

# ORAL HEALTH – DATA BRIEF

## 2016-2017 North Carolina Kindergarten Basic Screening Survey

### Background

A child's oral health is important to his/her overall health status because if left untreated, dental caries, [i.e. tooth decay] causes unnecessary pain and can impact a child's ability to eat, speak, and learn [1]. National estimates of childhood dental caries are at 13.3 percent for ages 6-19 years. [2] 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 importance of improving the oral health of young children is recognized and supported by the very first goal of the Healthy People 2020 Oral Health Indicators - *OH-1.1 Reduce the proportion of children aged 3 to 5 years with dental caries experience in their primary teeth.* [3]

The *NC Oral Health Surveillance Plan [2016-2020]* [4] provides a systematic plan for gathering, analyzing, and disseminating information about statewide oral health needs so that regional strategic plans can be developed based on evidence, and implemented following area specific action plans. According to the *NC Oral Health Surveillance Plan for 2016-17* [4], school age children in kindergarten were screened throughout the state. The data generated by these surveys form the basis for planning future dental public health initiatives.

### Methods

Public school kindergarteners were screened based on a random sample design developed in partnership with the Associations of State and Territorial Dental Directors [ASTDD] [5] to obtain a representative sample of the entire state. Sampling was accomplished by the NC Oral Health Section [OHS] regionally assigned field dental hygienists at the assigned elementary schools. Kindergarten 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); % who received sealant [permanent or primary molar] (%PSLS); and % needing urgent dental care (%UN).

### Results

**Table 1** shows the results for Kindergarteners sampled for each of the ten regions within the state's local health districts.

**TABLE 1- Oral Health Status**

<u>Region</u>	<u># Screen</u>	<u>% UD</u>	<u>% TD</u>	<u>% ND</u>	<u>% PSLS</u>	<u>% UN</u>
1	800	14.9	35.4	49.8	10.4	3.8
2	806	14.5	34.4	51.1	6.6	1.9
3	854	15.1	26.7	58.2	1.9	1.9
4	1781	9.5	17.9	72.7	1.3	1.3
5	1099	17.8	25.4	56.8	6.4	3.6
6	745	15.4	22.6	62.0	*	3.0
7	1202	12.8	19.5	67.7	2.5	2.0
8	1078	11.4	22.4	66.1	0.5	2.0
9	570	17.9	14.7	67.4	3.7	0.5
10	960	19.8	31.7	48.5	*	0.9
<b>State Totals</b>	9895	14.3	24.4	61.3	5.4	2.1

\* % PSLS was not measured in Regions 6 & 10

## 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.<sup>1</sup> Poor oral health can have a detrimental effect on children’s quality of life, their performance at school, and their success later in life.<sup>2</sup>

The NC OHS staff successfully obtained a representative sample of 9895 Kindergarten 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 14.3%. National estimates of childhood dental caries are at 13.3 percent for ages 6-19 years.<sup>3</sup> In this cohort of students, nearly 2/3 of the group (61.3%) had *no decay* and no evidence of previous dental treatment. Regional rates for *untreated decay* ranged from 9.5% to 19.8%; and, rates for *no decay* ranged from 48.5% to 72.7%. 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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4. 2015. *NC Oral Health Surveillance Plan [2016-2020]*. NC DHHS. Division of Public Health – Oral Health Section.
5. 2017. The Basic Screening Survey: A Tool for Oral Health Surveillance Not Research. ASTDD. Reno, Nevada.

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