



BASIC SCREENING SURVEY FOR THIRD GRADE CHILDREN 2009-2010

General Information:

- The sampling frame for this survey was all public and BIA schools with five or more students in third grade (231 schools with 6,662 students in third grade). The sampling frame was stratified by the urban/rural designation of the county. Schools within the urban/rural strata were ordered by percent of students participating in the free/reduced price meal program, then 47 schools were systematically selected. If a school refused to participate, a school within the same sampling strata was randomly selected. Data is available for all 47 sampling strata; 37 original schools and 10 replacement schools.
- A total of 1,499 children received an oral health screening – 90 percent of the third grade children enrolled in the 47 participating schools.
- Unless otherwise noted, all data presented have been adjusted for the sampling scheme and non-response within each school.
- Data analyses were completed using the Survey Procedures within SAS 9.1. *Confidence Intervals (C.I. (95%)) indicate with 95 percent confidence that the percentage of actual North Dakota third grade children having the indicated health condition fall within the interval range.

Comparison of North Dakota schools in the sampling frame, survey schools and children screened

	# Schools	# Third Graders	Free/Reduced Lunch	White	American Indian
All schools in sampling frame	213	6,662	35.9%	82.0%	11.4%
Survey schools	47	1,669	36.0%	80.7%	14.2%
Children screened**	47	1,499	NA	78.9%	14.5%
Survey response rate		89.8%			

Source: North Dakota Department of Public Instruction and Basic Screening Survey Results

**Unadjusted percent of children who provided an answer (missing and unknown are excluded)

Table 1A: Demographic Characteristics of Children Screened (Including Missing/Unknown)

Characteristic	Number of Children	Unadjusted Percent
Race/Ethnicity (n=1,499)		
White	1,162	77.5
Black/African American	24	1.6
Hispanic/Latino	16	1.1
American Indian	214	14.3
Asian	9	0.6
Multi-racial/Other	47	3.1
Missing/Unknown	27	1.8
Gender (n=1,499)		
Male	782	52.2
Female	708	47.2
Missing/Unknown	9	0.6
Age (n=1,499)		
8 years	689	46.0
9 years	766	51.1
10 years	35	2.3
11 years	1	0.1
Missing/Unknown	8	0.5

Table 1B: Demographic Characteristics of Children Screened (Without Missing/Unknown)

Characteristic	Number of Children	Unadjusted Percent
Race/Ethnicity (n=1,472)		
White	1,162	78.9
Black/African American	24	1.6
Hispanic/Latino	16	1.1
American Indian	214	14.5
Asian	9	0.6
Multi-racial/Other	47	3.2
Gender (n=1,490)		
Male	782	52.5
Female	708	47.5
Age (n=1,491)		
8 years	689	46.2
9 years	766	51.4
10 years	35	2.3
11 years	1	0.1

Table 2: Responses to Questions Posed to Children Screened (Without Missing/Unknown)

Question	Number of Children	Unadjusted Percent
Do you have your own toothbrush? (n=1,495)		
Have my own	1,429	95.6
Share one	24	1.6
Do not have one	42	2.8
Did you brush your teeth today? (n=1,496)		
Yes	1,026	68.6
No	470	31.4
Did you floss your teeth today? (n=1,495)		
Yes	212	14.2
No	1,283	85.8
Have you ever been to a dentist? (n=1,496)		
Yes	1,435	95.9
No	61	4.1
Do you drink milk every day? (n=1,493)		
Yes	1,276	85.5
No	217	14.5
Number of cans of soda/juice in last week (n=1,483)		
0	193	13.0
1	344	23.2
2	245	16.5
3	177	11.9
4	95	6.4
5	429	28.9

