### Introduction

Oral health is vitally important to overall health and well-being. The risk of tooth loss from tooth decay and gum disease increases with age due to the decrease of saliva production, receding gums that expose softer root surfaces to harmful bacteria, and difficulties with maintaining proper oral health hygiene because of poor vision, chronic diseases, and physical limitations.<sup>1</sup> Tooth decay (dental caries or cavities) is one of the most common chronic diseases among children and is a significant problem for many adults in the United States (U.S.). Nationally, 31.6% of adults aged 20-44 years experienced untreated decay during 2013-2016.<sup>2</sup> Periodontitis, a serious gum infection that damages the soft tissue and bone that supports the teeth, is the most common cause of tooth loss among adults and affected about 42% of U.S. adults age 30 years and older in 2009-2014.<sup>3,4</sup> Adults are also at a higher risk of developing oral cancers and chronic diseases such as diabetes and heart disease, which may increase the risk of poor oral health.<sup>1</sup> This data brief highlights the oral health status of Florida's adults including the prevalence of dental care access and tooth loss, the association of oral health and chronic diseases, and the rates of oral cancer cases and deaths using data from the 2018 Florida Behavioral Risk Factor Surveillance System (BRFSS) and 2017 cancer statistics from the Centers for Disease Control and Prevention (CDC) and the National Cancer Institute (NCI).

### **Trends of Oral Health Indicators**

Figure 1 shows the prevalence of the oral health indicators from 2012 to 2018. During this period, the percentage of adults visiting a dentist increased by 10%, the percentage of adults aged 18 years and older who had a tooth removed because of tooth decay or gum disease decreased by 8% and the percentage of adults aged 65 years and older who had all their teeth removed decreased by 21%.



Data Source: Florida BRFSS



### **Dental Visits (Figure 2)**

- Approximately 65.7% of Florida's adults aged 18 years and older visited the dentist within the past year in 2018.
- Women (68.1%) had a higher percentage of a dental visit than men (63.0%).
- Adults aged 18 to 34 years (62.0%) had the lowest percentage of a dental visit while adults aged 65 years and older (71.5%) had the highest percentage of dental visits.
- Non-Hispanic Black adults and adults in the Other group, which included American Indian/Alaskan Native and Native Hawaiian/Pacific Islander, had a lower prevalence of a dental visit compared to non-Hispanic White and non-Hispanic Asian adults.
- Adults who made less than \$25,000 per year (50.5%) had the lower percentage of a dental visit than adults who made \$50,000 or more per year (78.1%).
- Adults with less than a high school education (50.0%) had a lower percentage of dental visits than adults with a college degree (78.4%).

#### Figure 2: Prevalence of Dental Visits Among Florida Adults, 2018



Data Source: 2018 Florida BRFSS



Data Source: 2018 Florida BRFSS

#### Permanent Tooth Removal (Figure 3)

- Among Florida's adults aged 18 years and older, 45.8% had a permanent tooth removed because of tooth decay or gum disease in 2018.
- Women had a higher prevalence of tooth loss than men (46.9% vs. 44.7%).
- The group with the highest prevalence of tooth loss were adults aged 65 years and older (67.7%).
- Almost half of non-Hispanic Black adults (49.4%) had a tooth removed, the highest among racial/ethnic groups.
- Adults with the lowest income (57.3%) had a higher percentage of tooth loss compared to adults with the highest income (36.3%).
- Adults with less than a high school diploma (64.2%) had a higher prevalence of tooth loss than adults with a college degree (34.4%).

### All Teeth Removed (Figure 4)

- About 5.6% of Florida's adults aged 18 years and older had all their teeth removed in 2018 because of gum disease or tooth decay, but among adults aged 65 years and older, the prevalence of complete tooth loss increased to 12.5%.
- As with the other dental indicators, racial and socio-economic differences were found. Of adults aged 65 years and older, non-Hispanic Black adults (26.9%) had the highest percentage of having all teeth extracted while Hispanic adults (4.7%) had the lowest percentage.
- Older adults with an annual income of less than \$25,000 (21.8%) had a higher prevalence of complete tooth removal than older adults making \$50,000 or more a year.
- Older adults with less than a high school degree (17.9%) experienced a higher prevalence of complete tooth loss than adults with more education.



Data Source: 2018 Florida BRFSS



Data Source: 2018 Florida BRFSS

#### **Dental Insurance (Figure 5)**

- Among Florida adult aged 18 years and older, 53.3% reported having dental insurance in 2018.
- Adults aged 35 to 49 years (61.3%) had the highest percentage of dental insurance while adults aged 65 years and older had the lowest percentage (43.1%).
- Among racial/ethnic groups, non-Hispanic Black adults (62.1%) had the highest prevalence of dental insurance and Hispanic adults (46.9%) had the lowest prevalence of dental insurance.
- Adults with an annual income of less than \$25,000 (40.1%) or with less than a high school diploma (38.6%) had a lower percentage of dental insurance than adults with higher incomes or more education.

#### **Chronic Diseases and Risk Behaviors**

Research has shown that chronic diseases such as diabetes, heart disease, and stroke may be associated with poor oral health.<sup>5</sup> Risk behaviors such as smoking tobacco and alcohol use can also have a negative impact on oral health and increase the risk of tooth loss.<sup>5</sup> Figures 6 and 7 highlight the prevalence of tooth removal and dental visits among adults diagnosed with chronic conditions or who participated in risk behaviors in 2018. Tooth removal because of tooth decay or gum disease is more prevalent among adults who experienced diabetes (67.3%), heart disease (68.8%), stroke (75.1%), lung disease (72.0%), obesity (50.2%), or are current smokers (59.5%) compared to all Florida adults (45.8%) (Figure 6).



Data Source: 2018 Florida BRFSS

Access to dental care improves oral health,<sup>6</sup> however, adults with the chronic conditions and risk factors in the figure below had a lower percentage of dental visits within the year compared to all Florida adults (Figure 7).



Data Source: 2018 Florida BRFSS

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#### **Oral Cancer**

Oral cancer is cancer of the mouth and back of the throat that can develop on the tongue, the tissue lining the mouth and gums, under the tongue, at the base of the tongue, and the area of the throat at the back of the mouth.<sup>7</sup> Adults over 40 years of age are the age group most at risk of developing oral cancer. Most oral cancer is associated with tobacco use, alcohol use, or infection by the human papilloma virus (HPV).<sup>7</sup> Oral cancer accounts for about 3% of all cancers diagnosed annually in the U.S., or 53,000 new cases each year.<sup>7</sup> Nationally in 2017, the rate for new cases of oral cancer was 12.0 per 100,000 people and oral cancer deaths were 3.0 per 100,000.<sup>8</sup> Florida's new case rate was slightly higher at 13.0 per 100,000 with the rate for men (20.6 per 100,000) and White adults (13.4 per 100,000) being the highest (Figure 8). Male adults (4.2 per 100,000) also had the highest rate of oral cancer deaths in 2017 (Figure 9).





Data Source: CDC and NCI United State Cancer Institute, 2017 \*Rate per 100,000 people

### Conclusion

This data brief on the oral health status of Florida adults examines the prevalence of oral conditions such as tooth loss, oral cancer, access to dental care, and dental insurance coverage. Florida adults who were either non-Hispanic Black, low-income, or had less than a high school education had the lowest prevalence of dental visits and the highest prevalence of tooth removal in 2018. Men and White adults had the highest rate of new oral cancer cases and deaths in 2017. This brief also reveals that adults who suffered from certain chronic conditions such as diabetes, lung disease, and stroke had a higher prevalence of tooth removal compared to Florida's statewide prevalence. Identifying high risk groups with poor oral health and addressing the inequalities of dental care and oral diseases helps to focus the need for improved measures to assist each Florida adult obtain the care required to improve their oral and overall health.

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