

# ORAL HEALTH SURVEILLANCE REPORT



Dental Caries, Tooth Retention,  
and Edentulism, United States  
2017–March 2020



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# Introduction

This surveillance report provides national estimates for selected oral health measures from the National Health and Nutrition Examination Survey (NHANES), using the NHANES 2017–March 2020 prepandemic data files.<sup>1</sup>

This report updates CDC’s 2019 Oral Health Surveillance Report, which provided data for 2011–2016 and highlighted disparities in oral health by certain sociodemographic characteristics.<sup>2</sup>

For this report, we provide estimates for the prevalence and severity of dental caries in primary and permanent teeth in specific age groups (for those 2 years or older) and for tooth retention and edentulism (total tooth loss) in adults 20 years or older. Estimates are stratified by the following self-reported sociodemographic characteristics: age, sex, race and ethnicity, family poverty status, education level, and smoking status.

## Methods

### Data Sources

NHANES is a cross-sectional survey designed to monitor the health and nutritional status of the resident, civilian, and noninstitutionalized U.S. population. CDC’s National Center for Health Statistics (NCHS) releases data in 2-year cycles for public use.

During the 2019–2020 cycle, NCHS interrupted data collection in March 2020 due to the COVID-19 pandemic. As a result, the partially completed 2019–2020 cycle was not nationally representative. NCHS combined these data with the 2017–2018 data and adjusted sampling parameters, including primary sampling units and weights, to create the nationally representative 2017–March 2020 prepandemic data files. More detailed information about the methods used to construct the combined data and analytic guidance on how to use the files are presented in an NCHS report.<sup>1</sup>

### Data Definitions

As in previous surveillance reports using NHANES,<sup>2–4</sup> this report presents oral health data collected by trained dentists who completed oral health assessments in mobile examination centers (MEC) using a standard protocol and detection criteria. All dental measures of permanent teeth are based on 28 teeth, excluding third molars. All prevalence estimates except for edentulism are for participants with one or more teeth (dentate). Edentulism is defined as having lost all permanent teeth.

As in previous surveillance reports, caries lesions were detected at the cavitated level. This information was used to calculate the decayed and filled teeth index in primary teeth (dft) and the decayed, missing, and filled index in permanent teeth (DMFT).<sup>3</sup>

We defined the prevalence of untreated dental caries, or tooth decay, as the proportion of dentate survey participants who had one or more decayed teeth.<sup>3</sup> Consistent with the 2019 Oral Health Surveillance Report, the prevalence of untreated tooth decay is reported in primary teeth for children aged 2–8 years and in permanent teeth for those aged 6 years or older. For children aged 6–9 years, we also report the prevalence of untreated tooth decay in primary and permanent teeth.

The severity of dental caries among children, adolescents, and adults younger than 65 years is reported for those with dental caries. Measures for primary teeth are reported as the mean number of decayed

and filled teeth among those having at least one decayed or filled tooth. Measures for permanent teeth are reported as the mean number of decayed, missing, and filled teeth among those having at least one decayed, missing, or filled tooth. We also report severity estimates with and without missing teeth among adults because not all missing teeth may have been a direct consequence of dental caries. Among adults, missing teeth is labeled as “missing due to disease.” Dental caries severity is reported for all dentate adults aged 65 years or older.

## Study Population

As in previous surveillance reports,<sup>2-4</sup> we used the following age groups for our analysis: children aged 2–5 years and 6–8 years for primary teeth; children and adolescents aged 6–11 years and 12–19 years for permanent teeth; adults aged 20–34, 35–49, and 50–64 years; and older adults aged 65–74 years and 75 years or older.

All estimates were age-adjusted to the U.S. 2000 standard population to control for differences in age distribution.<sup>5</sup> For adjustment, we used single years of age for children and adolescents and 5-year age groups, with the maximum age group set to 80 years or older, for adults.

We also used the same sociodemographic characteristics and categories as in previous surveillance reports.<sup>2-4</sup> We analyzed the data according to race and ethnicity, family poverty status based on the federal poverty level (FPL), educational attainment, and cigarette smoking status.

Information on self-reported race or ethnicity was classified into three categories: non-Hispanic White, non-Hispanic Black, and Mexican American. We report estimates for Mexican American survey respondents only, instead of for all Hispanics, because this group has data that are comparable with previous reports.

Poverty status was classified as high if family income was below 100% of the FPL, middle if 100% or higher but below 200% of the FPL, or low if 200% or higher of the FPL. Findings are also presented for high and middle poverty status combined.

Educational attainment was classified as less than high school, high school graduate or equivalent, and more than high school.

Cigarette smoking status was classified into three categories: current smoker, former smoker, and never smoked. Current smokers were defined as respondents who reported having smoked at least 100 cigarettes during their lifetime and currently smoking cigarettes every day or some days. Former smokers were defined as respondents who reported having smoked at least 100 cigarettes during their lifetime but not currently smoking. Never smokers were defined as respondents who reported having smoked fewer than 100 cigarettes during their lifetime.

When comparing outcomes among different categories within the same sociodemographic characteristic, we used the same reference categories as previous surveillance reports. The reference category for sex was male; for race or ethnicity, non-Hispanic White; for poverty status, 200% or higher of the FPL; for educational attainment, more than high school; and for smoking status, never smoked.

## Data Analysis

Within each characteristic, we conducted t-tests to evaluate statistical differences between each category and the reference group, as done in previous surveillance reports.<sup>2-4</sup> For example, a test for poverty status used 200% or higher of the FPL as the reference group. For race and ethnicity, non-Hispanic White survey participants were the reference group.

All statistical analyses were performed using SUDAAN software Version 11.0.3 (RTI International, Research Triangle Park, North Carolina) and SAS software Version 9.6 (SAS Institute Inc., Cary, North Carolina) to account for the complex survey design. We used sampling weights corresponding to MEC participants. We present age-adjusted estimates and standard errors overall and stratified by characteristics.

We used  $P < 0.05$  to report statistically significant differences. Following NCHS recommendations, estimates based on denominator sample size less than 30 or with higher than 30% relative standard errors were considered unreliable and not displayed in the tables.<sup>6</sup>

Our results are presented in 18 tables. Important results are presented in the Selected Findings section.

## Selected Findings

### Prevalence and Severity of Tooth Decay in Primary Teeth

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*More than 1 in 10 children aged 2–5 years had at least one untreated cavity in their baby teeth. By age 6–8 years, it was nearly 1 in 5 children.*

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- About 11% of children aged 2–5 years had one or more primary teeth with untreated decay (Table 1). Mexican American children had a higher prevalence of untreated tooth decay (18.5%) than non-Hispanic White children (8.1%). Children in the high poverty group (18.0%) had a higher prevalence of untreated tooth decay than children in the low poverty group (6.6%).
- Children aged 2–5 years with one or more decayed or filled primary teeth (dft) had, on average, 1.8 decayed teeth (dt) and 2.6 filled teeth (ft) (Table 2). The mean number of decayed primary teeth was 2.2 in the high poverty group and 1.6 in the low poverty group. Female (3.2) and Mexican American (3.9) children had the highest mean number of filled primary teeth.
- Nearly 18% of children aged 6–8 years had one or more primary teeth with untreated decay (Table 3). The prevalence in the high poverty (24.6%) and middle poverty (24.8%) groups was more than double the prevalence in the low poverty group (11.6%).
- Children aged 6–8 years with one or more decayed or filled primary teeth (dft) had, on average, 0.9 decayed teeth (dt) and 3.2 filled teeth (ft) (Table 4). The mean number of decayed primary teeth was one or less across all sociodemographic characteristics. Mexican American children had the highest mean number of filled teeth (4.2).

