

## *Make Your Smile Count!*

### Third Grade Oral Health Screening Survey, 2013-15

## Disparities in Oral Health

Many factors can affect how much disease people experience. In the U.S., the amount of oral diseases people experience have been shown to differ based on their education level, income, race and ethnicity.<sup>1</sup> Differences in the oral health status of groups of people are often referred to as “disparities” in oral health.

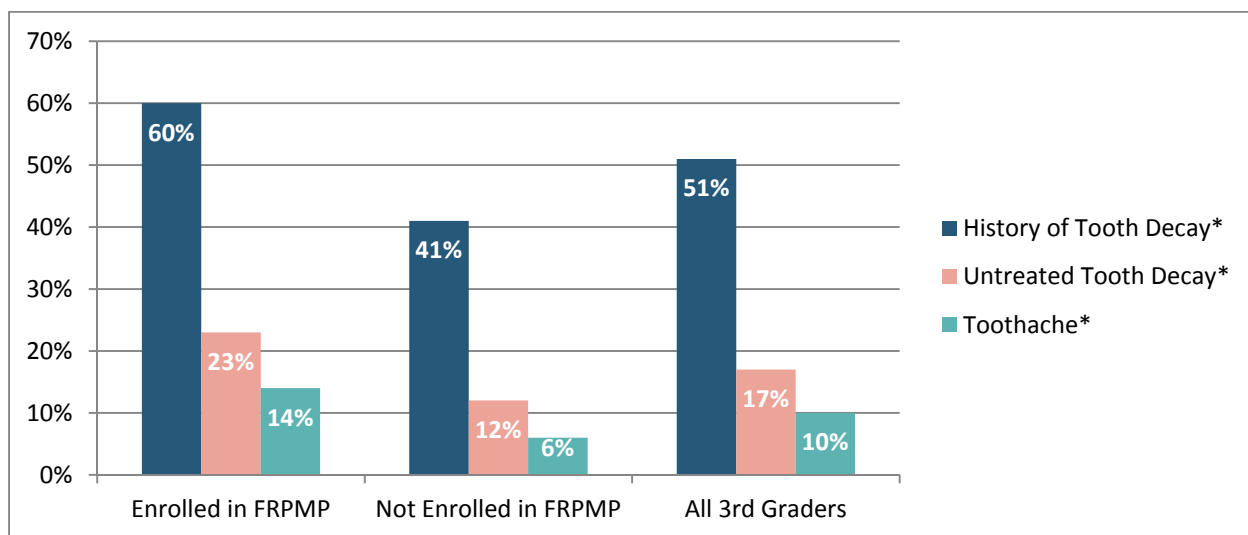
This data brief looks at disparities in the oral health of 3rd grade schoolchildren in Ohio related to family income, county of residence, race and ethnicity.

#### Oral Health Status and Family Income

Family income was estimated by whether a child was enrolled in the Free and Reduced Price Meal Program (FRPMP) at school. Children are eligible for this program if their family income falls below 185 percent of the federal poverty level (FPL). For the 2014-15 school year, 185 percent of the FPL for a family of four was \$44,123 per year.

As seen in Figure 1, children from families with lower incomes (i.e., “Enrolled in FRPMP”) were more likely to have a history of tooth decay, untreated tooth decay and report toothaches. A history of tooth decay means that the child had cavities, fillings, crowns, or teeth missing due to cavities.

**Figure 1: Percentage of 3rd Grade Schoolchildren with History of Tooth Decay, Untreated Tooth Decay and Toothache, by Family Income, 2013-15**



