

VITAL & HEALTH STATISTICS

Decayed, Missing, and Filled Teeth Among Persons 1-74 Years United States

This report from the National Center for Health Statistics presents estimates of decayed, missing, and filled (DMF) permanent teeth among persons 1-74 years of age by age, race, sex, and selected demographic characteristics. These estimates are based on examinations conducted during 1971-74 on 20,749 persons who were selected by a probability sampling to represent the civilian noninstitutionalized population of those aged 1-74 years living in the United States.

**Data From the National Health Survey
Series 11, No. 223**

DHHS Publication No. (PHS) 81-1673

U.S. Department of Health and Human
Services
Public Health Service
Office of Health Research, Statistics, and
Technology
National Center for Health Statistics
Hyattsville, Md.
August 1981

Library of Congress Cataloging in Publication Data

Harvey, Clair R

Decayed, missing, and filled teeth among persons 1-74 years, United States, 1971-74.

(Vital and health statistics : Series 11, Data from the National Health Survey ; no. 223) (DHHS publication ; no. PHS 81-1673)

Includes bibliographical references.

Supt. of Docs. no.: HE 20.6209: 11/223

1. Tooth loss—United States—Statistics. 2. Dental caries—United States—Statistics. 3. Fillings (Dentistry)—United States—Statistics. 4. Dental surveys—United States. I. Kelly, James E., joint author. II. Title. III. Series: United States. National Center for Health Statistics. Vital and health statistics : Series 11, Data from the National Health Survey, Data From the National Health Examination Survey ; no. 223. IV. Series: United States. Dept. of Health and Human Services. DHHS publication ; no. (PHS) 81-1673.

National Center for Health Statistics

DOROTHY P. RICE, *Director*

ROBERT A. ISRAEL, *Deputy Director*

JACOB J. FELDMAN, Ph.D., *Associate Director for Analysis*

GAIL F. FISHER, Ph.D., *Associate Director for the
Cooperative Health Statistics System*

ROBERT A. ISRAEL, *Associate Director for Data Systems*

ALVAN O. ZARATE, Ph.D., *Associate Director for
International Statistics*

ROBERT C. HUBER, *Associate Director for Management*

MONROE G. SIRKEN, Ph.D., *Associate Director for
Mathematical Statistics*

PETER L. HURLEY, *Associate Director for Operations*

JAMES M. ROBEY, Ph.D., *Associate Director for Program
Development*

GEORGE A. SCHNACK, *Associate Director for Research*

ALICE HAYWOOD, *Information Officer*

Division of Health Examination Statistics

ROBERT S. MURPHY, *Director*

MARY GRACE KOVAR, *Deputy Director*

JEAN ROBERTS, *Chief, Medical Statistics Branch*

KURT MAURER, *Chief, Survey Planning and
Development Branch*

Division of Operations

HENRY MILLER, *Chief, Health Examination Field
Operations Branch*

Cooperation of the U.S. Bureau of the Census

In accordance with specifications established by the National Health Survey, the Bureau of the Census, under a contractual agreement, participated in the design and selection of the sample, and carried out the first stage of the field interviewing and certain parts of the statistical processing.

Library of Congress Catalog Card Number 81-1673

Contents

Introduction	1
Highlights	3
Findings	4
Primary teeth	4
Permanent teeth	4
Comparison with previous national studies	11
Discussion	15
Summary	17
References	18
List of detailed tables	19
Appendixes	41
I. Statistical notes	42
II. Demographic and socioeconomic terms	47
III. The dental examination	48
List of Text Figures	
1. Average number of decayed (d), nonfunctional-carious (e), and filled (f) teeth with confidence intervals and average number of def components per child among children 1-5 years of age, by sex and race: United States, 1971-74	4
2. Average number of decayed, missing, and filled (DMF) teeth per child among children 6-11 years of age, by age and sex: United States, 1971-74	5
3. Average number of decayed, missing, and filled (DMF) teeth per person among youths 12-17 years of age, by age and sex: United States, 1971-74	7
4. Average number of decayed (D), missing (M), and filled (F) teeth among dentulous adults 18-74 years of age, by age and sex, with confidence intervals: United States, 1971-74	8
5. Average number of decayed (D), missing (M), and filled (F) teeth with confidence intervals and average number of DMF components per child among children 6-11 years of age, by sex and race: United States, 1971-74	9
6. Average number of decayed (D), missing (M), and filled (F) teeth with confidence intervals and average number of DMF components per person among youths 12-17 years of age, by sex and race: United States, 1971-74	9
7. Number of places and population served by adjusted fluoridation: United States, 1945-75	12
8. Average number of decayed, missing, and filled (DMF) permanent teeth per person among children and youths 6-16 years of age living in areas with water supplies fluoridated and nonfluoridated and estimates for all U.S. children from the 1963-70 National Health Examination Surveys (NHES), by age	13
9. Average number of DMF, decayed (D), missing (M), and filled (F) teeth per person among persons 6-44 years of age, by age: United States, 1971-74	16

List of Text Tables

A. Mean number of primary teeth per child among children 1-11 years of age, by race, sex, and age: United States, 1971-74 . . . 5

B. Average number of erupted permanent teeth per child among children 6-11 years of age, by race, sex, and age, with standard errors of the estimates: United States, 1971-74 6

C. Average number of erupted permanent teeth per person among youths 12-17 years of age, by race, sex, and age, with standard errors of the estimates: United States, 1971-74 7

D. Average number of decayed (D), missing (M), and filled (F) permanent teeth per person among children 6-11 years of age and youths 12-17 years of age, by sex and age: United States, 1963-65 (children), 1966-70 (youths) and 1971-74 12

E. Average number of decayed (D), missing (M), and filled (F) permanent teeth per person among adults 18-34 years of age, by sex and age: United States, 1960-62 (adults) and 1971-74 13

F. Percent of edentulous persons among adults 35-74 years of age, by sex and age: United States, 1960-62 and 1971-74 . . . 14

G. Average number of decayed (D), missing (M), and filled (F) permanent teeth per person, among adults 35-74 years of age, by sex and age: United States, 1960-62 and 1971-74 14

Symbols

- Data not available
 - ... Category not available
 - Quantity zero
 - 0.0 Quantity more than zero but less than 0.05
 - Z Quantity more than zero but less than 500
 - * Figure does not meet standards of reliability or precision (more than 25-percent relative standard error)
 - # Figure suppressed to comply with confidentiality requirements
-

Decayed, missing, and filled teeth among persons 1-74 years

by Clair Harvey and James E. Kelly, D.D.S.,
Division of Health Examination Statistics

Introduction

The first National Health and Nutrition Examination Survey was started in April 1971 and completed in June 1974. Measures of nutritional and related general health status for a probability sample representative of the civilian noninstitutionalized population of the United States 1-74 years of age were collected by means of this program. Of the approximately 28,000 persons selected, 74 percent or 20,749 of those sampled were examined.

There was oversampling done at known rates for those persons believed to be at high risk of malnutrition. This category consisted of those with low incomes, preschool children, women of childbearing age, and the elderly. Adjusted sampling weights were later computed within 60 age, sex, and race categories to inflate the sample so that it reflected the U.S. population at the midpoint of the survey. Information on the general health status of the entire age group as well as more detailed health assessment data on those 25-74 years of age was obtained through the program. At 65 survey locations, a dental examination was given to the entire sample that was examined. After the nutrition survey was completed, the detailed examinations, excluding the dental examination given to the age groups 25-74 years, was continued until October 1975 at 35 additional locations.

Information about each sample person examined during the first National Health and Nutrition Examination Survey was obtained by means of a household interview; a general medical history; a 24-hour dietary intake recall interview; a food frequency interview; a food program questionnaire; a general medical examination; dental, dermatological, and ophthalmological examinations; anthropometric measurements; and 24 hematological, blood chemistry, and urological laboratory determinations. Also, hand-wrist X-rays were taken on those 1-17 years of age.

Additional information was collected from the

subsample of adults aged 25-74 years by means of the following questionnaires, procedures, and measurements: a medical history supplement; three supplementary questionnaires concerning arthritic, respiratory, and cardiovascular conditions for those with symptoms; a health care needs questionnaire; a general well-being questionnaire; an extended medical examination; X-rays of the chest and hip-sacroiliac and knee joints; audiometry; electrocardiography; goniometry; spirometry; pulmonary diffusion and tuberculin tests; and additional laboratory determinations. A detailed description of the specific content of the survey, plan of operation, and sample design is provided in the following reports: Plan and Operation of the Health and Nutrition Examination Survey, Series 1, Nos. 10a and 10b.^{1,2}

This report contains national estimates of the number of decayed, missing, and filled teeth among persons 1-74 years by age, sex, race, and other selected demographic characteristics. In the text and tables that follow, the occurrence of decay among specified groups is described by citing the mean number of decayed (D), missing (M), and filled (F) teeth per person found among them. In several instances, DMF findings from this survey are also compared with those of the three previous national surveys—the first among adults aged 18-79 years in 1960-62, the second among children aged 6-11 years in 1963-65, and the third among youths aged 12-17 years in 1966-70.³⁻⁵ The DMF teeth are defined as the total number of permanent teeth that are decayed, filled, and either missing or indicated for extraction (nonfunctional-carious). Children, youths, and young adults rarely lose teeth because of periodontal disease, but many frequently lose teeth because of neglected decay. Teeth are also lost as a result of accidents or are extracted because of crowding. Thus when the teeth lost by these young people for reasons other than decay are excluded from the DMF counts, the DMF index accurately records the number of permanent teeth that have been attacked by decay at least once.