Table 3: Oral Health of North Dakota's Third Grade Children

Condition	Percent (% yes)	*C.I. (95%)	
History of decay (n=1,499)	54.6	52.0	57.1
Treated decay (n=1,499)	45.6	43.0	48.1
Untreated decay (n=1,499)	20.7	18.6	22.7
Rampant decay (n=1,499)	11.6	10.0	13.3
Dental sealants (n=1,499)	60.4	57.9	62.9
Treatment urgency (n=1,498)			
None	79.9	77.9	81.9
Early care needed	18.2	16.3	20.2
Urgent care needed	1.9	1.2	2.6
Need early/urgent treatment (n=1,498)	20.1	18.1	22.1

Table 4: Oral Health of North Dakota's Third Grade Children by Race

Condition	White Non-Hispanic (n=1,162)			American Indian (n=214)			Other Minorities (n=96)		
	Percent	*C.I. (95%)		Percent	*C.I. (95%)		Percent	*C.I. (95%)	
History of decay	49.2	46.2	52.1	80.8	75.6	86.1	59.7	49.7	69.8
Treated decay	40.8	37.9	43.7	69.8	63.7	76.0	46.7	36.5	56.9
Untreated decay	16.8	14.6	18.9	39.1	32.5	45.8	26.7	17.6	35.8
Rampant decay	8.6	6.9	10.2	28.7	22.6	34.8	10.6	4.3	16.9
Dental sealants	59.4	56.6	62.3	73.8	67.9	79.7	46.9	36.6	57.1
Treatment urgency									
None	83.7	81.6	85.8	60.9	54.2	67.5	75.7	66.9	84.4
Early care needed	14.7	12.7	16.8	36.1	29.5	42.6	19.9	11.8	28.1
Urgent care needed	1.6	0.8	2.3	3.1	0.8	5.3	4.4	0.1	8.7
Need treatment (early & urgent)	16.3	14.2	18.4	39.1	32.5	45.8	24.3	15.6	33.1
Brushed teeth today = Yes	70.6	68.0	73.3	58.6	52.0	65.2	70.0	61.0	79.1
Have own toothbrush = Yes	97.7	96.9	98.6	83.9	79.0	88.9	97.8	94.7	100.0
Drinks milk daily = Yes	87.0	85.0	89.0	79.2	73.6	84.8	78.2	69.8	86.7
Number cans soda/juice (mean)	2.5	2.4	2.6	2.9	2.7	3.2	3.2	2.8	3.6
Lives in urban area	75.1	72.5	77.6	15.4	10.5	20.3	76.5	67.9	85.1

Table 5: Oral Health of North Dakota's Third Grade Children by Urban/Rural Status

Condition	Urban – All Races (n=999)			Rural – All Races (n=500)		
	Percent	*C.I. (95%)		Percent	*C.I. (95%)	
History of decay	49.7	46.6	52.8	64.3	60.0	68.6
Treated decay	41.3	38.3	44.4	54.1	49.6	58.6
Untreated decay	17.1	14.7	19.4	28.0	24.0	32.0
Rampant decay	8.4	6.6	10.1	18.3	14.7	21.8
Dental sealants	58.4	55.3	61.4	64.5	60.1	68.8
Treatment urgency						
None	83.3	81.0	85.6	73.0	69.0	76.9
Early care needed	14.6	12.4	16.8	25.5	21.6	29.4
Urgent care needed	2.1	1.2	3.0	1.6	0.5	2.6
Need treatment (early & urgent)	16.7	14.4	19.0	27.0	23.1	31.0
Race = White	89.1	87.2	91.1	59.0	54.5	63.4
Brushed teeth today = Yes	69.5	66.6	72.3	67.1	62.8	71.3
Drinks milk daily = Yes	86.3	84.2	88.5	83.3	79.8	86.7
Number cans soda/juice (mean)	2.6	2.5	2.7	2.7	2.5	2.8

Table 6A: Oral Health of North Dakota's Third Grade Children by Urban/Rural Status (white non-Hispanic children only)