### Prevalence of Tooth Decay in Primary and Permanent Teeth

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*Half of all children aged 6–9 years have had cavities in their primary or permanent teeth.*

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- Nearly 17% of children aged 6–9 years had one or more primary or permanent teeth with untreated decay (Table 5). Children in the high poverty (26.3%) and middle poverty (23.4%) groups were more than twice as likely to have untreated decay than those in the low poverty group (10%).
- About 50% of children aged 6–9 had one or more decayed, filled, or missing primary or permanent teeth (Table 6). Mexican American children (70.3%) and those in the high poverty (59.9%) and middle poverty (61.4%) groups had a higher prevalence than non-Hispanic White children (43.4%) and children in the low poverty group (40.5%).

## Prevalence and Severity of Tooth Decay in Permanent Teeth

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*One in 10 adolescents aged 12–19 years had at least one untreated cavity in their permanent teeth. One in 5 adults aged 20–64 years had at least one untreated cavity. Levels of untreated cavities are higher for some groups because of factors such as race and ethnicity, income level, and smoking status.*

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- Nearly 3% of children aged 6–11 years had one or more permanent teeth with untreated decay (Table 7). Those with one or more decayed, missing, or filled permanent teeth (DMFT >0) had, on average, 0.3 decayed teeth (DT) and 1.6 filled teeth (FT) (Table 8). The mean number of filled teeth ranged from 1.4 to 1.9 teeth across all sociodemographic characteristics.
- About 10% of adolescents aged 12–19 years had one or more permanent teeth with untreated decay (Table 9). The prevalence was higher among older adolescents (16–19 years, 12.1%) than younger adolescents (12–15 years, 8.6%). The prevalence was higher in the high poverty and middle poverty groups combined (13.2%) than in the low poverty group (8.2%).
- Adolescents aged 12–19 years with one or more decayed, missing, or filled permanent teeth (DMFT >0) had, on average, 0.4 decayed teeth (DT) and 3.7 filled teeth (FT) (Table 10). The mean number of decayed teeth remained at or below 0.6 across all sociodemographic characteristics. The mean number of filled teeth was higher among older adolescents (aged 16–19 years, 4.4) and Mexican American adolescents (4.3) than among their respective reference groups.
- Nearly 21% of adults aged 20–64 years had one or more permanent teeth with untreated decay (Table 11). The prevalence was lower in the 50–64 age group (17.3%) compared to the two younger age groups (21–34 years, 21.8%; 35–49 years, 21.4%). It was higher among those who were male (22.8%), were non-Hispanic Black (30.3%), were in the high poverty (39.6%) or middle poverty (30.9%) group, had a high school education (30.2%) or less (39.1%), and were current smokers (41.4%) than among their respective reference groups.
- Adults aged 20–64 years with one or more decayed, missing, or filled teeth (DMFT >0) had, on average, 0.7 decayed teeth (DT), 6.0 filled teeth (FT), and 2.0 missing teeth due to disease (MT) (Table 12).
  - The highest mean number of decayed teeth was among current smokers (1.5), followed by those in the high poverty group (1.4) and those with less than a high school education (1.3).
  - The mean number of filled teeth increased with age, from 4.8 at 20–34 years to 7.5 at 50–64 years. Females (6.4), non-Hispanic White adults (6.4), those in the low poverty group (6.4), those with more than a high school education (6.4), and never smokers (6.4) had the highest mean number of filled teeth.
  - The mean number of missing teeth increased with age, from 0.7 teeth at 20–34 years to 3.8 teeth at 50–64 years. Non-Hispanic Black adults (2.9), those in the high poverty group (3.3), those with less than a high school education (3.6), and current smokers (3.9) had higher mean numbers of missing teeth than their respective reference groups.

- Nearly 13% of adults aged 65 years or older had one or more permanent teeth with untreated decay (Table 13). Prevalence was 2 to 3 times higher among non-Hispanic Black adults (28.4%), Mexican American adults (24.0%), those in the high poverty (28.7%) or middle poverty (19.4%) group, those with less than a high school education (20.0%), and current smokers (27.6%) than among their respective reference groups.
- Adults aged 65 years or older had, on average, 0.2 decayed teeth (DT), 9.3 filled teeth (FT), and 6.4 missing teeth due to disease (MT) (Table 14).
  - The mean number of teeth with untreated decay was less than one tooth across all sociodemographic characteristics.
  - The highest mean number of filled teeth was in older adults who were non-Hispanic White (10.4), were in the low poverty group (10.4), had more than a high school education (10.4), were 75 years or older (9.7), and were never smokers (9.7).
  - The mean number of missing teeth increased with age, from 5.6 at 60–74 years to 7.4 at 75 years or older. The mean number of missing teeth was highest among older adults in the high poverty group (11.2), followed by those who were non-Hispanic Black (10.6), had less than a high school education (10.6), and were current smokers (10.4).

## Tooth Retention and Edentulism

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*More than 1 in 10 adults aged 65–74 years had lost all their teeth. Nearly 1 in 5 adults aged 75 years or older had lost all their teeth.*

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- The mean number of permanent teeth decreased with age, from 27 teeth at 20–34 years to 23.3 at 50–64 years, 21.7 at 65–74 years, and 19.8 at 75 years or older (Tables 15 and 17). Among adults 65 years or older (Table 17), the mean number of teeth was lower among those who were non-Hispanic Black (16.2), were in the high and middle poverty groups combined (17.6), had less than a high school education (16.8), and were current smokers (16.3).
- The prevalence of edentulism among adults increased from 1.2% at 35–49 years to 5.9% at 50–64 years, 11.4% at 65–74 years, and 19.7% at 75 years or older (Tables 16 and 18). Among adults 65 years or older (Table 18), edentulism was more prevalent among those who were non-Hispanic Black (21.8%), were in the high poverty group (29.8%), had less than a high school education (33.4%), and were current smokers (29.4%).

