



RESEARCH BRIEF

# Oral Hygiene Home Care Practices in America

#### SUGGESTED CITATION:

#### **Authors**

#### Kelly Schroeder, RDH, MS

Health Science Specialist Analytics and Evaluation, CareQuest Institute for Oral Health

#### Lisa J. Heaton, PhD

Science Writer

Analytics and Evaluation, CareQuest Institute for Oral Health

#### Morgan Santoro, MPH

Research Analyst

Analytics and Evaluation, CareQuest Institute for Oral Health

#### **Paige Martin**

Science Writer

Analytics and Evaluation, CareQuest Institute for Oral Health

#### Eric P. Tranby, PhD

Director of Analytics and Data Insights CareQuest Institute for Oral Health

#### Acknowledgments

#### Stephanie Clester, RDH, MS

Clinical Content and Support Specialist Health Improvement, CareQuest Institute for Oral Health

#### Wai-Sum Leung, RDH, MS

**Project Coordinator** 

Health Improvement, CareQuest Institute for Oral Health

#### **Brooke Crouch, RDH**

Professional Education Specialist Elevate Oral Care



# Oral Hygiene Home Care Practices in America

Oral hygiene practices and other lifestyle behaviors, such as food and beverage habits and tobacco use, are important to consider when identifying oral health risks for individuals.

Demographic differences, along with insurance type, are additional variables that must be considered. Identifying these risks can help provide individualized oral health education based on person-centered care. Person-centered dental care ensures that the patient's needs, values, beliefs, and oral health literacy are incorporated into proposed dental interventions. The goals of providing person-centered care are healthier patient behaviors and better oral health outcomes.

The goals of providing person-centered care are healthier patient behaviors and better oral health outcomes.

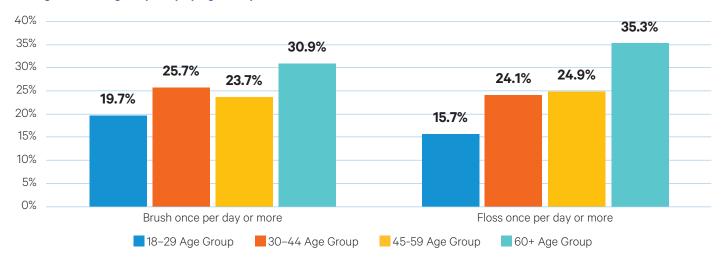
## Oral Hygiene Habits in America

The <u>Centers for Disease Control (CDC)</u> and <u>American Dental Association (ADA)</u> recommend brushing teeth twice per day with a fluoridated toothpaste and flossing once per day to prevent dental caries and periodontal disease. However, there is little available data regarding Americans' actual oral hygiene home care habits and lifestyle factors that contribute to oral health or oral disease.

To remedy this gap, CareQuest Institute for Oral Health® conducted a nationally representative survey of adult oral health consumers to determine oral hygiene habits, lifestyle choices, and socioeconomic factors that may contribute to

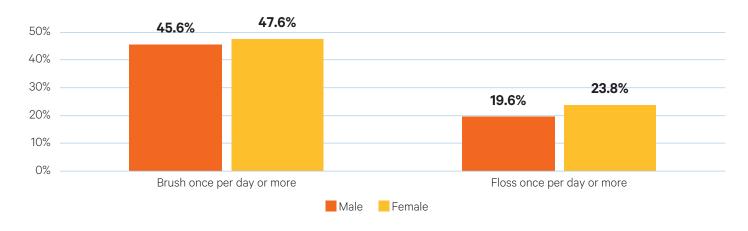
oral health. The results of the survey showed that most adults are brushing once per day or more (94.0%) and flossing half as often (43.7%). However, brushing and flossing proportions are not distributed evenly among age groups. Adults in the older age ranges of 30–44 (25.7%), 45–59 (23.7%) and 60+ (30.9%) years more often report brushing at least once per day compared with individuals between the ages of 18–29 (19.7%). Differences in flossing frequencies are also found among age groups, with a greater proportion of adults ages 30–44 (24.1%); 45–59 (24.9%); and 60+ (35.3%) reporting flossing once per day or more compared to the 18–29 age group (15.7%).