Condition	Urban – White non-Hispanic (n=870)			Rural – White non-Hispanic (n=292)		
	Percent	*C.I. (95%)		Percent	*C.I. (95%)	
History of decay	47.9	44.5	51.2	53.0	47.0	59.1
Treated decay	40.0	36.7	43.3	43.2	37.1	49.3
Untreated decay	15.4	13.0	17.8	21.0	16.3	25.7
Rampant decay	7.5	5.7	9.3	11.7	7.6	15.8
Dental sealants	59.7	56.5	63.0	58.5	52.5	64.4
Treatment urgency						
None	84.9	82.5	87.3	80.2	75.6	84.8
Early care needed	13.5	11.2	15.8	18.4	13.9	22.9
Urgent care needed	1.6	0.8	2.4	1.4	0.0	2.8
Need treatment (early & urgent)	15.1	12.7	17.5	19.8	15.2	24.4

Table 7: Oral Health of North Dakota's Third Grade Children by Brushing Status

Condition	Brushed Teeth Today (n=1,026)			Did Not Brush Teeth Today (n=470)		
	Percent	*C.I. (95%)		Percent	*C.I. (95%)	
History of decay	50.1	47.0	53.2	64.0	59.7	68.3
Treated decay	43.0	39.9	46.0	50.9	46.4	55.4
Untreated decay	17.7	15.4	20.0	27.3	23.3	31.3
Rampant decay	11.2	9.3	13.2	12.6	9.6	15.6
Dental sealants	63.0	60.0	66.0	54.7	50.1	59.2
Treatment urgency						
None	82.9	80.6	85.2	73.1	69.1	77.1
Early care needed	15.9	13.6	18.1	23.5	19.7	27.3
Urgent care needed	1.2	0.6	1.9	3.4	1.8	5.1
Need treatment (early & urgent)	17.1	14.8	19.4	26.9	22.9	30.9
Race/Ethnicity						
White	81.0	78.7	83.4	74.5	70.9	78.2
American Indian	12.3	10.4	14.1	19.2	15.9	22.4
Other	6.7	5.1	8.2	6.3	4.1	8.6

Table 8: Oral Health of North Dakota's Third Grade Children by Daily Milk Drinking

Condition	Drinks Milk Every Day (n=1,276)			Does Not Drink Milk Every Day (n=217)		
	Percent	*C.I. (95%)		Percent	*C.I. (95%)	
History of decay	53.2	50.4	55.9	61.2	54.7	67.8
Treated decay	44.7	42.0	47.5	49.0	42.2	55.7
Untreated decay	19.4	17.2	21.6	28.1	22.0	34.2
Rampant decay	10.4	8.7	12.1	18.8	13.4	24.1
Dental sealants	61.8	59.1	64.5	52.1	45.3	58.9
Treatment urgency						
None	80.9	78.8	83.1	73.6	67.6	79.5
Early care needed	17.5	15.4	19.6	22.3	16.7	28.0
Urgent care needed	1.6	0.9	2.2	4.1	1.4	6.7
Need treatment (early & urgent)	19.1	16.9	21.2	26.4	20.5	32.4
Race/Ethnicity						
White	80.6	78.6	82.7	69.9	63.9	75.8
American Indian	13.3	11.7	15.0	20.4	15.5	25.2
Other	6.0	4.7	7.4	9.8	5.8	13.7

Table 9: Oral Health of North Dakota's Third Grade Children by Number of Sweetened Beverages During Last Week (All Races)