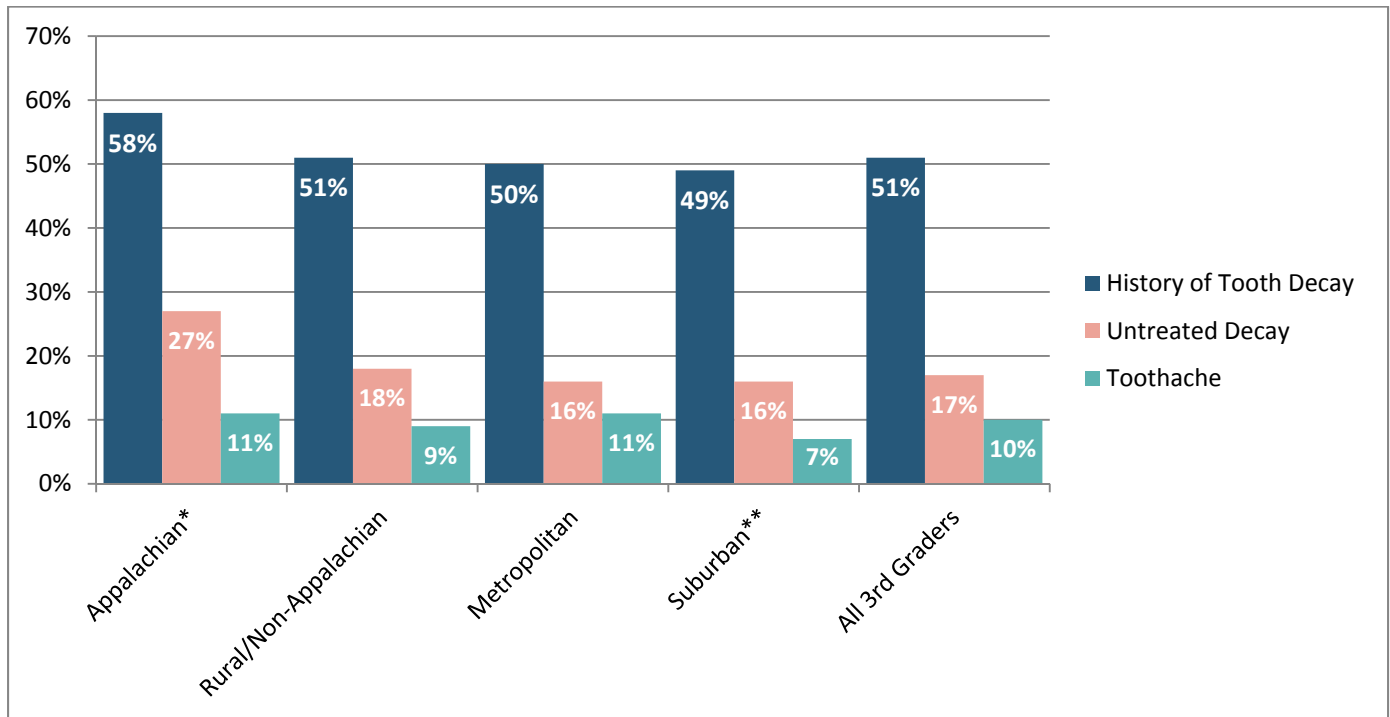
\* Statistically significant at  $p < .05$

<sup>1</sup> Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/oral-health>. Accessed 11/17/16.

## Oral Health Status and County of Residence

- Children in Appalachian counties continue to have poorer oral health than children in metropolitan, suburban or rural, non-Appalachian counties. They are much more likely to have a history of tooth decay and untreated tooth decay (Figure 2.)
- Children in suburban counties are less likely to report toothaches.

**Figure 2: Percentage of 3rd Grade Schoolchildren with a History of Tooth Decay, Untreated Tooth Decay and Toothache, by County Type, 2013-15**



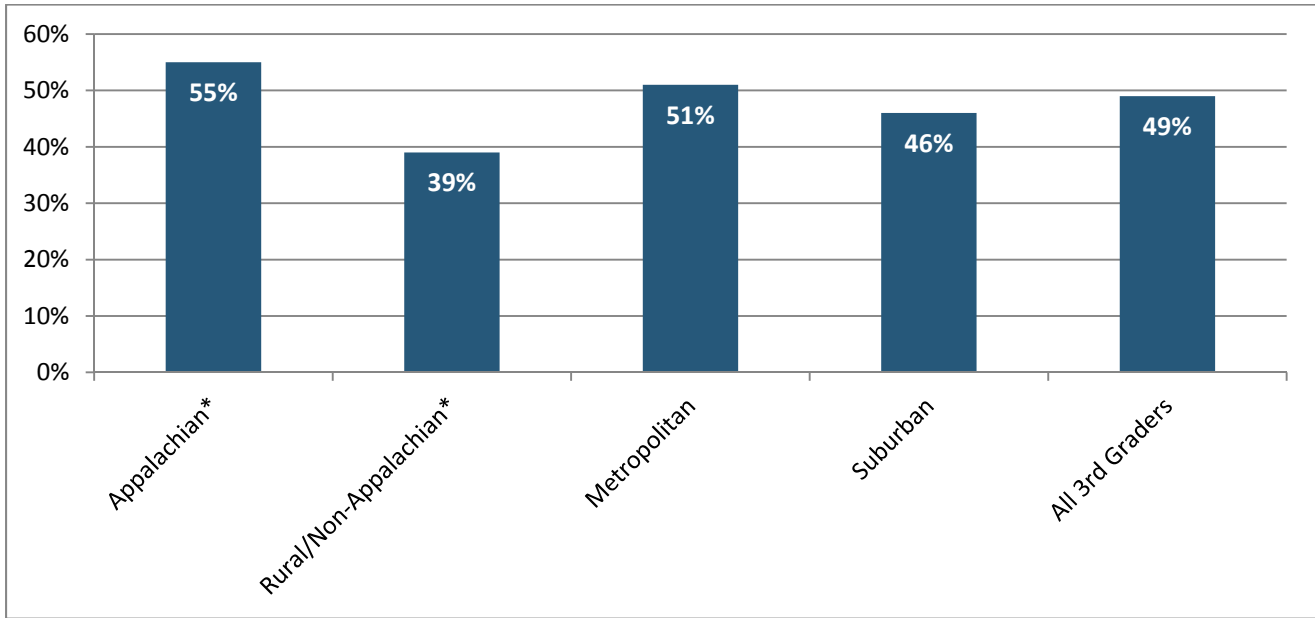
\* Statistically significant at  $p < .05$  for history of tooth decay and untreated decay

\*\* Statistically significant at  $p < .05$  for toothache

However, many more children in Appalachian counties had dental sealants compared to children who live elsewhere (Figure 3). The Ohio Department of Health supports school-based sealants programs in many Appalachian counties.