On the other hand, older adults often lose teeth from severe periodontal disease that progressively destroys the structures supporting the teeth in the jaw. Therefore, among older men and women whose missing teeth may never have had decay, the DMF index merely provides a summation of the lifetime toll of all dental disease.

The number of primary teeth present and previously attacked by decay is indicated by the mean number of decayed (d), nonfunctional-carious (e), and filled (f) primary teeth per child for children 1-11 years of age. The def index does not include missing teeth because the results of cross-sectional surveys such as the first National Health and Nutrition Examination Survey (NHANES I) do not show whether missing primary teeth were decayed before they were either shed or extracted. Thus the def index provides a count of the number of primary

teeth present at the time of examination that had been attacked by decay at least once.

The components of both the DMF and the def index—decayed (untreated), filled, and missing or nonfunctional teeth—are also presented by specified demographic characteristics. Each component is an indicator of the relative adequacy or inadequacy of professional dental care received. Specifically, a large F or f component reflects favorably on the adequacy of previous care whereas, by contrast, relatively large D or d and M or e components indicate lower levels of care. Statistically significant differences between estimates of persons aged 1-74 years as well as observed differences (which may be of interest even though they may not be statistically significant) are discussed. Statistically significant differences are clearly labelled.

Highlights

When 20,749 people in a national probability sample of the United States civilian noninstitutionalized population were examined by dentists in 1971-74, it was found that:

- An estimated 20 percent of children 1-5 years of age had at least one untreated decayed primary tooth.
- An estimated 31 percent of children 6-11 years of age had at least one untreated decayed permanent tooth.
- An estimated 54 percent of youths 12-17 years of age had at least one untreated decayed permanent tooth.
- An estimated 47 percent of adults 18-74 years of age, with at least one natural tooth, had at least one untreated decayed permanent tooth.
- Children aged 1-5 years averaged 1.0 decayed, nonfunctional-carious, and filled primary tooth per child. Of these, 0.7 were untreated decayed teeth.
- Children aged 6-11 years averaged 1.7 decayed, missing, and filled permanent teeth per child. Of these, 0.7 were untreated decayed teeth.
- Youths aged 12-17 years averaged 6.2 decayed, missing, and filled permanent teeth per person. Of these, 1.8 were untreated decayed teeth.
- Adults aged 18-74 years, with at least one natural tooth, averaged 16.9 decayed, missing, and filled permanent teeth per person. Of these, 1.4 were untreated decayed teeth.
- There was no change in the average number of decayed, missing, and filled teeth among children between 1963-65 when the National Health Examination Survey (NHES) Cycle II was conducted and the 1971-74 survey.
- There was no change in the average number of decayed, missing, and filled teeth among youths between 1966-70 when the National Health Examination Survey Cycle III was conducted and the 1971-74 survey.
- An improvement among adults between 1960-62 when the National Health Examination Survey Cycle I was conducted and 1971-74 was indicated. Young adults aged 18-24 years had, on the average, 2.3 fewer missing teeth in 1971-74 than in 1960-62. About 3-4 percent fewer adults aged 45-74 were edentulous in 1971-74 than in 1960-62. On the average, adults aged 35-74 years who still retained some of their natural teeth had 2 more filled teeth in 1971-74 than in 1960-62.

Findings

Primary teeth

National estimates of the average number of decayed, nonfunctional-carious, and filled primary teeth per child in the United States in 1971-74 by age, sex, and race are found in tables 1 and 2. For children 1-5 years of age, for all races, the average number of def teeth increased with advancing age from a low of 0 for children 1 year of age to a high of 2.2 per child for those 5 years of age. The average number of def teeth for children aged 6-11 years declined with advancing age from a high of about four for children 7 and 8 years of age to a low of about one per child for those 11 years of age. White boys had about the same average number of def teeth per child as white girls for children 1-5 years of age (1.0 compared with 0.9) and for children 6-11 years of age (3.0 compared with 2.7). The average number of def teeth per child was also about the same for black boys and girls 1-5 years of age (figure 1). No sex difference was observed in the average number of def teeth for black children 6-11 years of age.

The average number of def teeth per child did not differ by race for children 1-5 years of age. For children in the age category 6-11 years, however, the average number of def teeth per child was higher for white than for black children (2.8 to 2.1, respectively). White boys had higher averages at every single year of age than black boys. White girls also had higher def scores at every single year of age, except those 6 years of age, when compared with black girls. There was very little difference by sex in the average scores of any def component. The percent distribution of children 1-5 years of age by specified number of def teeth according to sex is shown in table 3. The number of primary teeth present is shown by age, race, and sex in table A.

Permanent teeth

Age.—Approximately 23.4 million U.S. children aged 6-11 years had an estimated 1.7 DMF teeth per

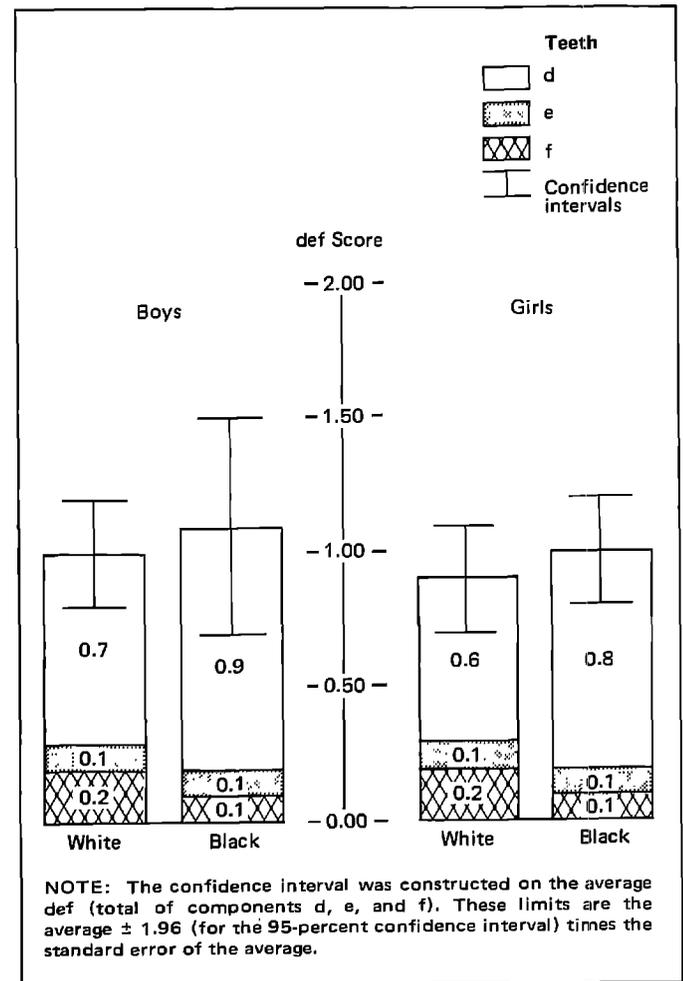


Figure 1. Average number of decayed (d), nonfunctional-carious (e), and filled (f) teeth with confidence intervals and average number of def components per child among children 1-5 years of age, by sex and race: United States, 1971-74

child. The average score is comprised of 0.7 decayed, 0.1 missing, and 0.8 filled permanent teeth. The average number of DMF teeth per child increased with age from a fraction of a tooth among children 6 years of age to about three teeth among those 11

Table A. Mean number of primary teeth per child among children 1-11 years of age, by race, sex, and age: United States, 1971-74

Age	All races ¹			White			Black		
	Both sexes	Boys	Girls	Both sexes	Boys	Girls	Both sexes	Boys	Girls
	Mean number of teeth								
All ages, 1-11 years	13.1	13.3	12.8	13.2	13.5	12.9	12.4	12.5	12.3
1 year	12.7	13.1	12.3	12.6	13.2	12.0	12.9	12.5	13.4
2 years	18.2	18.1	15.2	18.4	18.5	18.4	16.6	15.9	17.2
3 years	19.9	20.0	19.9	19.9	20.0	19.9	19.9	19.9	20.0
4 years	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	20.0
5 years	19.2	19.3	19.0	19.3	19.4	19.1	18.7	18.9	18.5
6 years	16.5	17.0	16.0	16.8	17.3	16.3	15.4	16.0	14.8
7 years	13.5	13.8	13.3	13.6	13.8	13.4	13.2	13.5	12.8
8 years	11.4	11.5	11.3	11.3	11.4	11.2	11.7	11.5	11.8
9 years	8.4	9.0	7.8	8.6	9.2	8.0	7.3	8.2	5.8
10 years	5.9	6.2	5.5	6.2	6.5	5.9	3.6	4.4	3.0
11 years	3.0	3.7	2.2	3.3	4.1	2.3	1.6	1.7	1.5

¹Includes data for "other races," which are not shown separately.

years of age (table 4 and figure 2). Missing permanent teeth were relatively few, adding only a small fraction to the DMF scores.