Condition	0-1 Cans (n=553)			2-3 Cans (n=422)			4-5 Cans (n=524)		
	Percent	*C.I. (95%)		Percent	*C.I. (95%)		Percent	*C.I. (95%)	
History of decay	51.7	47.5	55.9	51.4	46.6	56.2	60.0	55.8	64.2
Treated decay	42.7	38.5	46.9	44.0	39.2	48.8	49.8	45.5	54.1
Untreated decay	18.1	14.9	21.3	19.8	16.0	23.6	24.1	20.4	27.8
Rampant decay	8.3	5.8	10.7	10.5	7.5	13.4	16.1	13.0	19.3
Dental sealants	62.6	58.6	66.7	62.4	57.6	67.2	56.5	52.2	60.7
Treatment urgency									
None	82.6	79.5	85.7	81.6	77.9	85.3	75.7	72.0	79.4
Early care needed	16.2	13.1	19.2	16.8	13.3	20.4	21.5	17.9	25.0
Urgent care needed	1.2	0.3	2.1	1.6	0.4	2.8	2.9	1.4	4.3
Need treatment (early & urgent)	17.4	14.3	20.5	18.4	14.7	22.1	24.3	20.6	28.0
Race/Ethnicity									
White	82.9	79.8	85.9	81.4	77.9	84.8	73.3	69.6	76.9
American Indian	12.1	9.5	14.6	13.9	11.0	16.8	17.2	14.3	20.1
Other	5.1	3.3	7.0	4.7	2.7	6.7	9.5	6.9	12.1

Table 10: Oral Health of North Dakota's Third Grade Children by Number of Sweetened Beverages During Last Week (White children only)

Condition	0-1 Cans – White Only (n=444)			2-3 Cans – White Only (n=339)			4-5 Cans – White Only (n=379)		
	Percent	*C.I. (95%)		Percent	*C.I. (95%)		Percent	*C.I. (95%)	
History of decay	46.7	42.0	51.5	45.5	40.1	50.9	55.3	50.2	60.4
Treated decay	38.4	33.7	43.0	37.9	32.5	43.2	46.3	41.2	51.4
Untreated decay	14.3	11.0	17.6	16.0	12.1	19.9	20.3	16.2	24.4
Rampant decay	7.2	4.5	9.8	8.1	5.2	11.0	10.6	7.4	13.7
Dental sealants	62.1	57.6	66.7	61.4	56.0	66.8	54.5	49.4	59.6
Treatment Urgency									
None	86.2	83.0	89.5	85.3	81.6	89.1	79.3	75.2	83.5
Early care needed	12.7	9.6	15.8	13.2	9.6	16.8	18.5	14.5	22.4
Urgent care needed	1.1	0.1	2.1	1.4	0.2	2.7	2.2	0.7	3.7
Need treatment (early & urgent)	13.8	10.5	17.0	14.7	10.9	18.4	20.7	16.5	24.8

Table 11: Oral Health of North Dakota's Third Grade Children by Free and Reduced Lunch (FRL) Status of School

Condition	< 25% on FRL (n=540)			25.0-49.9% on FRL (n=594)			≥ 50.0% on FRL (n=365)		
	Percent	*C.I. (95%)		Percent	*C.I. (95%)		Percent	*C.I. (95%)	
History of decay	47.8	43.6	52.0	52.0	47.8	56.1	68.6	64.1	73.2
Treated decay	40.4	36.3	44.6	43.5	39.4	47.7	56.4	51.4	61.3
Untreated decay	14.8	11.8	17.7	19.2	16.0	22.4	31.6	26.9	36.4
Rampant decay	5.8	3.8	7.8	11.9	9.1	14.6	19.8	15.8	23.9
Dental sealants	61.0	57.0	65.1	56.1	51.9	60.2	66.5	61.7	71.2
Treatment urgency									
None	85.4	82.5	88.4	82.0	78.8	85.1	68.3	63.6	73.1
Early care needed	13.3	10.5	16.1	16.9	13.9	19.9	27.6	23.0	32.1
Urgent care needed	1.3	0.3	2.3	1.1	0.3	2.0	4.1	2.0	6.1
Need treatment (early & urgent)	14.6	11.6	17.5	18.0	14.9	21.2	31.7	26.9	36.4
Race/Ethnicity									
White	94.5	92.6	96.5	86.0	83.2	88.8	45.3	41.6	49.1
American Indian	1.9	0.7	3.1	4.2	2.6	5.8	49.0	45.9	52.1
Other	3.6	2.0	5.1	9.8	7.4	12.2	5.6	3.3	8.0

NOTE: Information on percent of students on FRL was not available for Apple Creek Elementary in Bismarck (n=10).