## Editorial Comment

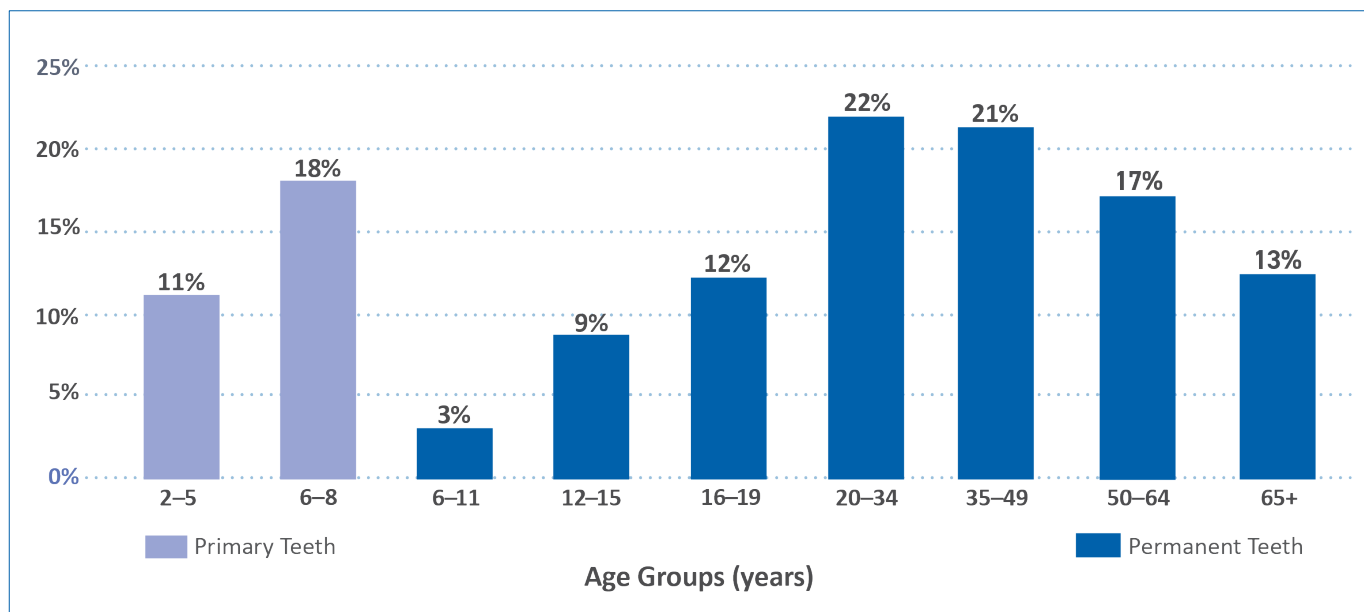
During 2017–March 2020, the prevalence of untreated tooth decay in primary teeth was higher among children aged 6–8 years (18%) than among those aged 2–5 years (11%) (Figure). The prevalence of untreated decay in permanent teeth increased from 3% among children aged 6–11 years to about 22% among adults aged 20–34 years, then decreased to 13% among adults 65 years or older.

This report found that disparities in oral health status remain for many groups. Members of racial and ethnic minority groups, people from families with low incomes, those with less education, and smokers have the highest levels of untreated tooth decay and tooth loss or the lowest levels of treated tooth decay and tooth retention. These patterns have remained the same since they were first reported in the 2000 *Oral Health in America: A Report of the Surgeon General*.<sup>7</sup>



In this report, we did not compare estimates from the NHANES 2017–March 2020 prepandemic data files to previous surveillance reports. NCHS recommends that trend comparisons for subgroups—including comparisons based on age, sex, and race and ethnicity—between the 2017–March 2020 prepandemic data files and previous NHANES cycles be interpreted with caution, especially when denoting unexpected changes in the historical trend.<sup>1,8</sup>

**Figure. Weighted Prevalence of Untreated Tooth Decay in Primary or Permanent Teeth, by Age, United States, National Health and Nutrition Examination Survey, 2017–March 2020**



Note: All estimates are adjusted by age to the U.S. 2000 standard population.

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**Table 1. Prevalence of untreated tooth decay in primary teeth<sup>a</sup> among children aged 2–5 years, by selected characteristics, United States, National Health and Nutrition Examination Survey, 2017–March 2020**

Characteristic	2017–March 2020	
	% <sup>b</sup>	SE
<b>Total</b>	11.1	1.49
<b>Sex</b>		
Male (reference)	12.0	2.18
Female	10.1	1.42
<b>Race and ethnicity</b>		
White, non-Hispanic (reference)	8.1	2.20
Black, non-Hispanic	8.7	1.71
Mexican American	18.5*	2.71
<b>Poverty status<sup>c</sup></b>		
High poverty	18.0*	2.58
Middle poverty	NR	NR
Low poverty (reference)	6.6	1.31
<b>Poverty status<sup>c</sup></b>		
High and middle poverty combined	15.2*	2.47
Low poverty (reference)	6.6	1.31

Note: All estimates are adjusted by age (single years) to the U.S. 2000 standard population. Estimates are based on all U.S. race and ethnicity groups, except the estimates for specific race and ethnicity categories. NR = Not reported because the sample size is <30 or the standard error is >30% of the point estimate value. SE = standard error. Reference groups were used to test for statistical differences within sociodemographic characteristics.

\*  $P < 0.05$  based on t-test for differences against the reference group.

<sup>a</sup> Defined as having one or more untreated decayed primary teeth among children with at least one primary tooth.

<sup>b</sup> Weighted prevalence estimates.

<sup>c</sup> Defined as the percentage of family income relative to the federal poverty level (FPL). High poverty = <100% FPL; middle poverty = 100%–199% FPL; high or middle poverty combined = <200% FPL; and low poverty = ≥200% FPL.

**Table 2. Mean number of decayed (dt), filled (ft), and decayed and filled (dft) primary teeth among children aged 2–5 years with at least one decayed or filled tooth,<sup>a</sup> by selected characteristics, United States, National Health and Nutrition Examination Survey, 2017–March 2020**

Characteristic	2017–March 2020					
	dft		dt		ft	
	Mean <sup>b</sup>	SE	Mean	SE	Mean	SE
<b>Total</b>	4.4	0.18	1.8	0.28	2.6	0.40
<b>Sex</b>						
Male (reference)	4.1	0.24	2.0	0.35	2.1	0.35
Female	4.8	0.32	1.6	0.25	3.2*	0.52
<b>Race and ethnicity</b>						
White, non-Hispanic (reference)	3.6	0.36	2.1	0.35	1.5	0.22
Black, non-Hispanic	3.4	0.25	1.7	0.26	1.7	0.28
Mexican American	5.9*	0.39	2.0	0.54	3.9*	0.85
<b>Poverty status<sup>c</sup></b>						
High poverty	4.8*	0.27	2.2	0.44	2.6	0.49
Middle poverty	4.6	0.67	NR	NR	2.9	0.82
Low poverty (reference)	3.7	0.33	1.6	0.23	2.1	0.42
<b>Poverty status<sup>c</sup></b>						
High and middle poverty combined	4.7*	0.25	2.1	0.40	2.7	0.49
Low poverty (reference)	3.7	0.33	1.6	0.23	2.1	0.42

Note: All estimates are adjusted by age (single years) to the U.S. 2000 standard population. Estimates are based on all U.S. race and ethnicity groups, except the estimates for specific race and ethnicity categories. NR = Not reported because the sample size is <30 or the standard error is >30% of the point estimate value. SE = standard error. Reference groups were used to test for statistical differences within sociodemographic characteristics.

\*  $P < 0.05$  based on t-test for differences against the reference group.

<sup>a</sup> Includes children with at least one primary tooth present and at least one decayed or filled primary tooth (dft  $\geq 1$ ).

<sup>b</sup> Weighted mean estimates.

<sup>c</sup> Defined as the percentage of family income relative to the federal poverty level (FPL). High poverty = <100% FPL; middle poverty = 100%–199% FPL; high or middle poverty combined = <200% FPL; and low poverty =  $\geq 200\%$  FPL.