#### **Brushing and Flossing Frequency by Age Groups**



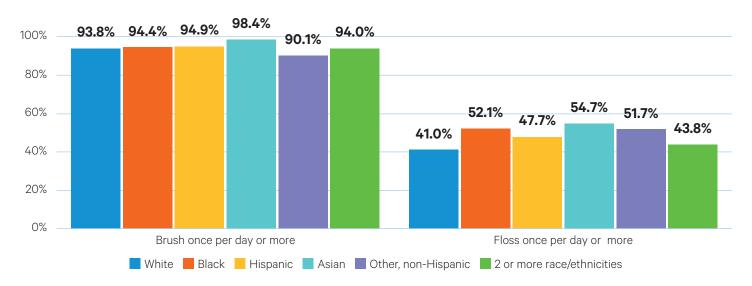
Slightly more females (47.6%) brush at least once per day compared to males (45.6%). Similarly, females floss daily at higher rates (23.8%) than males (19.6%).

#### **Brushing and Flossing Frequency by Gender**



Minimal differences are found in brushing frequency or flossing frequency by race/ethnicity.

#### **Brushing and Flossing Frequency by Race/Ethnicity**



# Additional Influences on Oral Hygiene Home Care

Although plaque removal by brushing and flossing is an important factor in maintaining optimum oral health, other factors also play significant roles in maintaining oral health. The types of foods and drinks consumed, and the <u>frequency of consumption</u>, are critical when considering how often an individual needs to brush and floss. Another important factor to consider when evaluating oral health risk in patients is the <u>frequency of tobacco use</u>. Tobacco use contributes to many types of oral disease, including <u>periodontal disease and oral cancer</u>; however, the exact causality is difficult to determine.

# of adults replied "No" to the question, "Are you aware of the impact the foods you eat can have on your teeth?" compared with 44.5% of adults who responded "Yes, but I eat them anyway."

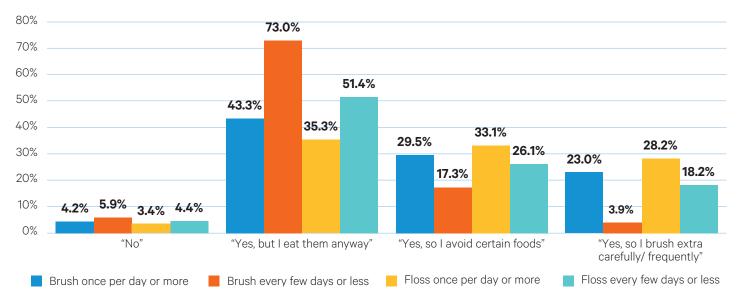
#### **Food Awareness and Behaviors**

Brushing and flossing frequency may be linked to food behaviors. Very few respondents (4.3%) replied "No" to the question, "Are you aware of the impact the foods you eat can have on your teeth?" compared with adults who responded, "Yes, but I eat them anyway" (44.5%). Nearly twice as many people who brush every few days or less said, "Yes, but I eat them anyway" (73%), compared with those who brush at least once per day (43.3%). Those who brush once per day or more also seem to engage in oral health protective factors, indicated by responses of "Yes, so I avoid certain foods" (29.5%) and "Yes, so I brush extra carefully/frequently" (23.0%), compared with

those who brush every few days or less (17.3%, "Yes, so I avoid certain foods"; 3.9%, "Yes, so I brush extra carefully/frequently"). Those who floss once per day or more responded less often, "Yes, but I eat them anyway" (35.3%) compared with those who floss every few days or less (51.4%). Adults with more consistent flossing behaviors of once per day or more responded "Yes, so I floss more carefully/frequently" more often compared with those who floss every few days or less (18.2%). These results show a positive correlation between optimum brushing and flossing habits and protective factors such as avoiding certain foods and/or brushing extra carefully or frequently.

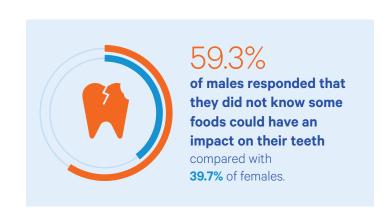
#### **Food Awareness and Behaviors**

"Are you aware of the impact the foods you eat can have on your teeth?"



