.8730 1df, P=0.0000.

Participants who had at least one molar sealed needed far fewer additional permanent molars sealed when compared to participants with no sealants present, as might be expected. 310 of the 453 children with sealants (68%) did not need additional sealants. In contrast, children with no permanent molars sealed had, on average, 3 ½ permanent molars that needed sealants. 78% of these children needed sealants on all four permanent molars. Overall, 58% of participants (471 of 808) needed at least one sealant on a permanent molar.

There were nine children who were scored as having sealants that were also scored as having four permanent molars needing sealants. It is presumed that these children required repair of at least one sealant that was present.

**Table 86.**

**Mean number of permanent molars needing restoration and dental sealant status, Alaskan 3<sup>rd</sup> Graders, 2007**

<b>Sealants on any permanent molars</b>	<b>n</b>	<b>Mean number permanent molars needing restoration (range)</b>	<b>Std. Deviation</b>
<b>Yes</b>	454	.10 (0-4)	.4024
<b>No</b>	356	.44 (0-1)	1.0178
<b>All respondents</b>	<b>810</b>	<b>.25 (0-4)</b>	<b>.7574</b>

Population variances were not homogenous; Kruskal-Wallis H=30.2695 1df, P=0.0000.

Respondents with dental sealants on at least one permanent molar needed had fewer permanent molars that were in need of restorative care, on average, than children with no untreated dental caries.

**Table 87.**

**Mean number of quadrants needing treatment for other reasons and dental sealant status, Alaskan 3<sup>rd</sup> Graders, 2007**

Sealants on any permanent molars	n	Mean number of quadrants needing treatment (range)	Std. Deviation
Yes	454	.20 (0-4)	.5550
No	356	.34 (0-1)	.8317
<b>All respondents</b>	<b>810</b>	<b>.26 (0-4)</b>	<b>.6935</b>

Population variances were not homogenous; Kruskal-Wallis H=4.9234 1df, P=0.0265.

Respondents without sealants on any permanent molars needed more quadrants of care for other reasons (primary teeth, soft tissue), on average, than children with dental sealants on at least one permanent molar.

**Table 88.**

**Sealants on permanent molars and number of quadrants needing treatment, Alaskan 3<sup>rd</sup> Graders, 2007**

Sealants on any Permanent Molars		Number of quadrants needing treatment					Total
		0	1	2	3	4	
<b>Yes</b>	n	392	40	19	1	2	454
	row%	<b>86.3</b>	<b>8.8</b>	<b>4.2</b>	<b>0.2</b>	<b>0.4</b>	<b>100.0</b>
	col%	57.6	51.3	52.8	20.0	18.2	56.0
<b>No</b>	n	288	38	17	4	9	355
	row%	<b>80.9</b>	<b>10.7</b>	<b>4.8</b>	<b>1.1</b>	<b>2.5</b>	<b>100.0</b>
	col%	42.4	48.7	47.2	80.0	81.8	44.0
<b>Total</b>	n	680	78	36	5	11	810
	row%	<b>84.0</b>	<b>9.6</b>	<b>4.4</b>	<b>0.6</b>	<b>1.4</b>	<b>100.0</b>
	col%	100.0	100.0	100.0	100.0	100.0	100.0

This table gives an alternate categorical display of information provided in Table 80. Cell size in several cells is too small to give valid statistical analysis; however, this display gives a different perspective of the data, as the means analysis does not give a clear view of distribution of responses.