

THIRD GRADE ORAL HEALTH DATA BRIEF

2017-2018 North Carolina Oral Health Section Child Basic Screening Survey

Background

The Centers for Disease Control and Prevention states that tooth decay is the most common chronic condition of childhood. Poor oral health can have a detrimental effect on children's quality of life, their performance at school, and their success later in life.¹ Due to the impact of dental disease in childhood, oral health surveillance in third graders has the top priority in the NC Oral Health Section's Oral Surveillance Schedule and takes place every five years. The 2017-2018 Third Grade Basic Screening Survey reflects oral health data on school-aged children in the public education system.

Methods

Using the Basic Screening Survey (BSS) for Children developed by the Association of State and Territorial Dental Directors (ASTDD), screenings were conducted by calibrated OHS public health dental hygienists in public schools selected to represent both the state overall and each of 10 Regions of the state. ASTDD assisted in site identification using free and reduced lunch participation rates, rural or urban location, and total student enrollment. Prior to screening, parental consent for participation was obtained.

Results

A total of 6,740 third grade students participated in this oral health assessment. Results from this school-age surveillance effort show that the state average for untreated decay for this age group was 11.9%, with a range of 9.1% to 18.9%. Fortunately, over half of the group (54.5%) had no decay and no evidence of previous dental treatment.

Table 1: NC Oral Health Status – Third Grade 2017-2018

Oral health data for the state and its ten regions.

Region	# Screened	% UD	% TD	% ND	% PSLs	% UN
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 Total	6,740	11.9	38.6	54.5	45.9	2.1

Key: % 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).

Discussion

Although a direct comparison cannot be made between national rates and the state, the national estimate of childhood dental caries is 15.3% for children ranging in age from 6-11 years,² while North Carolina's decay rate is lower at 11.9%. Results for untreated decay throughout the regions varied widely from 9.1% to 18.9%. Region 9 has the highest percentage of untreated decay (by several percentage points) and data should be monitored closely in future surveillance activities.

References

1. 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.
2. 2018. Prevalence of total and untreated dental caries in permanent teeth among children and adolescents aged 6-19 years, by age group. *CDC: MMWR* 2018. July 25.

**For more information about the North Carolina Oral
Epidemiology Program, contact:** Division of Public Health

Oral Health Section main line: 919 707-5480

Or check the website at: <https://publichealth.nc.gov/oralhealth/>