**Table 3. Prevalence of untreated tooth decay in primary teeth<sup>a</sup> among children aged 6–8 years, by selected characteristics, United States, National Health and Nutrition Examination Survey, 2017–March 2020**

Characteristic	2017–March 2020	
	% <sup>b</sup>	SE
<b>Total</b>	17.7	2.20
<b>Sex</b>		
Male (reference)	17.0	2.30
Female	18.4	2.90
<b>Race and ethnicity</b>		
White, non-Hispanic (reference)	15.4	2.97
Black, non-Hispanic	20.9	3.11
Mexican American	19.3	5.44
<b>Poverty status<sup>c</sup></b>		
High poverty	24.6*	3.77
Middle poverty	24.8*	3.56
Low poverty (reference)	11.6	3.21
<b>Poverty status<sup>c</sup></b>		
High and middle poverty combined	24.5*	2.18
Low poverty (reference)	11.6	3.21

Note: All estimates are adjusted by age (single years) to the U.S. 2000 standard population. Estimates are based on all U.S. race and ethnicity groups, except the estimates for specific race and ethnicity categories. SE = standard error. Reference groups were used to test for statistical differences within sociodemographic characteristics.

\*  $P < 0.05$  based on t-test for differences against the reference group.

<sup>a</sup> Defined as having one or more untreated decayed primary teeth among children with at least one primary tooth.

<sup>b</sup> Weighted prevalence estimates.

<sup>c</sup> Defined as the percentage of family income relative to the federal poverty level (FPL). High poverty = <100% FPL; middle poverty = 100%–199% FPL; high or middle poverty combined = <200% FPL; and low poverty = ≥200% FPL.

**Table 4. Mean number of decayed (dt), filled (ft), and decayed and filled (dft) primary teeth among children aged 6–8 years with at least one decayed or filled primary tooth,<sup>a</sup> by selected characteristics, United States, National Health and Nutrition Examination Survey, 2017–March 2020**

Characteristic	2017–March 2020					
	dft		dt		ft	
	Mean <sup>b</sup>	SE	Mean	SE	Mean	SE
<b>Total</b>	4.1	0.18	0.9	0.14	3.2	0.22
<b>Sex</b>						
Male (reference)	4.2	0.22	0.9	0.14	3.3	0.26
Female	3.9	0.20	0.9	0.18	3.1	0.23
<b>Race and ethnicity</b>						
White, non-Hispanic (reference)	3.5	0.22	0.7	0.13	2.7	0.21
Black, non-Hispanic	3.6	0.22	0.9	0.17	2.7	0.23
Mexican American	4.9*	0.38	0.7	0.20	4.2*	0.46
<b>Poverty status<sup>c</sup></b>						
High poverty	4.0	0.30	1.0	0.16	3.0	0.35
Middle poverty	4.1	0.35	0.9	0.17	3.2	0.34
Low poverty (reference)	4.0	0.23	NR	NR	3.1	0.26
<b>Poverty status<sup>c</sup></b>						
High and middle poverty combined	4.1	0.27	0.9	0.11	3.1	0.29
Low poverty (reference)	4.0	0.23	NR	NR	3.1	0.26

Note: All estimates are adjusted by age (single years) to the U.S. 2000 standard population. Estimates are based on all U.S. race and ethnicity groups, except the estimates for specific race and ethnicity categories. NR = Not reported because the sample size is <30 or the standard error is >30% of the point estimate value. SE = standard error. Reference groups were used to test for statistical differences within sociodemographic characteristics.

\*  $P < 0.05$  based on t-test for differences against the reference group.

<sup>a</sup> Includes children with at least one primary tooth present and at least one decayed or filled primary tooth.

<sup>b</sup> Weighted mean estimates.

<sup>c</sup> Defined as the percentage of family income relative to the federal poverty level (FPL). High poverty = <100% FPL; middle poverty = 100%–199% FPL; high or middle poverty combined = <200% FPL; and low poverty = ≥200% FPL.

**Table 5. Prevalence of untreated tooth decay in primary or permanent teeth<sup>a</sup> among children aged 6–9 years, by selected characteristics, United States, National Health and Nutrition Examination Survey, 2017–March 2020**

Characteristic	2017–March 2020	
	% <sup>b</sup>	SE
<b>Total</b>	16.9	2.04
<b>Sex</b>		
Male (reference)	16.0	2.02
Female	17.8	2.86
<b>Race and ethnicity</b>		
White, non-Hispanic (reference)	14.1	2.61
Black, non-Hispanic	19.0	2.83
Mexican American	21.0	6.08
<b>Poverty status<sup>c</sup></b>		
High poverty	26.3*	3.76
Middle poverty	23.4*	2.84
Low poverty (reference)	10.0	2.54
<b>Poverty status<sup>c</sup></b>		
High and middle poverty combined	24.7*	2.05
Low poverty (reference)	10.0	2.54

Note: All estimates are adjusted by age (single years) to the U.S. 2000 standard population. Estimates are based on all U.S. race and ethnicity groups, except the estimates for specific race and ethnicity categories. SE = standard error. Reference groups were used to test for statistical differences within sociodemographic characteristics.

\*  $P < 0.05$  based on t-test for differences against the reference group.

<sup>a</sup> Defined as having one or more decayed primary or permanent teeth among children with at least one primary or permanent tooth.

<sup>b</sup> Weighted prevalence estimates.

<sup>c</sup> Defined as the percentage of family income relative to the federal poverty level (FPL). High poverty = <100% FPL; middle poverty = 100%–199% FPL; high or middle poverty combined = <200% FPL; and low poverty = ≥200% FPL.

**Table 6. Prevalence of tooth decay in primary or permanent teeth<sup>a</sup> among children aged 6–9 years, by selected characteristics, United States, National Health and Nutrition Examination Survey, 2017–March 2020**

Characteristic	2017–March 2020	
	% <sup>b</sup>	SE
<b>Total</b>	50.1	2.63
<b>Sex</b>		
Male (reference)	51.4	2.84
Female	48.7	3.32
<b>Race and ethnicity</b>		
White, non-Hispanic (reference)	43.4	3.60
Black, non-Hispanic	49.7	4.91
Mexican American	70.3*	6.08
<b>Poverty status<sup>c</sup></b>		
High poverty	59.9*	4.31
Middle poverty	61.4*	3.47
Low poverty (reference)	40.5	3.68
<b>Poverty status<sup>c</sup></b>		
High and middle poverty combined	60.4*	2.81
Low poverty (reference)	40.5	3.68

Note: All estimates are adjusted by age (single years) to the U.S. 2000 standard population. Estimates are based on all U.S. race and ethnicity groups, except the estimates for specific race and ethnicity categories. SE = standard error. Reference groups were used to test for statistical differences within sociodemographic characteristics.

\*  $P < 0.05$  based on t-test for differences against the reference group.

<sup>a</sup> Defined as having one or more decayed or filled primary teeth or one or more decayed, missing, or filled permanent teeth among children with at least one primary or permanent tooth.

<sup>b</sup> Weighted prevalence estimates.

<sup>c</sup> Defined as the percentage of family income relative to the federal poverty level (FPL). High poverty = <100% FPL; middle poverty = 100%–199% FPL; high or middle poverty combined = <200% FPL; and low poverty = ≥200% FPL.