Table 5 shows the percent distribution of children by specified number of DMF and D, M, and F teeth. An estimated 45 percent of children aged 6-11 years had no DMF teeth, and about one-fourth had either one or two DMF teeth. Although the remaining children had three or more DMF teeth, relatively few—about 3 percent—had more than five DMF teeth. Additionally, 69 percent of all children aged 6-11 years had no untreated decayed permanent teeth in contrast to about 5 percent with four or more untreated decayed teeth. Approximately 92 percent of the children had no missing permanent teeth, and about 69 percent had no filled permanent teeth.

Among the 24.6 million U.S. youths aged 12-17 years, the estimated mean number of DMF teeth per person was 6.2 (table 6). The estimate consists of 1.8 decayed, 0.6 missing, and 3.7 filled permanent teeth. The average number of DMF teeth increased steadily with advancing age—3.8 for youths 12 years of age, compared with 8.7 for those 17 years of age. The more than twofold increase in the number of DMF teeth per person among youths reflects similar increases in all three DMF components—decayed, missing, and filled teeth. The D and F components are about twice as great for youths 17 years of age as for youths 12 years of age. The M component is more than three times as great for those 17 years of age as for those 12 years of age. The proportion of each component in the DMF index does not vary appreciably with age: between 25 and 36 percent of the average DMF count per person for every given age are D teeth, about 10 percent are M teeth, and about 60 percent are F teeth.

The percent distribution of youths aged 12-17 years with specified numbers of DMF teeth is shown according to sex in table 7.

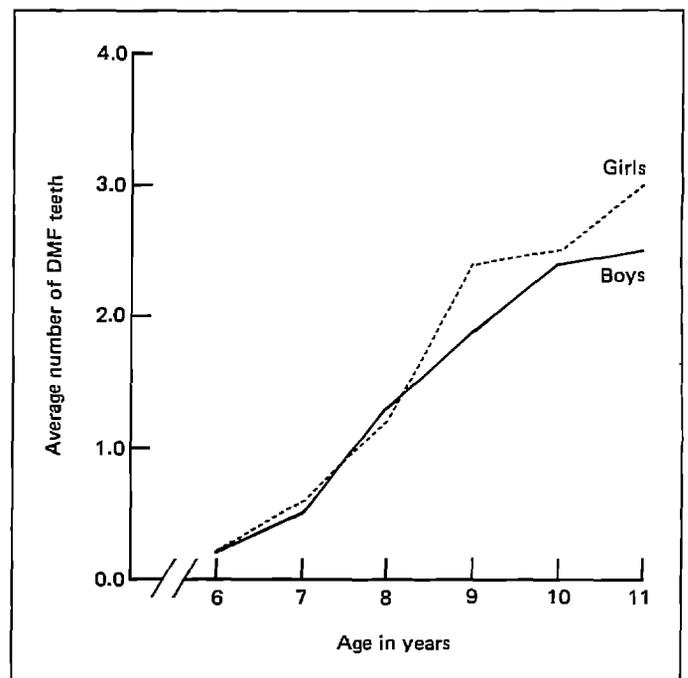


Figure 2. Average number of decayed, missing, and filled (DMF) teeth per child among children 6-11 years of age, by age and sex: United States, 1971-74

Several estimates in the table indicate that most youths visit their dentists in time to have any teeth affected by decay treated. For instance, about 68 percent of the youths had at least one filled tooth, and a little over one-third had as many as five or more. In addition, 46 percent had no untreated decayed permanent teeth.

On the other hand, other estimates in the table point out the failure of many youths either to receive dental care or to receive it as early as they should. First, about 28 percent of the youths had at least three untreated decayed teeth and 13 percent had five or more. Next, about 26 percent of the youths

had at least one tooth that was classified as missing because of caries. Finally, although only about one-tenth of all youths had never had a decayed permanent tooth, about one-third of all youths had no filled teeth. Therefore, about one out of every five youths has at least one tooth that needs filling or at least one that is classified as missing.

Dentulous adults aged 18-74 years averaged 16.9 DMF teeth per person (table 8). This DMF score consists of 1.4 decayed, 7.4 missing, and 8.1 filled teeth. The DMF teeth increased consistently with age from a low of 10.7 for the youngest group of men and women to a high of 22.2 for the oldest group.

An estimated 14.7 percent of the adult population aged 18-74 years have lost all of their permanent teeth. An additional 9.2 percent have lost all their upper or lower teeth (table 9). Tooth loss in an entire arch increases steadily with advancing age: Only about 4 percent of those 18-44 years of age have lost all their teeth and 6 percent have lost an entire arch, compared with about 45 percent and 15 percent, respectively, for those 65-74 years of age. More women than men 18-74 years of age have lost all their teeth—15.8 percent, compared with 13.3—and more women than men have an edentulous arch—10.2 percent, compared with 8 percent. Tables 10 and 11 present the significant differences in the percent of tooth loss by race.

The percent distribution of dentulous adults 18-74 years of age with specified numbers of DMF teeth and the components of the DMF index are shown according to sex in table 12.

Sex.—The average number of decayed, missing, and filled permanent teeth per child varied slightly by

sex among children aged 6-11 years (table 4). Girls on the average had more DMF teeth per child than boys of the same age. The average DMF for girls 6-11 years of age is 1.7, compared with 1.5 for boys 6-11 years of age.

The average number of erupted permanent teeth per child for children aged 6-11 years is shown by age, race, and sex in table B. At every given year of age boys had fewer erupted teeth than girls.

Girls had more DMF teeth per 100 erupted permanent teeth than boys (table 13). Of every 100 erupted permanent teeth among girls aged 6-11 years an estimated 12.1 were decayed, missing, and filled; the proportion among boys was 11.6 per 100 teeth.

The average number of DMF teeth per person differs according to the sex of youths 12-17 years of age (table 6 and figure 3). The overall index for black males 12-17 years of age was not significantly lower than the corresponding counts for black females. The average DMF score for all males aged 12-17 years and the score for white males aged 12-17 years were significantly lower than the DMF scores for corresponding females. The average DMF counts for males of all races at 14, 15, and 17 years of age were significantly lower than the corresponding counts for females at those ages.

Among youths, the higher DMF counts for females can be attributed largely to the differences in the number of missing and filled teeth according to sex (table 6). The differences in the average scores for both the M and F component were statistically significant.

Estimates of the average number of erupted permanent teeth per youth are presented in table C,

Table B. Average number of erupted permanent teeth per child among children 6-11 years of age, by race, sex, and age, with standard errors of the estimates: United States, 1971-74

Age	All races ¹			White			Black		
	Both sexes	Boys	Girls	Both sexes	Boys	Girls	Both sexes	Boys	Girls
	Average number of teeth								
All ages, 6-11 years	13.6	13.2	14.0	13.4	13.0	13.8	14.7	14.1	15.2
6 years	5.0	4.6	5.4	4.7	4.2	5.0	6.5	6.1	7.0
7 years	9.1	8.8	9.3	9.0	8.8	9.2	9.5	9.0	10.0
8 years	11.6	11.6	11.7	11.6	11.5	11.7	11.9	12.0	11.7
9 years	14.5	13.9	15.1	14.3	13.8	14.8	15.4	14.3	17.0
10 years	17.2	16.8	17.6	16.9	16.5	17.2	19.6	19.0	20.1
11 years	22.0	20.9	23.1	21.5	20.4	22.8	24.3	23.7	24.9
	Standard error								
All ages, 6-11 years	0.10	0.15	0.18	0.11	0.17	0.20	0.25	0.35	0.52
6 years	0.17	0.33	0.31	0.23	0.41	0.40	0.46	0.57	0.69
7 years	0.19	0.28	0.27	0.21	0.29	0.29	0.47	0.87	0.41
8 years	0.05	0.07	0.07	0.06	0.08	0.08	0.06	0.01	0.10
9 years	0.21	0.32	0.26	0.22	0.36	0.30	0.38	0.45	0.72
10 years	0.33	0.41	0.43	0.35	0.41	0.47	0.62	1.03	0.96
11 years	0.32	0.43	0.46	0.37	0.50	0.50	0.78	1.12	1.04

¹Includes data for "other races," which are not shown separately.

by age, race, and sex. The overall average for youths was fractionally but significantly lower for white males (27.2) than for white females (27.6) and for black males (27.6) than for black females (28.0). The higher estimates for females occur in ages 12-14 and 16 years.

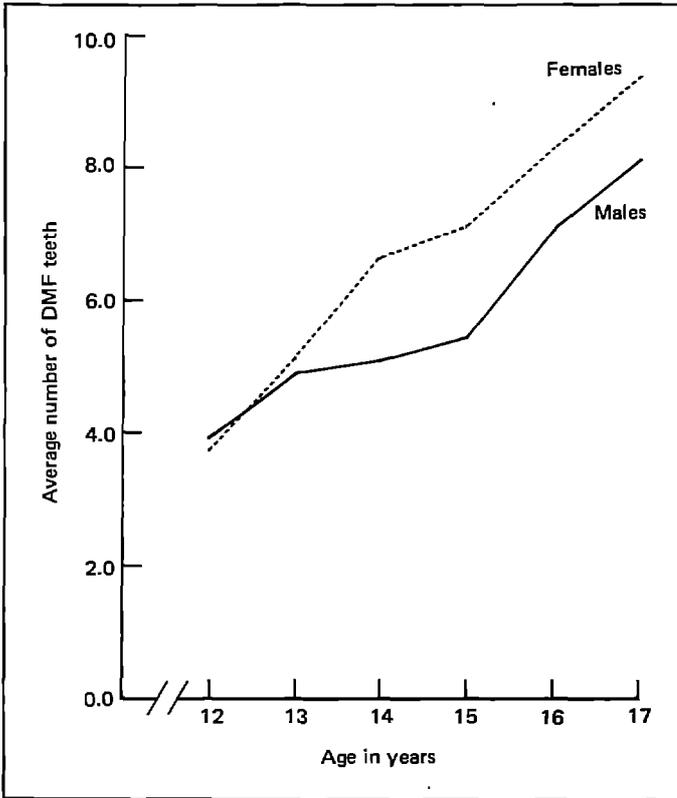


Figure 3. Average number of decayed, missing, and filled (DMF) teeth per person among youths 12-17 years of age, by age and sex: United States, 1971-74

Among those 12-17 years of age, females had more DMF teeth per 100 erupted permanent teeth than males—24.2 and 20.9, respectively (table 14).

The average number of DMF teeth per person among dentulous adults differs according to sex. Women without exception averaged higher DMF counts than men of the same age (table 8 and figure 4). The differences were statistically significant for most age groups. The exceptions were young adults aged 18-24 years and adults aged 55-64 years.

Women had more missing and filled teeth than men. The differences in the averages for both components were statistically significant. Men had more decayed teeth than women. This difference, although fractionally small, was also statistically significant. Adding edentulous persons to the DMF index does not reverse the trends observed for age or sex (table 15).

Race.—Table 4 and figure 5 reveal no significant differences in the number of DMF teeth by race for children 6-11 years of age. The slight observed difference can be attributed to the larger number of decayed and missing teeth per child among black children.

Differences in the average number of DMF teeth per youth 12-17 years of age show little consistent association with race (table 6). Average DMF counts for white males except those 13 and 14 years of age were higher than the counts for black males of the same age and sex. The estimates for white females were higher than those of black females at ages 13, 16, and 17 years. Differences between estimates of the DMF components for white and black youths occur consistently and in some cases are statistically significant (figure 6). Although white youths had

Table C. Average number of erupted permanent teeth per person among youths 12-17 years of age, by race, sex, and age, with standard errors of the estimates: United States, 1971-74

Age	All races ¹			White			Black		
	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females
Average number of teeth									
All ages, 12-17 years	27.5	27.3	27.7	27.4	27.2	27.6	27.8	27.6	28.0
12 years	25.1	24.6	25.8	25.1	24.6	25.8	25.2	24.9	25.6
13 years	27.0	26.8	27.2	26.9	26.7	27.1	27.6	27.3	27.9
14 years	27.9	27.8	28.0	27.8	27.8	27.9	28.1	27.8	28.3
15 years	28.0	28.1	27.9	27.9	28.0	27.8	28.1	28.0	28.2
16 years	28.3	28.1	28.4	28.2	28.0	28.3	28.9	28.7	29.1
17 years	28.7	28.8	28.7	28.6	28.7	28.6	29.5	29.6	29.3
Standard error									
All ages, 12-17 years	0.05	0.09	0.06	0.06	0.10	0.06	0.13	0.23	0.13
12 years	0.26	0.37	0.33	0.29	0.43	0.35	0.60	0.87	0.62
13 years	0.13	0.24	0.14	0.15	0.27	0.16	0.16	0.22	0.21
14 years	0.06	0.08	0.08	0.07	0.11	0.08	0.20	0.20	0.31
15 years	0.08	0.08	0.13	0.09	0.06	0.16	0.14	0.22	0.23
16 years	0.08	0.12	0.03	0.08	0.12	0.08	0.25	0.38	0.28
17 years	0.09	0.12	0.11	0.09	0.11	0.11	0.27	0.46	0.40

¹Includes data for "other races," which are not shown separately.

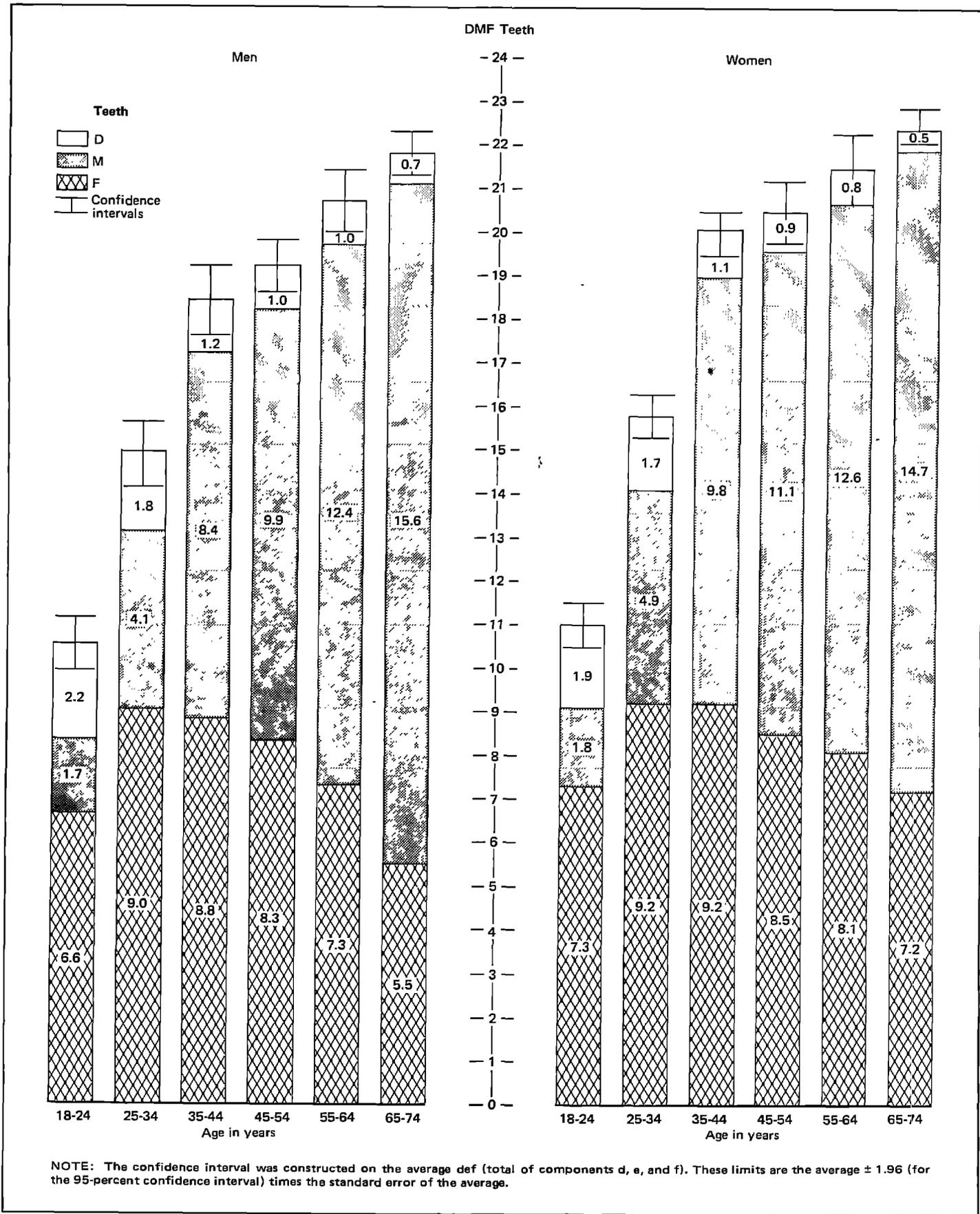


Figure 4. Average number of decayed (D), missing (M), and filled (F) teeth among dentulous adults 18-74 years of age, by age and sex, with confidence intervals: United States, 1971-74

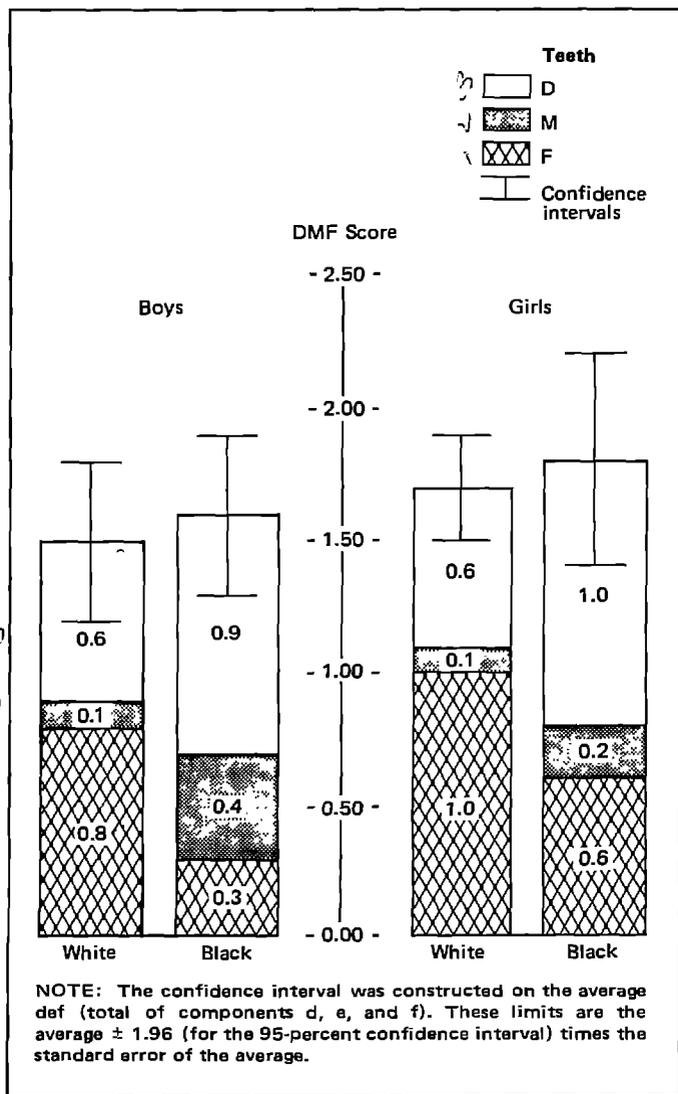


Figure 5. Average number of decayed (D), missing (M), and filled (F) teeth with confidence intervals and average number of DMF components per child among children 6-11 years of age, by sex and race: United States, 1971-74

more filled teeth, black youths continued to have about twice as many decayed and missing teeth as white youths had.

The DMF counts of white adults were consistently higher than those for black adults. The average number for white adults was 17.5, compared with 13.3 for black adults (table 8). The observed difference was statistically significant. This difference can be attributed to the fact that white adults had four times as many filled teeth as black adults—8.9 compared with 2.3—although black persons had more decayed and missing teeth.

DMF teeth by income and education.—The average number of DMF teeth per child aged 6-11 years was not associated with levels of yearly family income (table 16). For example, among children of all races and for both sexes, families with yearly incomes of less than \$7,000 had the same average

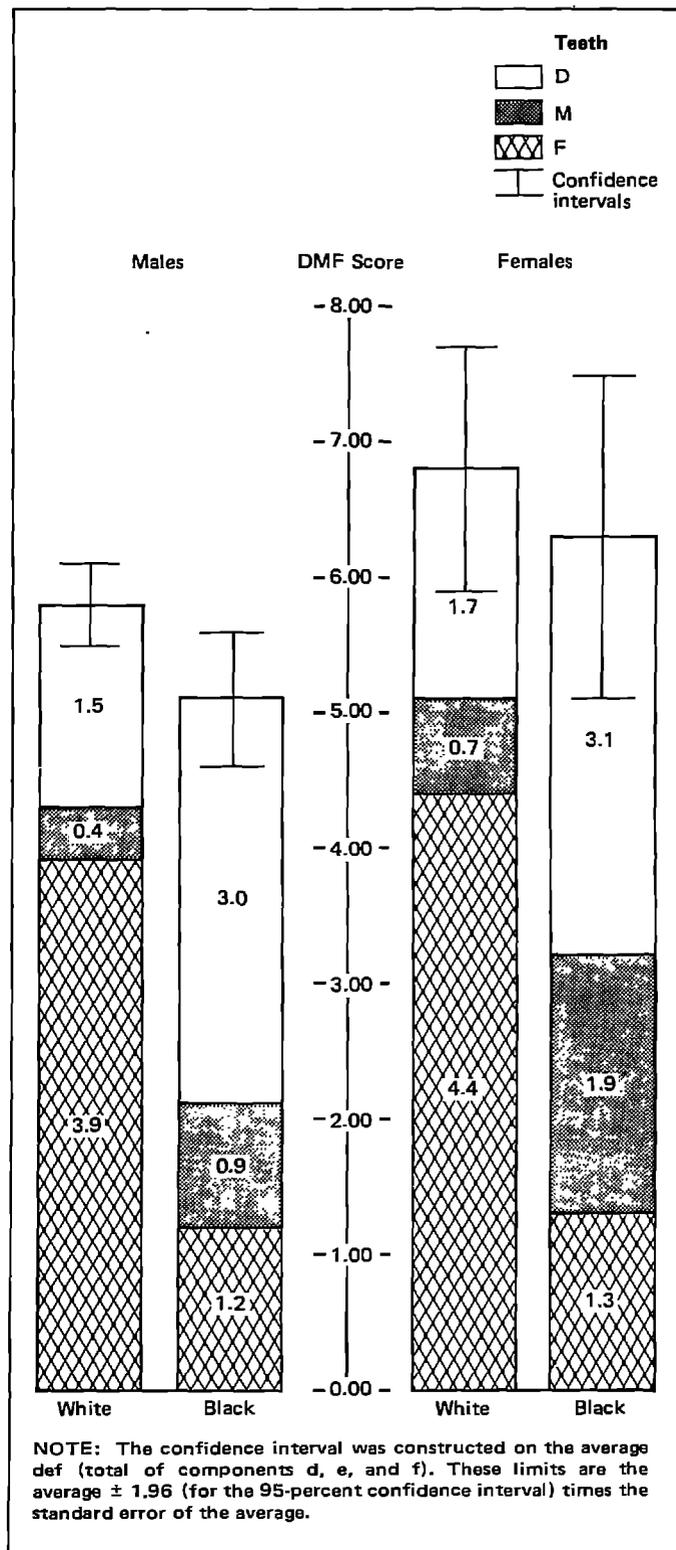


Figure 6. Average number of decayed (D), missing (M), and filled (F) teeth with confidence intervals and average number of DMF components per person among youths 12-17 years of age, by sex and race: United States, 1971-74

number of DMF teeth as families with incomes of \$7,000 or more.

Among children 6-11 years of age whose parents attained the same level of education (table 17), the average number of DMF teeth per child for girls was

slightly greater than for boys through the first 11 years of completed parental education. For those children whose parents had a high school education or more, differences between boys and girls in this measure of dental health were generally negligible. There was no significant difference in the average number of filled permanent teeth per child among white children across the various levels of parental education.

The estimates in tables 18 and 19 did not indicate an association of DMF teeth with family income or with the educational levels of the parents of youths aged 12-17 years. Estimates did, however, differ slightly but consistently by race and sex of the youths. On the average within each level of income, white females had slightly higher DMF counts than white males. Black females had slightly higher average DMF counts in all but one income category when compared with black males. Within all but two levels of income, white males had somewhat higher counts than black males and white females had slightly higher counts than black females. Within all levels of education mean DMF counts for white females consistently exceeded those for white males. Black females had slightly higher average counts than black males across all but two levels of educational attainment. No consistent pattern by race was observed for educational levels.

A significant association of DMF components with income and education was found among adults (tables 20 and 21). The average number of filled teeth per person increased with level of education, while the average of M and to a lesser extent D teeth decreased. Adults with the most education had higher

DMF scores. Within just about every level of education and at every level of income white men had higher DMF scores than black men and white women had higher DMF scores than black women.

Geographic region of residence.—Estimates of the average number of DMF teeth per child by sex, race, and region are found in table 22. Children 6-11 years of age living in the Northeast had slightly higher DMF counts per child than those living elsewhere. Children living in the West had the lowest counts, children in the South had more decayed and missing teeth than those in other regions. These children also had fewer filled teeth than those in other regions.

Table 23 contains estimates of the average number of DMF teeth per person for youths aged 12-17 years by race, sex, and region. Youths living in the Northeast had significantly higher DMF counts than those living elsewhere. The average number of DMF teeth per person among white and black youths living in regions other than the Northeast did not differ significantly.

The average numbers of D, M, and F teeth per youth by region are also found in table 23. Youths of all races living in the South had higher numbers of D and M teeth than those living elsewhere and a significantly higher number than those living in the West. Youths in the Northeast had significantly higher estimates of F teeth than those living elsewhere.

Adults residing in the Northeast consistently had significantly higher DMF estimates than those living in other regions (table 24). Those living in the West had consistently lower DMF estimates than those living elsewhere.

Comparison with previous national surveys

The first three National Health Examination Surveys in 1960-70 that were briefly described earlier and the succeeding National Health and Nutrition Examination Survey in 1971-74, whose dental findings are presented in this report, were designed to provide information from highly representative samples of the U.S. civilian noninstitutionalized population. The dental findings collected by all four surveys consisted for the most part of counts of decayed, missing, and filled teeth and indexes for evaluating the prevalence and severity of periodontal disease and the status of oral hygiene. In addition, the occlusion of the teeth of children 6-11 years of age was assessed during the 1963-65 survey, of youths 12-17 years of age during the 1966-70 survey, and of children and youths 6-21 years of age during the 1971-74 survey.

As plans were being considered in 1959 for the first survey's dental examination it was realized that examining and later reexamining identical subgroups of the U.S. civilian noninstitutionalized population in a series of continuing surveys would enable the National Center for Health Statistics (NCHS) to measure the changes in the prevalence and the outcome of disease on a national scale (e.g., whether an increasing proportion of decayed teeth were being treated). As a result, it seemed especially desirable to collect the findings of the succession of surveys that were being anticipated in as standardized a way as possible. The dentists selected to examine during the first survey, and in the ones that followed it, were, therefore, trained to follow the same procedures throughout as well as the same definitions and criteria. In addition, these dentists were assessed by the same two senior dentists and retrained and reassessed by them from time to time. Hence, the surveys' findings are as comparable as possible. However, despite these precautionary measures, it was realized that the surveys' findings would reflect some degree of examiner variability and the periodontal disease and oral hygiene findings were more

susceptible to observer variability than counts of decayed, missing, and filled teeth.

The anticipated return to previously examined segments of the U.S. civilian noninstitutionalized population took place in 1971 when NHANES I began. That survey's sample included persons aged 6-74 years—the same age groups examined in one or another of the earlier surveys. The intervals between the midpoint of NHANES I (1972) and those of the survey of adults (1961), of children (1965), and of youths (1968) were about 11, 7, and 4 years, respectively.

During the last three decades a number of preventive measures aimed at reducing the incidence of dental decay have met with growing acceptance by the American public. Foremost among them is the adjustment of the fluoride content of community water supplies (figure 7). Since 1954, when Grand Rapids, Michigan, became the first community to fluoridate its water supply, the number of Americans living in communities with fluoridated water has risen to more than 94 million persons (1975).⁶ This number does not include 10.7 million persons living in areas where fluoride occurs naturally in the water. Other dental health practices and procedures that have affected the teeth of millions include the following: the prescribing of fluoride tablets by dentists and pediatricians; topical fluoride applications; the use of dentifrices containing fluorides; and most recently, the supervised and unsupervised use of rinses containing fluoride.

What has been the effect of these preventive measures on the dental health of Americans? Do the findings of the successive nationwide surveys shed any light on whether the incidence of tooth decay in the U.S. population at large is indeed decreasing? Is it still too early to expect the effect of fluoridation to affect the national estimates of the mean DMF counts of adults?

As the estimates in table D show, the average DMF count per person for children 6-11 years of age

and youths 12-17 years of age did not change significantly during the periods from National Health Examination Survey (NHES) II (1963-65) and NHES III (1966-70) to NHANES I. However, the mean counts for the surveys are quite low, which probably reflects the reduced incidence of decay that has occurred during the past few decades. Unfortunately, no comparable national counts of DMF teeth exist from surveys that were completed before community water fluoridation began to significantly lower the incidence of decay. Only the findings of surveys conducted on children in fluoridated communities can now give some indication of what may have occurred throughout the Nation. For example, the

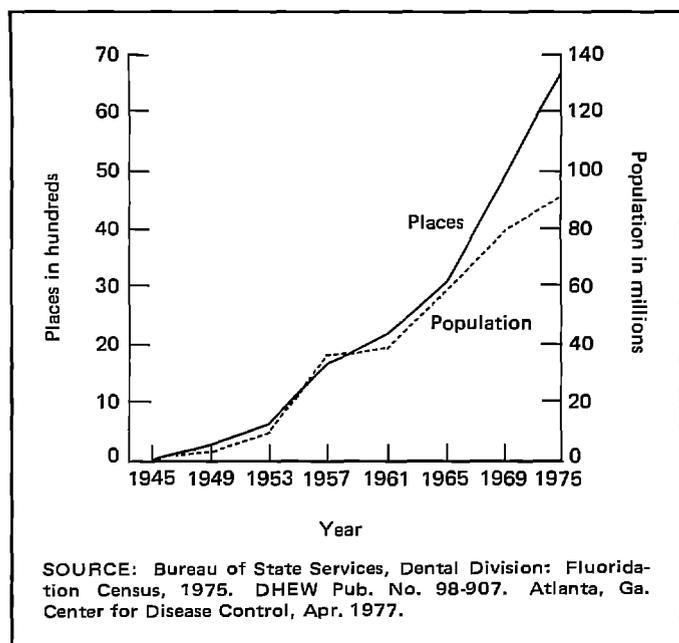


Figure 7. Number of places and population served by adjusted fluoridation: United States, 1945-75

1964 findings on Illinois youths 13-17 years of age reported that those who drank fluoride-deficient water all their lives averaged 9.0 DMF teeth. Those, on the other hand, who drank only fluoridated water averaged 4.2 DMF teeth.⁷ It is believed that the average reduction in the number of decayed teeth resulting from drinking fluoridated water is about 50 percent.⁸

The DMF counts compiled by Suomi in 1978⁹ from selected surveys over the preceding 40 years probably give a rough indication of the extent of the recent reduction in tooth decay experienced by children 6-16 years of age. The average number of DMF teeth per person are plotted in figure 8 for children in fluoridated and nonfluoridated areas. This figure includes comparable estimates from NHES II and III.

For children 6-9 years of age, NHES estimates are about the same as those compiled from selected surveys conducted in fluoridated areas. The NHES estimates for older children are between, but slightly closer to those from fluoridated areas than to those from nonfluoridated areas. About one-half of the 40 primary sampling units in the NHES II and III samples had fluoridated water supplies at the time of the surveys.

The component counts of the NHANES DMF estimates show no important changes from those of the preceding surveys that would be considered clinically significant. Of the estimates being compared, the average number of decayed teeth left unfilled showed little or no change. This finding was also true for both filled and extracted or nonfunctional-carious teeth.

If the effects of water fluoridation and other means of reducing decay appear at all in the DMF findings of the national surveys, one would expect to see it in the DMF counts of young adults 18-24 years of age. Those persons in this age group examined

Table D. Average number of decayed (D), missing (M), and filled (F) permanent teeth per person among children 6-11 years of age and youths 12-17 years of age, by sex and age: United States, 1963-65 (children), 1966-70 (youths), and 1971-74

Sex and age	DMF teeth		D teeth		M teeth		F teeth	
	1963-65	1971-74	1963-65	1971-74	1963-65	1971-74	1963-65	1971-74
Average number of teeth affected per person								
Both sexes, 6-11 years	1.4	1.6	0.5	0.7	0.1	0.1	0.8	0.8
Boys, 6-11 years	1.2	1.5	0.4	0.7	0.1	0.2	0.7	0.7
Girls, 6-11 years	1.5	1.7	0.5	0.7	0.1	0.1	0.9	0.9
Average number of teeth affected per person								
Both sexes, 12-17 years	6.2	6.2	1.7	1.8	0.7	0.7	3.8	3.7
Males, 12-17 years	5.8	5.7	1.7	1.7	0.7	0.5	3.5	3.5
Females, 12-17 years	6.5	6.7	1.7	1.9	0.7	0.9	4.1	3.9

NOTE: Filled teeth include only teeth with satisfactory fillings. Decayed teeth include not only teeth with caries but also filled teeth with carious lesions or defective fillings. Missing teeth include both missing and nonfunctional teeth. DMF is the total of these 3 categories.

during 1960-62 were born in 1942-44, before communities had begun to fluoridate their water supplies. By 1953, when this age group was 11 or 12 years of age, only about 10 million Americans were drinking fluoridated water. Because all permanent teeth except third molars are usually erupted by 12 years of age, the teeth of very few of even the youngest adults examined in the 1960-62 survey would be expected to show an increased resistance to decay due to fluoridated water.