**Figure 3: Percentage of 3rd Grade Schoolchildren with One or More Dental Sealants, by County Type, 2013-15**

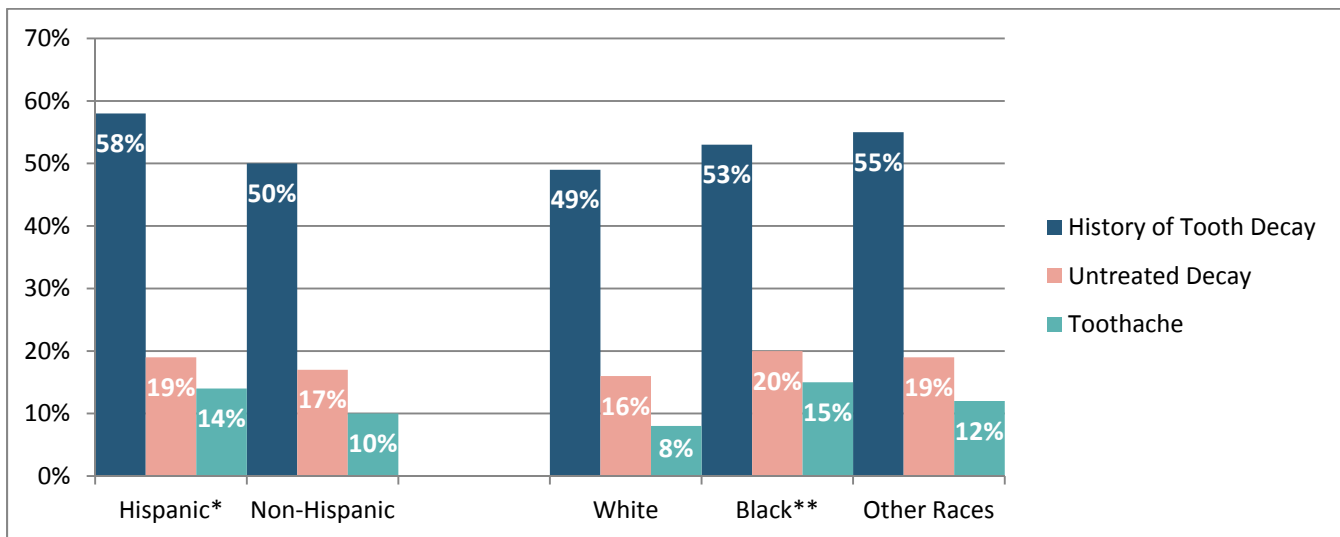


\* Statistically significant at  $p < .05$

### Oral Health Status and Race/Ethnicity

Hispanic children, regardless of race, were more likely to have a history of tooth decay, that is, they were more likely to have cavities, fillings, crowns, or teeth missing due to cavities (Figure 4). Parents of Black or African American children were more likely to report that their child had a toothache in the last six months than parents of children of other races.

**Figure 4: Percentage of 3rd Grade Schoolchildren with a History of Tooth Decay, Untreated Tooth Decay and Toothache by Race and Ethnicity, 2013-15**



\* Statistically significant at  $p < .05$  for history of tooth decay

\*\* Statistically significant at  $p < .05$  for toothache

## Methods

The Ohio Department of Health conducted an open-mouth oral health screening survey of 3rd grade schoolchildren during the 2013-15 school years. A randomized sample of 440 public elementary schools was selected to yield data for Ohio and each of its 88 counties. Approximately 16,000 schoolchildren were screened.

With consent from parents, schoolchildren were screened by a trained team of dental hygienists and dentists. Four indicators of oral health were measured: toothaches, history of tooth decay (cavities, fillings, crowns or teeth missing due to cavities) untreated tooth decay, and the presence of dental sealants.

The consent form asked parents questions about getting dental care for their child, such as how recently their child had been to the dentist, if they have dental insurance and their ability to get needed dental care.

Other data collected on each child were race, ethnicity and enrollment in the Free and Reduced Price Meal Program (as an estimate of family income.) Children were classified as to whether they lived in a metropolitan, suburban, Appalachian or rural/non-Appalachian county. These data were collected so disparities in oral health status and access to dental care could be studied.

**For more information, please contact the Oral Health Program at 614/466-4180 or visit our website at <http://www.odh.ohio.gov/odhprograms/ohs/oralhealth.aspx>.**