**Table 7. Prevalence of untreated tooth decay in permanent teeth<sup>a</sup> among children aged 6–11 years, by selected characteristics, United States, National Health and Nutrition Examination Survey, 2017–March 2020**

Characteristic	2017–March 2020	
	% <sup>b</sup>	SE
<b>Total</b>	2.6	0.72
<b>Age (years)</b>		
6–8 (reference)	NR	NR
9–11	3.2	0.89
<b>Sex</b>		
Male (reference)	1.8	0.46
Female	NR	NR
<b>Race and ethnicity</b>		
White, non-Hispanic (reference)	NR	NR
Black, non-Hispanic	3.0	0.66
Mexican American	NR	NR
<b>Poverty status<sup>c</sup></b>		
High poverty	NR	NR
Middle poverty	NR	NR
Low poverty (reference)	NR	NR
<b>Poverty status<sup>c</sup></b>		
High and middle poverty combined	4.1	1.16
Low poverty (reference)	NR	NR

Note: All estimates are adjusted by age (single years) to the U.S. 2000 standard population. Estimates are based on all U.S. race and ethnicity groups, except the estimates for specific race and ethnicity categories. NR = Not reported because the sample size is <30 or the standard error is >30% of the point estimate value. SE = standard error. Reference groups were used to test for statistical differences within sociodemographic characteristics.

<sup>a</sup> Defined as having one or more untreated decayed permanent teeth among those with at least one permanent tooth.

<sup>b</sup> Weighted prevalence estimates.

<sup>c</sup> Defined as the percentage of family income relative to the federal poverty level (FPL). High poverty = <100% FPL; middle poverty = 100%–199% FPL; high or middle poverty combined = <200% FPL; and low poverty = ≥200% FPL.



**Table 8. Mean number of decayed (DT), missing (MT), filled (FT), and decayed, missing, or filled (DMFT) permanent teeth among children aged 6–11 years with at least one DMFT,<sup>a</sup> by selected characteristics, United States, National Health and Nutrition Examination Survey, 2017–March 2020**

Characteristic	2017–March 2020							
	DMFT		DT		MT		FT	
	Mean <sup>b</sup>	SE	Mean	SE	Mean	SE	Mean	SE
<b>Total</b>	2.0	0.13	0.3	0.07	NR	NR	1.6	0.14
<b>Age</b>								
6–8 (reference)	1.9	0.24	NR	NR	NR	NR	1.4	0.21
9–11	2.1	0.11	0.2	0.05	NR	NR	1.8	0.13
<b>Sex</b>								
Male (reference)	1.9	0.11	0.2	0.04	NR	NR	1.7	0.12
Female	2.1	0.23	0.4*	0.12	NR	NR	1.6	0.19
<b>Race and ethnicity</b>								
White, non-Hispanic (reference)	1.7	0.17	NR	NR	NR	NR	1.5	0.14
Black, non-Hispanic	2.1	0.19	0.2	0.05	NR	NR	1.8	0.19
Mexican American	2.0*	0.12	NR	NR	NR	NR	1.8	0.16
<b>Poverty status<sup>c</sup></b>								
High poverty	2.8*	0.33	NR	NR	NR	NR	1.7	0.18
Middle poverty	2.2*	0.18	NR	NR	NR	NR	1.9*	0.18
Low poverty (reference)	1.6	0.14	NR	NR	NR	NR	1.4	0.18
<b>Poverty status<sup>c</sup></b>								
High and middle poverty combined	2.5*	0.18	NR	NR	NR	NR	1.8*	0.20
Low poverty (reference)	1.6	0.14	NR	NR	NR	NR	1.4	0.18

Note: All estimates are adjusted by age (single years) to the U.S. 2000 standard population. Estimates are based on all U.S. race and ethnicity groups, except the estimates for specific race and ethnicity categories. NR = Not reported because the sample size is <30 or the standard error is >30% of the point estimate value. SE = standard error. Reference groups were used to test for statistical differences within sociodemographic characteristics.

\*  $P < 0.05$  based on t-test for differences against the reference group.

<sup>a</sup> Includes children with at least one permanent tooth present and at least one decayed, missing, or filled permanent tooth.

<sup>b</sup> Weighted mean estimates.

<sup>c</sup> Defined as the percentage of family income relative to the federal poverty level (FPL). High poverty = <100% FPL; middle poverty = 100%–199% FPL; high or middle poverty combined = <200% FPL; and low poverty = ≥200% FPL.

**Table 9. Prevalence of untreated tooth decay in permanent teeth<sup>a</sup> among adolescents aged 12–19 years, by selected characteristics, United States, National Health and Nutrition Examination Survey, 2017–March 2020**

Characteristic	2017–March 2020	
	% <sup>b</sup>	SE
<b>Total</b>	10.4	1.05
<b>Age (years)</b>		
12–15 (reference)	8.6	1.21
16–19	12.1*	1.48
<b>Sex</b>		
Male (reference)	11.7	1.47
Female	9.0	0.99
<b>Race and ethnicity</b>		
White, non-Hispanic (reference)	11.7	2.02
Black, non-Hispanic	12.9	2.57
Mexican American	6.9*	1.22
<b>Poverty status<sup>c</sup></b>		
High poverty	14.1*	2.42
Middle poverty	12.4	2.18
Low poverty (reference)	8.2	1.37
<b>Poverty status<sup>c</sup></b>		
High and middle poverty combined	13.2*	1.47
Low poverty (reference)	8.2	1.37

Note: All estimates are adjusted by age (single years) to the U.S. 2000 standard population. Estimates are based on all U.S. race and ethnicity groups, except the estimates for specific race and ethnicity categories. SE = standard error. Reference groups were used to test for statistical differences within sociodemographic characteristics.

\*  $P < 0.05$  based on t-test for differences against the reference group.

<sup>a</sup> Defined as having one or more untreated decayed permanent teeth among adolescents with at least one permanent tooth.

<sup>b</sup> Weighted prevalence estimates.

<sup>c</sup> Defined as the percentage of family income relative to the federal poverty level (FPL). High poverty = <100% FPL; middle poverty = 100%–199% FPL; high or middle poverty combined = <200% FPL; and low poverty = ≥200% FPL.