On the other hand, young adults 18 years of age examined during the NHANES I were born in the years 1953-56, a 4-year interval when the population who had access to fluoridated water systems increased by 15-25 million persons. During the decade

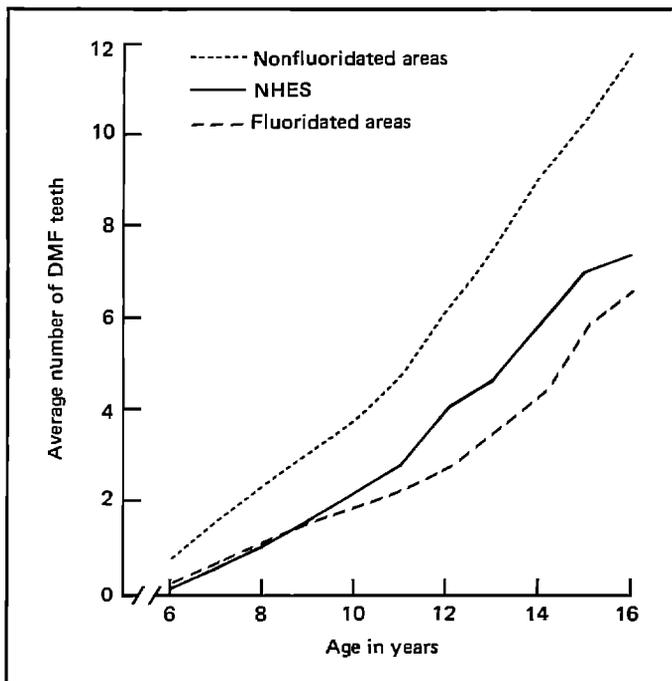


Figure 8. Average number of decayed, missing, and filled (DMF) permanent teeth per person among children and youths 6-16 years of age living in areas with water supplies fluoridated and nonfluoridated⁹ and estimates for all U.S. children from the 1963-70 National Health Examination Survey (NHES), by age.

that ended in 1965, the population who had access to fluoridated water systems had reached almost 60 million persons. Therefore, while more young adults examined in NHANES I could have had access to fluoridated water systems as the enamel of their permanent teeth was being formed, there was still a majority of the population who did not have access to fluoridated water systems.

The average number of DMF teeth per person and the component counts are shown in table E for men and women 18-34 years of age in 1960-62 and 1971-74. In the earlier survey young men and women aged 18-24 years had about two DMF teeth more than those of comparable age in the later survey. For men and women 25-34 years of age, however, the DMF estimates of both surveys are about the same.

The 1971-74 survey estimates for both young men and women aged 18-24 years were 17 percent under those of the 1960-62 survey. The reduction was due almost entirely to the smaller number of teeth classified as "missing." Because most of the teeth classified as "missing" have been extracted, counts of M teeth are subject to very little examiner error. It seems reasonable to assume, therefore, that the incidence of tooth decay in U.S. young adults was lower in 1971-74 than in 1960-62.

The DMF and M estimates in table E include teeth missing not only because of decay but also for other reasons such as accidents and orthodontic extractions, which are excluded from other tables in this report. As a result, the NHANES I estimates in table E range from 0.6 to 1.1 higher than comparable estimates either cited in the text or shown in other tables. All missing teeth are added to the NHANES I estimates because teeth missing for reasons other than decay cannot be subtracted from the NHES I estimates.

Many older adults lose a significant number of their teeth because of bone loss, due to advanced periodontal disease, and prosthetic considerations. Therefore, the count of DMF teeth after 35 years of age is not an accurate record of the number of teeth attacked by decay. The DMF components, on the

Table E. Average number of decayed (D), missing (M), and filled (F) permanent teeth per person among adults 18-34 years of age, by sex and age: United States, 1960-62 (adults), and 1971-74

Sex and age	DMF teeth		D teeth		M teeth		F teeth	
	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74
Men								
Average number of teeth affected per person								
18-24 years	13.4	11.1	2.2	2.2	4.6	2.3	6.6	6.6
25-34 years	15.8	15.8	1.8	1.8	6.2	5.0	7.8	9.0
Women								
18-24 years	14.1	11.7	2.0	1.9	5.0	2.7	7.2	7.3
25-34 years	17.5	16.9	1.6	1.7	7.5	6.0	8.4	9.2

NOTE: Filled teeth include only teeth with satisfactory fillings. Decayed teeth include not only teeth with caries but also filled teeth with carious lesions or defective fillings. Missing teeth include both missing and nonfunctional teeth. DMF is the total of these 3 categories.

other hand, may indicate changes or trends in the amount and type of dental services that have occurred during the intervals between surveys.

An important improvement in the dental health of older adults has occurred throughout the Nation during the past two decades: Americans can now expect to keep their teeth longer than in previous years. For example, in 1957-58, the average number of years young adults 20 years of age with natural teeth could expect to live before losing their last teeth was 39.7. In 1971, the expected dentulous lifetime of young adults 20 years of age increased to 42 years.¹⁰ These averages are based on findings from two surveys conducted by the National Health Interview Survey (NHIS) on probability samples of U.S. households.

The trend toward keeping one's teeth longer is also reflected in the differences between the estimated percent of edentulous persons in 1960-62 and 1971-74 (table F). Notably, the percent based on the NHANES I findings differ but little from those based on the 1971 NHIS findings.

The 1960-62 and 1971-74 DMF findings are

Table F. Percent of edentulous persons among adults 35-74 years of age, by sex and age: United States, 1960-62 and 1971-74

Age	1960-62	1971-74
	Percent of edentulous persons	
All ages, 35-74 years	24.2	23.1
35-44 years	8.0	9.0
45-54 years	20.0	16.0
55-64 years	36.3	33.2
65-74 years	49.4	45.5

shown in table G. The average number of decayed, missing, and filled teeth in adults 35-74 years of age was about one tooth higher in the most recent survey than in the earlier one. The number of teeth that older adults had had filled increased during the years since the first NHES—averaging about two more for men and one more for women. The estimates of D and M teeth for the two surveys showed little change.

In summary, a comparison of the average DMF counts of U.S. children 6-11 years of age examined in surveys about 7 years apart and of U.S. youths 12-17 years of age examined about 4 years apart showed that no clinically important change had occurred in the prevalence of tooth decay during the intervals between the surveys. However, indications of a recent improvement in the dental health of U.S. adults were found. The percent of those 45-74 years of age who were edentulous was about 3 or 4 percent less in 1971-74 than in 1960-62. In addition, adults 34-74 years of age who had not lost all their teeth averaged about 2 filled teeth more in the later survey than in the earlier one. Finally, the average DMF count for young adults 18-24 years of age was about 2 teeth lower in 1971-74 than in 1960-62. The intensive effort that was made during the last two decades has now begun to appear in the U.S. population at large.

The DMF index is a good indicator of the prevalence of dental caries; however, it does not indicate the need for other kinds of dental care. The Institute of Medicine (IOM) recently published a report¹² outlining public policy options for better dental health. The IOM study includes estimates from the NHANES conducted in 1971-74 as well as data from other National Health Examination and National Health Interview Surveys.

Table G. Average number of decayed (D), missing (M), and filled (F) permanent teeth per person, among adults 35-74 years of age, by sex and age: United States, 1960-62 and 1971-74

Sex and age	DMF teeth		D teeth		M teeth		F teeth	
	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74
	Average number of affected teeth per person							
Both sexes, 35-74 years	19.1	20.2	1.2	1.0	11.2	11.0	6.7	8.2
Men								
35-74 years	18.5	19.5	1.2	1.0	11.2	10.5	6.1	8.0
35-44 years	17.2	18.4	1.3	1.2	8.1	8.4	7.8	8.8
45-54 years	18.0	19.2	1.3	1.0	10.9	9.9	5.8	8.3
55-64 years	20.4	20.7	1.1	1.0	14.7	12.4	4.6	7.3
65-74 years	22.3	21.8	0.8	0.7	18.1	15.6	3.5	5.5
Women								
35-74 years	19.7	20.8	1.1	0.9	11.3	11.4	7.3	8.5
35-44 years	18.8	20.0	1.3	1.1	9.2	9.8	8.3	9.2
45-54 years	19.6	20.5	1.1	0.9	11.5	11.1	7.0	8.5
55-64 years	21.9	21.5	0.8	0.8	14.8	12.6	6.3	8.1
65-74 years	22.8	22.5	0.5	0.5	16.8	14.7	5.5	7.2

NOTE: Filled teeth include only teeth with satisfactory fillings. Decayed teeth include not only teeth with caries but also filled teeth with carious lesions or defective fillings. Missing teeth include both missing and nonfunctional teeth. DMF is the total of these 3 categories.

Discussion

The estimates presented in this report give statistical data concerning the prevalence and distribution of decayed, missing, and filled teeth among the U.S. civilian noninstitutionalized population 1-74 years of age. The dental component in this survey, NHANES I, upon which the national estimates are based is the fourth of its kind conducted by the National Center for Health Statistics. The NHANES I data were collected over a 3-year period from April 1971 to June 1974. Essentially the same procedures as those in the previous three National Health Examination Surveys were used. The same two senior dentists trained and sometimes retrained the other eight dentists who collected most of the dental findings. Measures were taken to control the amount of interexaminer variability and to obtain findings comparable to previous surveys.

The average number of DMF teeth per person for the U.S. civilian noninstitutionalized population 6-44 years of age is plotted by age in figure 9. The average number of teeth per person affected was higher at each age from 6 through 27 years. The rising trend is observed to continue during ages 27-44 years, but the rate of increase is slower than in the earlier ages. Estimates for adults over 44 years of age are not shown because of the large proportion of teeth lost either because of periodontal disease or other reasons.

The DMF components are also plotted by age in figure 9. The average number of decayed teeth per person follows the same pattern noted in the earlier surveys, which is a slight increase during childhood and adolescence, and then a leveling off around 14 years of age. This pattern lasts through 25 years of age after which the D counts start to decline.

The M counts (average number of missing teeth per person) increase slowly during ages 6-17 years, but from then on the increase is more rapid. The M component contains only third molars that had been extracted because of decay. A difference in the data from the initial NHES among adults and the later NHANES I was evident because in NHES I the M component included third molars that were absent for any reason.

The F component (average number of filled teeth per person) also shows a sharp upward climb until about 21 years of age after which it begins to slow. At about 35 years of age, the number of filled teeth per person begins to decline.

Continuity of the trends in DMF teeth between the surveys, as evidenced in NHANES I, demonstrates the uniformity of the dental examinations. Many of the trends and differences noted were associated with the same demographic variables throughout the population. However, there were findings that did not prevail consistently during childhood, adolescence, and adulthood. These conditions were noted earlier in the text.

Because dental caries are a lifelong threat to dental health, the estimates of decayed, missing, and filled teeth are important. The differences in the prevalence of tooth decay as measured by DMF teeth demonstrate the need for dental care by various demographic characteristics. There was no significant association except by age. However, associations of filled teeth with increasing income, and decayed and extracted teeth with decreasing income are important indicators of the levels of dental care throughout the population.

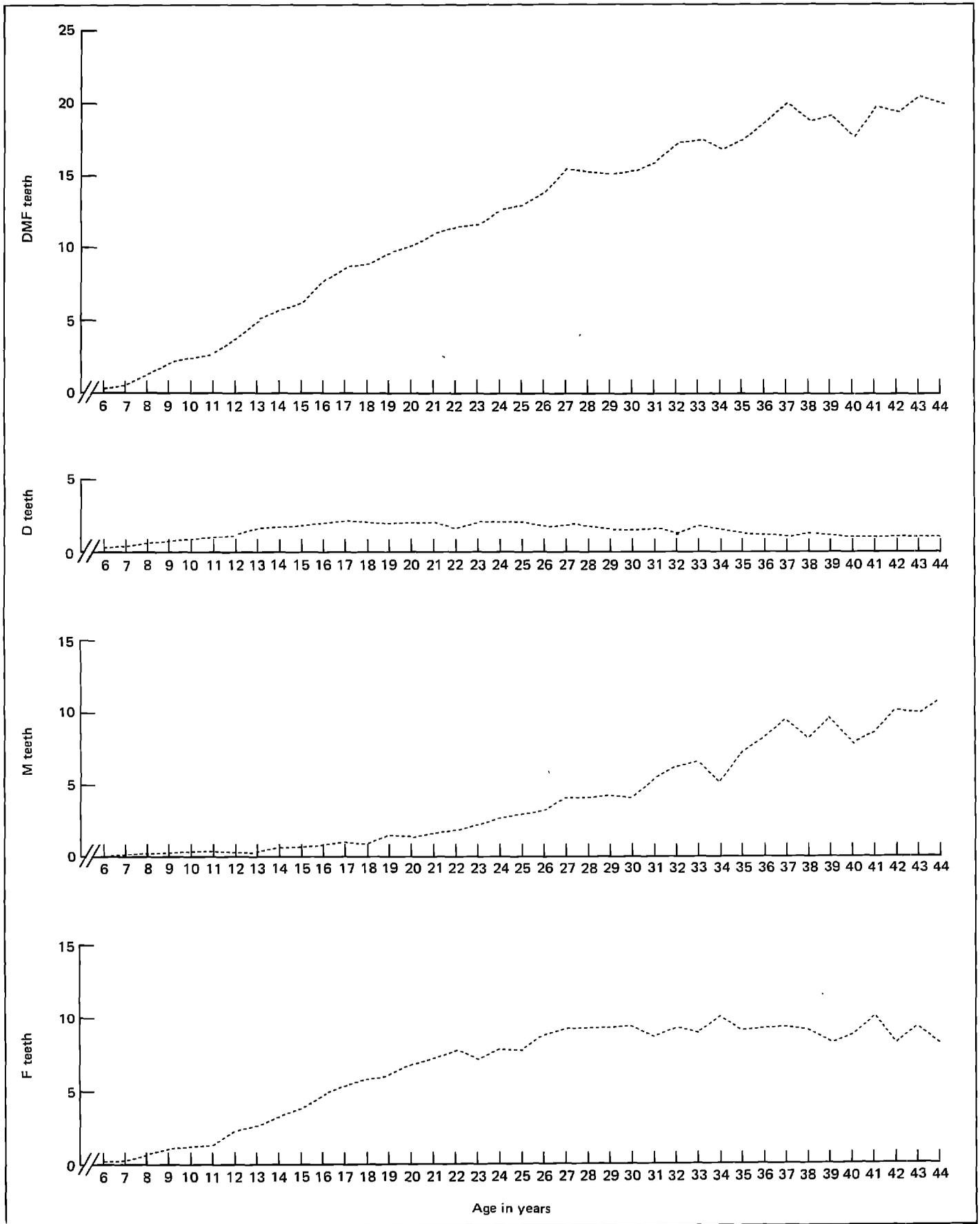


Figure 9. Average number of DMF, decayed (D), missing (M), and filled (F) teeth per person among persons 6-44 years of age, by age: United States, 1971-74

Summary

Children 1-5 years of age in the United States averaged one decayed, nonfunctional-carious, and filled primary tooth per child as estimated from dental examination findings in the National Health and Nutrition Examination Survey of 1971-74. There were increases with advancing age among the pre-school age group in each of the components of the def index. The average number of def teeth for children 6-11 years of age was 2.7. However, within the age group 6-11 years there were decreases with advancing age in each of the components of the def index. The decrease in the older age group was related to the decrease in the number of primary teeth at risk to decay.

Children 6-11 years of age averaged 1.7 decayed, missing, and filled permanent teeth per child. An estimated 31 percent of these children also had at least one untreated decayed permanent tooth. Youths 12-17 years of age averaged 6.2 decayed, missing, and filled permanent teeth per person. An estimated 54 percent of these youths had at least one untreated decayed permanent tooth. Among dentulous adults 18-74 years of age, there were on the average 16.9 decayed, missing, and filled permanent teeth per person.

The estimates are based on standardized dental examinations conducted during 1971-74 on 20,749 persons 1-74 years of age. These persons were from the probability sample selected to represent the noninstitutionalized civilian population of those ages who lived in the United States at that time. There were observed differences in the prevalence of decayed, missing, and filled permanent teeth among persons 6-74 years of age according to their sex. Both white and black males 6-17 years of age were observed to have lower DMF counts per person than females of the same race. The DMF index for males 6-11 years of age was 1.5, whereas that for females of comparable age was 1.7. Comparing the DMF index for youths 12-17 years of age, males averaged 5.7 and females averaged 6.7. Among dentulous adults 18-74

years of age, the comparison between the sexes was 16.4 among men and 17.4 among women.

The average number of decayed, missing, and filled permanent teeth also differed by race. Among those persons 18-74 years of age, white persons had significantly higher DMF indexes than black persons. Among youths 12-17 years of age, the difference between scores, although not statistically significant, were higher. Black and white children 6-11 years of age had about the same average number of DMF teeth (1.7 and 1.6, respectively). White children, however, had about twice as many F teeth per child as black children (0.9 and 0.5, respectively) and fewer D (0.6 and 0.9, respectively) and M (0.1 and 0.3, respectively) teeth.

White youths 12-17 years of age had about four times as many F teeth per person as black youths (4.1 and 1.3, respectively). White persons 18-74 years of age also averaged about four times as many F teeth per person as black persons (8.9 and 2.3, respectively). White youths had about half as many D (1.6 compared with 3.1) and M (0.6 compared with 1.4) teeth as black youths. White adults had about half as many D teeth per person as black adults, but only about one M tooth fewer.

The number of decayed, missing, and filled permanent teeth was not associated with either family income or education or, in the case of those 6-17 years of age, with the parent's education. The components of the DMF index, however, were associated with these variables.

Persons 6-74 years of age living in the Northeast had higher DMF counts than those living in the other regions. The differences, however, were not statistically significant. The average component scores also showed some regional variations.

There were no clinically important changes in the prevalence of tooth decay during the intervals between the earlier surveys of children in 1963-65 and youths in 1966-70 when compared with the same age groups in the 1971-74 survey.

References

- ¹National Center for Health Statistics: Plan and operation of the Health and Nutrition Examination Survey: United States, 1971-1973, by H. W. Miller. *Vital and Health Statistics*. Series 1-No. 10a. DHEW Pub. No. (HRA) 79-1310. Health Resources Administration. Washington. U.S. Government Printing Office, Feb. 1973.
- ²National Center for Health Statistics: Plan and operation of the Health and Nutrition Examination Survey: United States, 1971-73, by H. W. Miller. *Vital and Health Statistics*. Series 1-No. 10b. DHEW Pub. No. (HRA) 77-1310. Health Resources Administration. