

KINDERGARTEN ORAL HEALTH DATA BRIEF

2018-2019 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 early childhood, oral health surveillance in kindergarteners has the highest priority in the NC Oral Health Section's Oral Surveillance Schedule and takes place annually. The 2018-2019 Kindergarten Basic Screening Survey reflects oral health data as children close their early childhood stage and transition into their school-aged stage, entering 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 9648 kindergarten 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 16%, with a range of 13.3% to 21.4%. Fortunately, nearly 2/3 of the group (64%) had no decay and no evidence of previous dental treatment.

Table 1: NC Oral Health Status – Kindergarten 2018-2019

Oral health data for the state and its ten regions.

Region	# Screened	% UD	% TD	% ND	% PSLs	% UN
1	708	13.3	32.2	56.2	2.7	1.7
2	703	17.9	28.7	57.2	1.4	4.6
3	841	18.1	27.9	59.8	4.0	2.3
4	1740	12.2	22.6	67.6	0.7	2.3
5	1152	16.6	26.4	63.1	2.3	3.2
6	630	16.5	25.4	61.3	0.0	3.0
7	1277	15.7	13.6	74.4	0.9	1.6
8	1007	13.7	25.8	63.4	2.2	2.5
9	627	18.7	15.3	69.2	1.8	1.9
10	963	21.4	25.9	57.8	2.5	1.5
State Total	9648	16.0	23.8	64.0	2.1	2.4

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 slightly higher for 5- to 6-year-old children at 16%. Results for untreated decay throughout the regions varied widely from 12.2% to 21.4%. Region 10 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.

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