**Table 10. Mean number of decayed (DT), missing (MT), filled (FT), and decayed, missing, or filled (DMFT) permanent teeth among adolescents aged 12–19 years with at least one DMFT,<sup>a</sup> by selected characteristics, United States, National Health and Nutrition Examination Survey, 2017–March 2020**

Characteristic	2017–March 2020							
	DMFT		DT		MT		FT	
	Mean <sup>b</sup>	SE	Mean	SE	Mean	SE	Mean	SE
<b>Total</b>	4.2	0.13	0.4	0.04	0.1	0.01	3.7	0.12
<b>Age</b>								
12–15 (reference)	3.5	0.16	0.4	0.06	0.1	0.01	3.0	0.14
16–19	4.9*	0.17	0.4	0.05	0.1	0.02	4.4*	0.17
<b>Sex</b>								
Male (reference)	4.4	0.23	0.5	0.06	0.1	0.02	3.9	0.22
Female	3.9	0.13	0.3*	0.04	0.1	0.01	3.5	0.13
<b>Race and ethnicity</b>								
White, non-Hispanic (reference)	4.0	0.16	0.5	0.09	0.1	0.02	3.5	0.15
Black, non-Hispanic	4.4	0.30	0.5	0.09	NR	NR	3.7	0.32
Mexican American	4.5	0.29	0.2*	0.04	NR	NR	4.3*	0.27
<b>Poverty status<sup>c</sup></b>								
High poverty	4.7	0.22	0.5	0.11	NR	NR	4.1	0.20
Middle poverty	4.3	0.28	NR	NR	0.1	0.01	3.7	0.24
Low poverty (reference)	4.0	0.22	0.3	0.06	0.1	0.01	3.6	0.21
<b>Poverty status<sup>c</sup></b>								
High and middle poverty combined	4.5	0.20	0.6	0.10	0.1	0.01	3.9	0.17
Low poverty (reference)	4.0	0.22	0.3	0.06	0.1	0.01	3.6	0.21

Note: All estimates are adjusted by age (single years) to the U.S. 2000 standard population. Estimates are based on all U.S. race and ethnicity groups, except the estimates for specific race and ethnicity categories. NR = Not reported because the sample size is <30 or the standard error is >30% of the point estimate value. SE = standard error. Reference groups were used to test for statistical differences within sociodemographic characteristics.

\*  $P < 0.05$  based on t-test for differences against the reference group.

<sup>a</sup> Includes adolescents with at least one permanent tooth present and at least one decayed, missing, or filled permanent tooth.

<sup>b</sup> Weighted mean estimates.

<sup>c</sup> Defined as the percentage of family income relative to the federal poverty level (FPL). High poverty = <100% FPL; middle poverty = 100%–199% FPL; high or middle poverty combined = <200% FPL; and low poverty =  $\geq 200\%$  FPL.

**Table 11. Prevalence of untreated tooth decay in permanent teeth<sup>a</sup> among dentate adults aged 20–64 years, by selected characteristics, United States, National Health and Nutrition Examination Survey, 2017–March 2020**

Characteristic	2017–March 2020	
	% <sup>b</sup>	SE
<b>Total</b>	20.5	1.62
<b>Age (years)</b>		
20–34 (reference)	21.8	2.42
35–49	21.4	1.85
50–64	17.3*	1.64
<b>Sex</b>		
Male (reference)	22.8	2.05
Female	18.3*	1.56
<b>Race and ethnicity</b>		
White, non-Hispanic (reference)	18.3	2.28
Black, non-Hispanic	30.3*	1.97
Mexican American	20.7	2.36
<b>Poverty status<sup>c</sup></b>		
High poverty	39.6*	2.29
Middle poverty	30.9*	1.99
Low poverty (reference)	13.2	1.54
<b>Poverty status<sup>c</sup></b>		
High and middle poverty combined	34.3*	1.86
Low poverty (reference)	13.2	1.54
<b>Education</b>		
<High school	39.1*	2.86
High school	30.2*	2.51
>High school (reference)	13.6	1.19
<b>Cigarette smoking history</b>		
Current	41.4*	2.57
Former	18.9	2.25
Never (reference)	14.8	1.33

Note: All estimates are adjusted by age (5-year groups) to the U.S. 2000 standard population. Estimates are based on all U.S. race and ethnicity groups, except the estimates for specific race and ethnicity categories. SE = standard error. Reference groups were used to test for statistical differences within sociodemographic characteristics.

\*  $P < 0.05$  based on t-test for differences against the reference group.

<sup>a</sup> Defined as having one or more untreated decayed permanent teeth among adults with at least one permanent tooth.

<sup>b</sup> Weighted prevalence estimates.

<sup>c</sup> Defined as the percentage of family income relative to the federal poverty level (FPL). High poverty = <100% FPL; middle poverty = 100%–199% FPL; high or middle poverty combined = <200% FPL; and low poverty = ≥200% FPL.

**Table 12. Mean number of decayed (DT), missing (MT), filled (FT), decayed and filled (DFT), and decayed, missing, or filled (DMFT) permanent teeth among dentate adults aged 20–64 years with at least one DMFT,<sup>a</sup> by selected characteristics, United States, National Health and Nutrition Examination Survey, 2017–March 2020**

Characteristic	2017–March 2020									
	DMFT		DFT		DT		MT		FT	
	Mean <sup>b</sup>	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<b>Total</b>	8.6	0.17	6.6	0.13	0.7	0.05	2.0	0.11	6.0	0.14
<b>Age (years)</b>										
20–34 (reference)	6.4	0.28	5.7	0.20	0.8	0.09	0.7	0.12	4.8	0.18
35–49	8.5*	0.17	6.6*	0.14	0.6*	0.07	1.8*	0.12	6.0*	0.15
50–64	11.8*	0.19	7.9*	0.22	0.4*	0.05	3.8*	0.24	7.5*	0.26
<b>Sex</b>										
Male (reference)	8.1	0.22	6.3	0.19	0.7	0.07	1.9	0.13	5.5	0.16
Female	9.0*	0.19	7.0*	0.16	0.6	0.05	2.0	0.11	6.4*	0.18
<b>Race and ethnicity</b>										
White, non-Hispanic (reference)	8.8	0.21	7.0	0.18	0.7	0.08	1.8	0.16	6.4	0.22
Black, non-Hispanic	8.2*	0.21	5.3*	0.24	0.8	0.06	2.9*	0.14	4.5*	0.22
Mexican American	7.6*	0.15	6.0*	0.17	0.6	0.09	1.7	0.10	5.4*	0.22
<b>Poverty status<sup>c</sup></b>										
High poverty	8.9*	0.23	5.7*	0.15	1.4*	0.11	3.3*	0.17	4.3*	0.18
Middle poverty	9.6*	0.37	6.7	0.31	1.1*	0.10	2.9*	0.13	5.6*	0.26
Low poverty (reference)	8.2	0.15	6.8	0.14	0.4	0.05	1.4	0.12	6.4	0.15
<b>Poverty status<sup>c</sup></b>										
High and middle poverty combined	9.3*	0.28	6.3*	0.22	1.2*	0.06	3.0*	0.11	5.1*	0.22
Low poverty (reference)	8.2	0.15	6.8	0.14	0.4	0.05	1.4	0.12	6.4	0.15
<b>Education</b>										
<High school	9.0*	0.24	5.4*	0.19	1.3*	0.13	3.6*	0.25	4.1*	0.23
High school	9.6*	0.23	6.7	0.15	1.0*	0.08	2.9*	0.19	5.7*	0.20
>High school (reference)	8.1	0.17	6.8	0.17	0.4	0.04	1.3	0.08	6.4	0.17
<b>Cigarette smoking history</b>										
Current	9.9*	0.32	6.0*	0.20	1.5*	0.09	3.9*	0.28	4.5*	0.21
Former	8.5	0.20	6.6	0.21	0.6	0.08	1.9*	0.15	6.0	0.22
Never (reference)	8.2	0.14	6.8	0.13	0.4	0.05	1.4	0.09	6.4	0.16

Note: All estimates are adjusted by age (5-year groups) to the U.S. 2000 standard population. Estimates are based on all U.S. race and ethnicity groups, except the estimates for specific race and ethnicity categories. SE = standard error. Reference groups were used to test for statistical differences within sociodemographic characteristics.