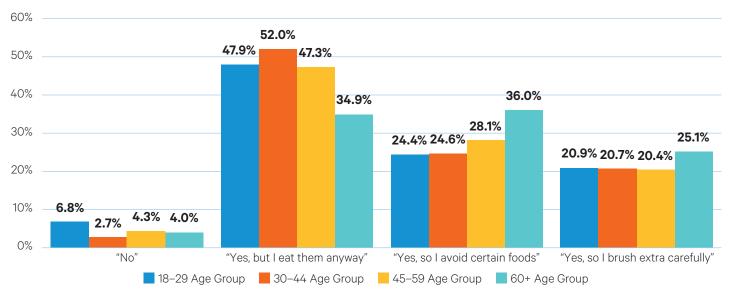
Age also plays a role in food awareness and behaviors. When study participants were asked "Are you aware of the impact the foods you eat can have on your teeth?", a higher proportion of the 18–29 age group responded "No" (6.8%), compared with the 30–44 (2.7%), 45–59 (4.3%), and 60+ (4.0%) age groups. However, the differences between age groups are not large, which suggests that providers should not make assumptions about individuals based on their age.

More than half of males (59.3%) responded that they did not know some foods could have an impact on their teeth, compared with about two-fifths of females (39.7%). Males were also less likely to respond, "Yes, so I brush extra carefully/ frequently" (39.7%), compared with more than half of females (59.8%).



#### Food Awareness and Behaviors by Age Groups

"Are you aware of the impact the foods you eat can have on your teeth?"

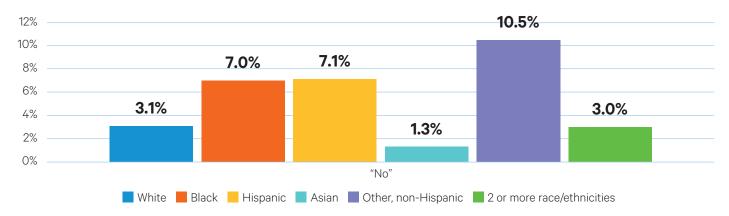


Race/ethnicity appeared to be related to food awareness and behaviors. Those who chose the "other" race/ethnicity group (10.5%) were most likely to say they did not know the impact of foods on their teeth, compared with those who identified as

Asian (1.3%), who were the least likely. Those who identified as Black (7.0%) or Hispanic (7.1%) reported being twice as likely to not be aware that certain foods can affect teeth, compared with adults identifying as white (3.1%).

#### Food Awareness and Behaviors by Race/Ethnicity

"Are you aware of the impact the foods you eat can have on your teeth?"



Proper <u>nutrition</u> and optimum oral health go together.

For example, poor nutrition can lead to oral disease, which makes chewing healthy food more difficult. Identifying individuals who need <u>additional education</u> on nutritional choices allows an opportunity to provide <u>person-centered</u> care which can lead to better oral health outcomes and help reduce oral health inequities.

Identifying individuals who need additional education on nutritional choices allows an opportunity to provide person-centered care which can lead to better oral health outcomes and help reduce oral health inequities.

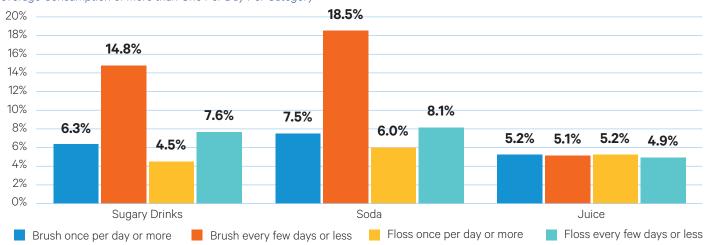
#### **Beverage Consumption Awareness and Behaviors**

Along with food consumption awareness and behaviors, beverage type and frequency of consumption can also affect individual risk of oral disease. Regular consumption of soda, juice, and other sugary beverages has been shown to increase the <u>risk of dental caries</u>. Sugary drinks in this report are classified as sweetened tea, sports drinks, energy drinks, sweetened coffees, and iced coffee drinks. Respondents who reported consuming more than one of these beverages per day were most likely to consume soda (8.0%) and least

likely to consume juice (5.1%). Adults who reported brushing at least once per day or more also reported consuming sugary drinks (6.3%) or soda (7.5%) less often as those who brush every few days of less (sugary drinks (14.8%); soda (18.5%)). No differences were found with juice consumption and brushing frequency. Those who floss at least once per day reported consuming sugary drinks (4.5%), soda (6.0%), and juice (5.2%) less than those who floss less than every day (sugary drinks (7.6%); soda (8.1%); and juice (4.9%)).

#### **Adult Home Care Habits and Beverage Consumption**

Beverage Consumption of More than One Per Day Per Category



Adults in the 18–29 age group (18.3%) reported drinking more than one sugary drink per day more often than the 30–44 age group (15.0%), 45–59 age group (14.3%), and 60+ age group (12.7%). Adults in the 60+ age group (59.7%) reported never having sugary drinks three times more than the 18–29 age group (23.4%). Half as many adults in the 60+ age group (4.5%) reported having more than one soda per day compared with the 18–29 (9.8%), 30–44 (10.4%),

and 45–59 (8.8%) age groups. Almost twice as many in the 18–29 age group reported drinking juice more than once per day (7.7%) compared with the 60+ age group (3.9%). From these results, it appears that the older age groups consume sweetened beverages of any kind less often than the younger age groups. Oral health professionals need to consider asking patients about the frequency of sweetened beverage consumption in addition to soda or juice.

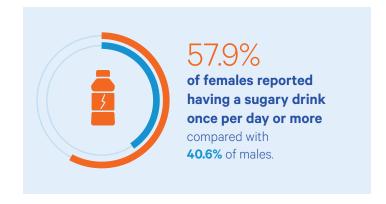
#### Adult Home Care Habits and Beverage Consumption by Age Groups

Beverage Consumption of More than One Per Day Per Category



Males and females had a similar distribution of sugary drink consumption patterns, with more than half of females (57.9%) and fewer than half of males (40.6%) reporting having a sugary drink once per day or more. A similar distribution was also found for the consumption of one soda per day among females (8.3%) and males (7.8%). Finally, similar proportions of males (5.9%) and females (4.3%) reported consuming juice more than once per day. As with the age category, gender is an important consideration when identifying caries risk among patients.

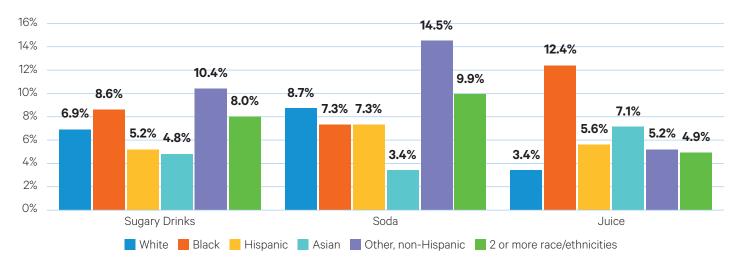
Race/ethnicity may play a role in the consumption of sweetened beverages across all categories. Compared with other adults in the survey, individuals who identified their race category as "other" were most likely to report drinking more than one sugary drink per day (10.4%) and more than one soda per day (14.5%), while adults identifying as Black were most likely to report drinking more than one juice per day (12.4%). More research needs to be done surrounding individuals who choose the "other" race category to learn if there is a better way to identify these individuals and their unique oral health needs. Lessons can also be learned about knowledge, awareness, and beliefs regarding sweetened beverage consumption by individuals identifying as Hispanic and Asian, who reported such consumption less frequently than individuals in other racial groups.



As with the age category, gender is an important consideration when identifying caries risk among patients.

#### Adult Home Care Habits and Beverage Consumption by Race/Ethnicity

Beverage Consumption of More than One Per Day Per Category



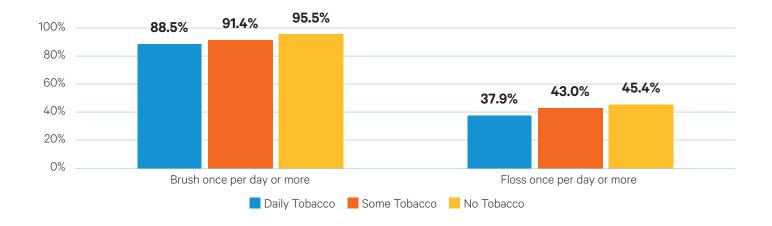
#### **Tobacco Use**

Findings from this report suggest tobacco use combined with poor oral hygiene habits and unhealthy food and beverage behaviors may increase the risk of oral disease. Those who used tobacco every day were less likely to report brushing once per day or more (88.5%), compared with those who use tobacco some days (91.4%), or never use tobacco (95.5%). However, those who use tobacco daily reported flossing at least once per day (37.9%) at similar proportions to those who used tobacco some days (43.0%), and never use tobacco (45.4%).

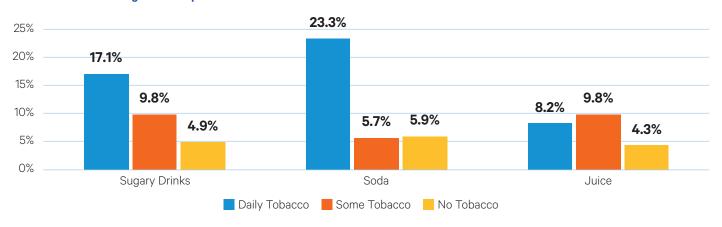
The survey revealed a difference in food awareness and behaviors between those who use tobacco every day and those who do not use tobacco. While awareness of the impact of food on their teeth was similar across levels of tobacco use, a greater proportion of those who use tobacco every day replied, "Yes, but I eat them anyway" (61%), compared with those who do not use tobacco (41.6%). Those who do not use tobacco were more likely to reply, "Yes, so I avoid certain foods" (30.7%) or "Yes, so I brush extra carefully/frequently" (23.7%), compared with those who use tobacco every day (18.1%, 15.1%). Sweetened beverage consumption is also more prevalent among those who reported daily tobacco use. Those who use tobacco daily also consume more than one sugary drink per day, almost three times more (17.%) than those who do not use tobacco at all (4.9%). Those who use tobacco daily were also more likely to report consuming more than one soda per day (23.3%) compared with those who do not use tobacco (5.9%). Finally, those who use tobacco daily reported consuming more than one juice per day (8.2%) twice as often as those who reported no tobacco use (4.3%).

Findings from this report suggest tobacco use combined with poor oral hygiene habits and unhealthy food and beverage behaviors may increase the risk of oral disease.

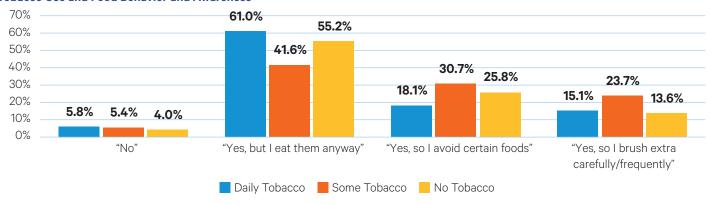
#### **Tobacco Use and Oral Hygiene Habits**



#### **Tobacco Use and Beverage Consumption**



#### **Tobacco Use and Food Behavior and Awareness**



Not only does tobacco use have direct effects on <u>oral health</u>, but there also appears to be a relationship between tobacco use and oral hygiene home care habits. In other words, those who use tobacco products tend to engage in less healthy food and beverage behaviors. As oral health professionals counsel patients on tobacco cessation, having conversations about food and beverage choices along with home care habits is an important part of person-centered care.

As oral health professionals counsel patients on tobacco cessation, having conversations about food and beverage choices along with home care habits is an important part of person-centered care.

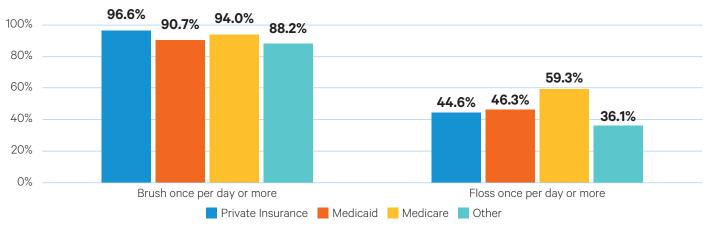


# Dental Insurance Type

Little difference was seen among adults' brushing and flossing habits by insurance type; however, important differences were seen in food behaviors and beverage consumption by insurance type. When respondents were asked, "Are you aware of the impact the foods you eat can have on your teeth?", those with Medicaid (7.1%) or Medicare (5.8%) dental benefits responded "No" twice as often as those with private (2.6%) or "other" types (3.0%) of dental insurance. Those with Medicaid dental insurance (50.5%) replied more often "Yes, but I eat them anyway" compared with those who have Medicare (35.2%), private (45.1%) or "other" (41.5%) insurance types.

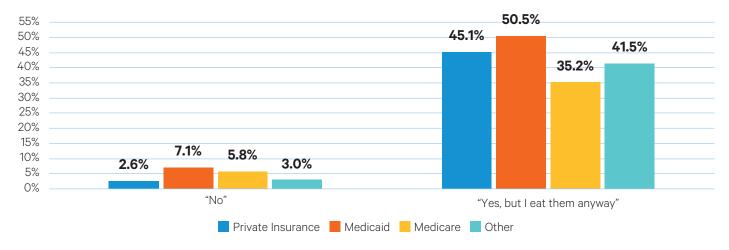
In terms of consuming sugary drinks, soda, and juice, those with Medicaid dental benefits (14.6%) were three times more likely to report consuming more than one sugary drink per day compared to those with Medicare (4.6%), private (4.5%), or other (7.7%) insurance types. Medicaid beneficiaries also report higher daily consumption of soda (18.2%) and juice (12.5%) compared with Medicare (4.5%, 3.7%), private (6.0%, 3.4%), or "other" (8.0%, 6.0%) insurance types.

