Introduction
Every five years, Utah Department of Health conducts a comprehensive statewide dental screening survey of elementary school students in grades 1–4 to measure the extent of untreated tooth decay, caries experience (cavities), the prevalence of dental sealants, and the need for dental care.

Methods
The 2015–16 Utah Oral Health Survey was conducted from September 2015 to January 2016. This project was a joint collaboration of the Utah Department of Health Oral Health Program and Data Resources Program. The survey was administered using the Association of State and Territorial Dental Directors (ASTDD) “Basic Screening Survey: An Approach to Monitoring Community Oral Health” protocol and included two separate data collection methods: a parent questionnaire and a dental screening. Close to 2,000 children, ages 6- to 9-years-old, received dental screenings from a statewide representative sample of 47 elementary schools in Utah. This report presents the key findings from the survey. Comparisons are made to the prior 2010 survey and national Healthy People 2020 (HP2020) oral health objectives.

Results
Caries Experience
Caries experience is defined as the presence of either untreated or treated (restored or filled) decay and can be identified as past (fillings, crowns, or teeth that were extracted) or present (untreated tooth decay or cavities). The 2015–2016 survey demonstrated that a substantial number of Utah children still suffer from this preventable disease. Close to two-thirds (65.5%) of children aged 6–9 have experienced dental caries. The prevalence of caries experience increased with age (Figure 1). Compared with the 2010 survey, the prevalence of caries experience has increased significantly from 51.7% to 65.5%, and has unfortunately surpassed the HP2020 target of 49.0% (Figure 2).

Untreated Decay
Nearly one-fifth (19.1%) of Utah children had untreated dental decay (Figure 1). This has serious consequences if left untreated, including unnecessary pain and suffering, difficulty chewing, difficulty speaking, and absenteeism from school. The prevalence did not change substantially compared with the 2010 survey (17.0%). However, Utah has met the national target for the HP2020 target of 25.9%.

Use of Dental Sealants
Dental sealants are a preventive practice used by dental providers to decrease the risk of tooth decay. However, sealants remain underused. In Utah, less than half (44.9%) of Utah children aged 6–9 had dental sealants (Figure 2). There has been a significant increase in the usage

### KEY FINDINGS
- 2 in 3 (66%) children experienced caries (cavities).
- Prevalence of caries experience has increased significantly from 51.7% to 65.5%.
- 1 in 5 (19%) children had untreated tooth decay.
- 1 in 5 (19%) children were identified as needing immediate (early and urgent) dental treatment.
- 1 in 6 (18%) children had no dental insurance; 26% of Hispanic children did not have dental insurance.
- Non-White children a higher caries rate (77% vs. 66%) and a lower rate of utilization of dental sealants (33% vs. 45%) compared to the state average.
- 1 in 7 (15%) children had not been to the dentist for more than one year.

### Children's Oral Health Status by Age
*Figure 1. Percentage of children aged 6–9 with caries experience, untreated decay, and sealants, Utah, 2015–2016*

Source: Utah Oral Health Survey
of sealants compared with the 2010 survey (26.1%). Utah has met the HP2020 target of dental sealants (28.1%). While improvements have been made since 2010, there are still more than half of young children who could benefit from this highly effective, safe, and low-cost intervention.

**Dental Treatment Needs**

Visiting a dentist is generally used as an indicator to measure access to services. Fifteen percent of parents reported that their child had not been to the dentist for more than one year. It was also alarming to note that two percent of the parents indicated their child had never been to a dentist. Routine visits to a dentist are important for early identification and prevention of dental problems.

Overall, one-fifth (19.4%) of children were found to need immediate (early and urgent) dental treatment. Of these, 17.9% of children were identified as needing “early dental care” (needing to see a dentist within the next several weeks). The remaining 1.5% were in need of “urgent treatment” which is defined as needing dental care within 24 to 48 hours because of pain, infection, or swelling.

There were persistent disparities in oral health among ethnic groups. More than a quarter (25.7%) of children of Hispanic origin did not have dental insurance. They also experienced higher rates of untreated decay compared with non-Hispanic counterparts (25.3% vs. 17.9%). Similar outcomes of poorer oral health were also observed for children of racial minorities (non-White), specifically their higher caries rate (76.6% vs. 65.6%) and lower rate of utilization of dental sealants (32.9% vs. 44.9%) compared to the state average. Children who participated in the Free and Reduced Lunch Program (which was used as proxy for lower-income households) had substantially higher rates of cavities and untreated decay.

**Conclusions**

Oral health is an integral component of overall health. Favorable oral health in childhood can lead to better health later in life. The 2015–2016 survey results highlight the concerning levels of oral disease among Utah elementary school children. Other factors that play a significant role for caries experience include poor dental hygiene (infrequent brushing or flossing) and poor nutrition (excessive sugar intake). Significant improvement has been observed in the utilization of dental sealants, which helps prevent dental decay mainly for primary and permanent molars. This noted progress provides us an assurance that dental care has increased and our public health sealant programs are effective and doing a better job of providing essential oral health services to children in Utah.

While improvements have been made since 2010, results of the survey demonstrate that substantial disparities exist in oral health for children in Utah based on race, ethnicity, and income. Given the extent of the problem and the large numbers of children being affected, oral diseases are still major public health problems.

Tooth decay is a preventable disease. The Oral Health Program (OHP) promotes dental decay prevention methods such as fluorides, sealants, and early childhood caries intervention. The OHP also collaborates with partners in public awareness campaigns emphasizing the benefits of early and regular visits to a dentist. The OHP works closely with the Utah Oral Health Coalition to increase the number of dentists willing to see Medicaid clients. The results of the survey will be used as a guide for OHP in determining future activities, to monitor trends over time, and to improve the oral health status of Utah children.

For more information, visit [http://health.utah.gov/oralhealth](http://health.utah.gov/oralhealth).

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For additional information about this topic, contact Shaheen Hossain, PhD, Utah Department of Health, (801) 273-2855, email: shossain@utah.gov; or the Office of Public Health Assessment, Utah Department of Health, (801) 538-9191, email: chdata@utah.gov.