\*  $P < 0.05$  based on t-test for differences against the reference group.

<sup>a</sup> Includes adults with at least one permanent tooth present and at least one decayed, missing, or filled permanent tooth.

<sup>b</sup> Weighted mean estimates.

<sup>c</sup> Defined as the percentage of family income relative to the federal poverty level (FPL). High poverty = <100% FPL; middle poverty = 100%–199% FPL; high or middle poverty combined = <200% FPL; and low poverty = ≥200% FPL.

**Table 13. Prevalence of untreated tooth decay in permanent teeth<sup>a</sup> among dentate adults aged 65 years or older, by selected characteristics, United States, National Health and Nutrition Examination Survey, 2017–March 2020**

Characteristic	2017–March 2020	
	% <sup>b</sup>	SE
<b>Total</b>	12.5	1.09
<b>Age (years)</b>		
65–74 (reference)	12.4	1.33
≥75	12.6	2.04
<b>Sex</b>		
Male (reference)	14.0	1.50
Female	11.2	1.20
<b>Race and ethnicity</b>		
White, non-Hispanic (reference)	9.3	1.21
Black, non-Hispanic	28.4*	2.58
Mexican American	24.0*	6.64
<b>Poverty status<sup>c</sup></b>		
High poverty	28.7*	3.45
Middle poverty	19.4*	2.62
Low poverty (reference)	7.9	0.86
<b>Poverty status<sup>c</sup></b>		
High and middle poverty combined	21.5*	2.40
Low poverty (reference)	7.9	0.86
<b>Education</b>		
<High school	20.0*	3.36
High school	14.9*	2.04
>High school (reference)	10.2	0.97
<b>Cigarette smoking history</b>		
Current	27.6*	6.36
Former	13.9	2.35
Never (reference)	9.7	0.94

Note: All estimates are adjusted by age (5-year groups; maximum age group is ≤80 years) to the U.S. 2000 standard population. Estimates are based on all U.S. race and ethnicity groups, except the estimates for specific race and ethnicity categories. SE = standard error. Reference groups were used to test for statistical differences within sociodemographic characteristics.

\*  $P < 0.05$  based on t-test for differences against the reference group.

<sup>a</sup> Defined as having one or more untreated decayed permanent teeth among older adults with at least one permanent tooth.

<sup>b</sup> Weighted prevalence estimates.

<sup>c</sup> Defined as the percentage of family income relative to the federal poverty level (FPL). High poverty = <100% FPL; middle poverty = 100%–199% FPL; high or middle poverty combined = <200% FPL; and low poverty = ≥200% FPL.

**Table 14. Mean number of decayed (DT), missing (MT), filled (FT), decayed and filled (DFT), and decayed, missing, or filled (DMFT) permanent teeth among dentate adults<sup>a</sup> aged 65 years or older, by selected characteristics, United States, National Health and Nutrition Examination Survey, 2017–March 2020**

Characteristic	2017–March 2020									
	DMFT		DFT		DT		MT		FT	
	Mean <sup>b</sup>	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<b>Total</b>	16.0	0.24	9.6	0.23	0.2	0.02	6.4	0.28	9.3	0.23
<b>Age</b>										
65–74 (reference)	14.8	0.36	9.2	0.26	0.2	0.03	5.6	0.39	9.0	0.27
≥75	17.4*	0.22	10.0	0.32	0.2	0.03	7.4*	0.29	9.7	0.32
<b>Sex</b>										
Male (reference)	15.7	0.34	9.3	0.30	0.3	0.03	6.5	0.36	9.0	0.32
Female	16.2	0.23	9.8	0.27	0.2*	0.02	6.4	0.32	9.6	0.27
<b>Race and ethnicity</b>										
White, non-Hispanic (reference)	16.2	0.30	10.5	0.24	0.2	0.02	5.6	0.38	10.4	0.24
Black, non-Hispanic	15.8	0.33	5.2*	0.35	0.5*	0.04	10.6*	0.42	4.7*	0.36
Mexican American	14.9*	0.47	7.4*	0.42	0.3*	0.08	7.6*	0.67	7.0*	0.43
<b>Poverty status<sup>c</sup></b>										
High poverty	17.2	0.64	6.1*	0.60	0.5*	0.07	11.2*	0.89	5.6*	0.59
Middle poverty	16.3	0.35	7.4*	0.26	0.4*	0.07	8.9*	0.48	7.0*	0.31
Low poverty (reference)	15.8	0.32	10.5	0.29	0.1	0.03	5.3	0.39	10.4	0.30
<b>Poverty status<sup>c</sup></b>										
High and middle poverty combined	16.5	0.34	7.1*	0.22	0.4*	0.06	9.4*	0.45	6.7*	0.25
Low poverty (reference)	15.8	0.32	10.5	0.29	0.1	0.03	5.3	0.39	10.4	0.30
<b>Education</b>										
<High school	15.9	0.46	5.3*	0.38	0.4*	0.08	10.6*	0.59	4.9*	0.35
High school	16.7*	0.43	8.9*	0.45	0.2	0.03	7.8*	0.52	8.7*	0.46
>High school (reference)	15.7	0.23	10.6	0.29	0.2	0.03	5.1	0.32	10.4	0.29
<b>Cigarette smoking history</b>										
Current	18.2*	0.73	7.8*	0.79	NR	NR	10.4*	0.77	7.2*	0.85
Former	16.4*	0.36	9.4	0.28	0.2	0.04	7.0*	0.48	9.1	0.29
Never (reference)	15.4	0.22	9.9	0.30	0.2	0.02	5.5	0.27	9.7	0.30

Note: All estimates are adjusted by age (5-year groups; maximum age group is ≤80 years) to the U.S. 2000 standard population. Estimates are based on all U.S. race and ethnicity groups, except the estimates for specific race and ethnicity categories. NR = Not reported because the sample size is <30 or the standard error is >30% of the point estimate value. SE = standard error. Reference groups were used to test for statistical differences within sociodemographic characteristics.

\*  $P < 0.05$  based on t-test for differences against the reference group.

<sup>a</sup> Includes older adults with at least one permanent tooth with or without dental caries or sequelae.

<sup>b</sup> Weighted mean estimates.

<sup>c</sup> Defined as the percentage of family income relative to the federal poverty level (FPL). High poverty = <100% FPL; middle poverty = 100%–199% FPL; high or middle poverty combined = <200% FPL; and low poverty = ≥200% FPL.



**Table 15. Mean number of permanent teeth among dentate adults<sup>a</sup> aged 20–64 years, by selected characteristics, United States, National Health and Nutrition Examination Survey, 2017–March 2020**

Characteristic	2017–March 2020	
	Mean <sup>b</sup>	SE
<b>Total</b>	25.5	0.13
<b>Age (years)</b>		
20–34 (reference)	27.0	0.12
35–49	25.6*	0.16
50–64	23.3*	0.29
<b>Sex</b>		
Male (reference)	25.6	0.15
Female	25.4	0.13
<b>Race and ethnicity</b>		
White, non-Hispanic (reference)	25.6	0.19
Black, non-Hispanic	24.6*	0.14
Mexican American	25.9	0.12
<b>Poverty status<sup>c</sup></b>		
High poverty	23.9*	0.22
Middle poverty	24.5*	0.16
Low poverty (reference)	26.1	0.14
<b>Poverty status<sup>c</sup></b>		
High and middle poverty combined	24.2*	0.13
Low poverty (reference)	26.1	0.14
<b>Education</b>		
<High school	23.8*	0.31
High school	24.5*	0.21
>High school (reference)	26.2	0.11
<b>Cigarette smoking history</b>		
Current	23.3*	0.28
Former	25.5*	0.18
Never (reference)	26.1	0.11

Note: All estimates are adjusted by age (5-year groups) to the U.S. 2000 standard population. Estimates are based on all U.S. race and ethnicity groups, except the estimates for specific race and ethnicity categories. SE = standard error. Reference groups were used to test for statistical differences within sociodemographic characteristics.