#### **Dental Insurance Type and Home Care Habits**

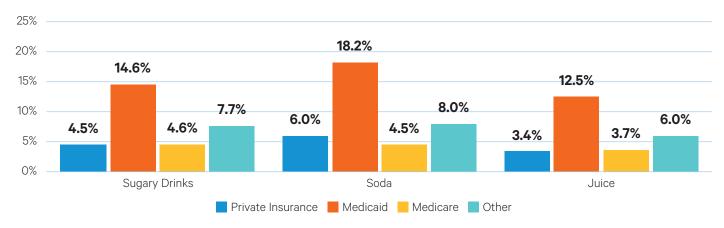


#### **Dental Insurance Type and Food Impacts**

"Are you aware of the impact the foods you eat can have on your teeth?



#### **Dental Insurance Type and Beverage Consumption**



Data from these findings suggest that those with <a href="Medicaid">Medicaid</a> may have lower oral health literacy surrounding food and beverage awareness and behaviors compared with those who have other insurance types. A challenge often faced by Medicaid dental recipients is <a href="access to a dental">access to a dental</a> provider. Having <a href="Messaccess">Jess access</a> to dental treatment also means less access to oral health education and literacy, which may perpetuate oral disease.

Data from these findings suggest that those with Medicaid may have lower oral health literacy surrounding food and beverage awareness and behaviors compared with those who have other insurance types.



### Conclusions

Oral health education for patients cannot be one-size-fits-all. Instead, it should be customized for individual knowledge, beliefs, and personal experiences surrounding oral hygiene home care routines and lifestyle factors. Variables such as brushing and flossing frequency are a small part of achieving optimum oral health. Sociodemographic factors and dental insurance type may also play a role in oral health behaviors outside of oral hygiene habits due to frequency and type of exposure to oral health information. Along with risk factors, protective factors can also be seen in this report. Brushing and flossing frequency appeared to have a correlation with healthy habits such as brushing more often after consuming certain foods, consuming sweetened beverages infrequently, and abstaining from tobacco products. This is important for oral health professionals to consider when educating patients about maintaining or improving oral health. Home care habits such as brushing and flossing are important, but they are not the only consideration when working toward optimum oral health.

Oral health education for patients cannot be one-size-fits-all. Instead, it should be customized for individual knowledge, beliefs, and personal experiences surrounding oral hygiene home care routines and lifestyle factors.

#### Methods

This report utilizes data obtained from the State of Oral Health Equity in America (SOHEA) 2022 survey, a nationally representative survey of consumer and patient attitudes, experiences, and behaviors on oral health. The study was designed by the CareQuest Institute for Oral Health. Results were collected in January and February 2022 from adults 18 and older by NORC at the University of Chicago on the AmeriSpeak panel. AmeriSpeak is a probability-based panel designed to be representative of the United States (US) household population. Randomly selected US households were sampled using area probability and address-based sampling, with a known, non-zero probability of selection from NORC National Sample Frame. Sampled households were contacted by US Mail, telephone, and field interviewers. A sampling unit of 17,603 was used, with a final sample size of 5,682 and a final weighted cumulative response rate of 4.0%. All data presented account for appropriate sample weights. The margin of effort for the survey is 1.75%. Weighted descriptive analyses were conducted on oral hygiene habits by age, gender, race and ethnicity, dental insurance, and smoking status. Chi squared statistics were used to test independence between oral hygiene habit variables and demographic variables.

#### CareQuest Institute for Oral Health

CareQuest Institute for Oral Health® is a national nonprofit championing a more equitable future where every person can reach their full potential through excellent health. We do this through our work in grantmaking, research, health improvement programs, policy and advocacy, and education as well as our leadership in dental benefits and innovation advancements. We collaborate with thought leaders, health care providers, patients, and local, state, and federal stakeholders to accelerate oral health care transformation and create a system designed for everyone. To learn more, visit carequest.org.

This report and others are available at carequest.org.