

ORAL HEALTH – DATA BRIEF

2017-2018 North Carolina Third Grade Basic Screening Survey

Background

Oral health is intimately related to one's overall health. Due to the potential impact of early dental caries and disease in early childhood on a child's future dental health trajectory into adulthood, early surveillance and detection of problems is paramount. The 2017-2018 Third Grade Basic Screening Survey allows us to look at the oral health needs among North Carolina's children as they progress beyond kindergarten in the public education system.

Methods

Assessment sites were chosen based on a random sample of North Carolina Public Schools developed in partnership by Associations of State and Territorial Dental Directors (ASTDD). ASTDD worked with the Oral Health Section to obtain targeted schools that offered representative samples of both the entire state and each of 10 sub-divided regions of the state. Schools were chosen using free and reduced lunch participation rates, rural or urban location, and total student enrollment. Public schools were assigned, and assessments were completed by public health dental hygienists working within each region. Third grade students whose parents positively consented for their child to be assessed were included in the population sampled. Specific oral health measurements assessed were as follows: % *untreated decay* (% UD); % *treated decay* (% TD); % *no decay* (% ND); % *received at least one sealant [permanent or primary molar* (% PSLs); and % *needing urgent dental care* (% UN).

Results

Table 2 shows the results for the Third Grade cohort sampled for each of the ten regions within the state's local health districts.

TABLE 2 - Oral Health Status

<u>Region</u>	<u># Screened</u>	<u>% UD</u>	<u>% TD</u>	<u>% ND</u>	<u>% PSLs</u>	<u>% UN</u>
1	797	11.8	50.6	42.8	47.6	0.9
2	770	13.5	51.7	40.8	49.9	4.2
3	876	13.6	44.6	49.7	48.1	1.9
4	798	9.4	29.6	64.2	27.8	0.6
5	669	11.1	24.1	69.2	32.4	4.0
6	298	17.4	31.2	57.4	32.6	5.0
7	520	9.8	35.4	58.7	28.8	2.1
8	863	10.3	37.9	55.2	39.9	0.8
9	392	18.9	36.7	51.8	30.4	3.3
10	757	9.1	35.1	59.7	36.9	1.1
State Totals	6740	11.9	38.6	54.5	45.9	2.1

Discussion

Tooth decay (cavities) is one of the most common chronic conditions of childhood in the United States. About 1 of 5 (20%) children aged 5–11 years have at least one untreated decayed tooth.¹ Poor oral health can have a detrimental effect on children’s quality of life, their performance at school, and their success later in life.²

The NC OHS staff successfully obtained representative samples of 6740 third grade students for both overall state oral health data and 10 regional sub-divisions of the state. Results from this school-age surveillance effort show that the statewide average for *untreated decay* for this age group was 11.9%, compared to a younger kindergarten age group assessed for the same time period at 15.7%. National estimates of childhood dental caries are at 13.3 percent for ages 6-19 years.³ Greater than one half of the group (54.5%) had *no decay* and no evidence of previous dental treatment.

Regional rates for *untreated decay* ranged from 9.1 to 18.9%; and, rates for *no decay* ranged from 40.8% to 69.2%. The regional differences in these and other rates can be used to inform communities about the specific oral health needs of this elementary grade level of students in their specific region; and, this information can influence the oral health program planning for the area. Incorporation of the oral health regional plans throughout the state of North Carolina can lead the direction of a more comprehensive statewide initiative.

References

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2. Kwan SY, Petersen PE, Pine CM, Borutta A. 2005. Health-promoting schools: An opportunity for oral health promotion. Bulletin of the World Health Organization 83 (9): 677-685.
3. 2017. Quick Stats. Prevalence of untreated caries in permanent teeth among children and adolescents aged 6-19 years, by age group. National Health and Nutrition Examination Survey [NHANES]. U.S., 2011-2014. MMWR 2017; 66:36.

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