\*  $P < 0.05$  based on t-test for differences against the reference group.

<sup>a</sup> Includes adults with at least one permanent tooth present.

<sup>b</sup> Weighted mean estimates.

<sup>c</sup> Defined as the percentage of family income relative to the federal poverty level (FPL). High poverty = <100% FPL; middle poverty = 100%–199% FPL; high or middle poverty combined = <200% FPL; and low poverty = ≥200% FPL.

**Table 16. Percentage of adults aged 20–64 years who were edentulous,<sup>a</sup> by selected characteristics, United States, National Health and Nutrition Examination Survey, 2017–March 2020**

Characteristic	2017–March 2020	
	% <sup>b</sup>	SE
<b>Total</b>	2.0	0.17
<b>Age (years)</b>		
20–34 (reference)	NR	NR
35–49	1.2	0.30
50–64	5.9	0.67
<b>Sex</b>		
Male (reference)	1.8	0.32
Female	2.3	0.36
<b>Race and ethnicity</b>		
White, non-Hispanic (reference)	2.3	0.23
Black, non-Hispanic	1.8	0.27
Mexican American	NR	NR
<b>Poverty status<sup>c</sup></b>		
High poverty	6.8*	1.11
Middle poverty	3.6*	0.39
Low poverty (reference)	0.9	0.22
<b>Poverty status<sup>c</sup></b>		
High and middle poverty combined	5.0*	0.62
Low poverty (reference)	0.9	0.22
<b>Education</b>		
<High school	4.2*	0.70
High school	3.5*	0.49
>High school (reference)	1.0	0.15
<b>Cigarette smoking history</b>		
Current	7.6*	0.80
Former	1.7*	0.34
Never (reference)	0.3	0.07

Note: All estimates are adjusted by age (5-year groups) to the U.S. 2000 standard population. Estimates are based on all U.S. race and ethnicity groups, except the estimates for specific race and ethnicity categories. NR = Not reported because the sample size is <30 or the standard error is >30% of the point estimate value. SE = standard error. Reference groups were used to test for statistical differences within sociodemographic characteristics.

\*  $P < 0.05$  based on t-test for differences against the reference group.

<sup>a</sup> Defined as having lost all permanent teeth.

<sup>b</sup> Weighted prevalence estimates.

<sup>c</sup> Defined as the percentage of family income relative to the federal poverty level (FPL). High poverty = <100% FPL; middle poverty = 100%–199% FPL; high or middle poverty combined = <200% FPL; and low poverty = ≥200% FPL.

**Table 17. Mean number of permanent teeth among dentate adults<sup>a</sup> aged 65 years or older, by selected characteristics, United States, National Health and Nutrition Examination Survey, 2017–March 2020**

Characteristic	2017–March 2020	
	Mean <sup>b</sup>	SE
<b>Total</b>	20.9	0.27
<b>Age (years)</b>		
65–74 (reference)	21.7	0.37
≥75	19.8*	0.29
<b>Sex</b>		
Male (reference)	20.7	0.36
Female	21.0	0.32
<b>Race and ethnicity</b>		
White, non-Hispanic (reference)	21.7	0.36
Black, non-Hispanic	16.2*	0.53
Mexican American	19.7*	0.66
<b>Poverty status<sup>c</sup></b>		
High poverty	15.9*	0.90
Middle poverty	18.2*	0.50
Low poverty (reference)	22.1	0.38
<b>Poverty status<sup>c</sup></b>		
High and middle poverty combined	17.6*	0.45
Low poverty (reference)	22.1	0.38
<b>Education</b>		
<High school	16.8*	0.62
High school	19.3*	0.57
>High school (reference)	22.2	0.31
<b>Cigarette smoking history</b>		
Current	16.3*	1.05
Former	20.2*	0.44
Never (reference)	21.9	0.27

Note: All estimates are adjusted by age (5-year groups; maximum age group is ≤80 years) to the U.S. 2000 standard population. Estimates are based on all U.S. race and ethnicity groups, except the estimates for specific race and ethnicity categories. SE = standard error. Reference groups were used to test for statistical differences within sociodemographic characteristics.

\*  $P < 0.05$  based on t-test for differences against the reference group.

<sup>a</sup> Includes older adults with at least one permanent tooth present.

<sup>b</sup> Weighted mean estimates.

<sup>c</sup> Defined as the percentage of family income relative to the federal poverty level (FPL). High poverty = <100% FPL; middle poverty = 100%–199% FPL; high or middle poverty combined = <200% FPL; and low poverty = ≥200% FPL.

**Table 18. Percentage of adults aged 65 years or older who were edentulous,<sup>a</sup> by selected characteristics, United States, National Health and Nutrition Examination Survey, 2017–March 2020**

Characteristic	2017–March 2020	
	% <sup>b</sup>	SE
<b>Total</b>	15.2	1.48
<b>Age (years)</b>		
65–74 (reference)	11.4	1.76
≥75	19.7*	1.95
<b>Sex</b>		
Male (reference)	15.7	1.82
Female	14.7	1.59
<b>Race and ethnicity</b>		
White, non-Hispanic (reference)	13.9	2.03
Black, non-Hispanic	21.8*	3.17
Mexican American	15.9	2.73
<b>Poverty status<sup>c</sup></b>		
High poverty	29.8*	2.63
Middle poverty	20.5*	2.44
Low poverty (reference)	11.8	2.28
<b>Poverty status<sup>c</sup></b>		
High and middle poverty combined	22.9*	1.86
Low poverty (reference)	11.8	2.28
<b>Education</b>		
<High school	33.4*	2.68
High school	18.9*	2.77
>High school (reference)	8.8	1.21
<b>Cigarette smoking history</b>		
Current	29.4*	3.90
Former	16.4	2.37
Never (reference)	11.9	1.25

Note: All estimates are adjusted by age (5-year groups; maximum age group is ≤80 years) to the U.S. 2000 standard population. Estimates are based on all U.S. race and ethnicity groups, except the estimates for specific race and ethnicity categories. SE = standard error. Reference groups were used to test for statistical differences within sociodemographic characteristics.

\*  $P < 0.05$  based on t-test for differences against the reference group.

<sup>a</sup> Defined as having lost all permanent teeth.

<sup>b</sup> Weighted prevalence estimates.

<sup>c</sup> Defined as the percentage of family income relative to the federal poverty level (FPL). High poverty = <100% FPL; middle poverty = 100%–199% FPL; high or middle poverty combined = <200% FPL; and low poverty = ≥200% FPL.



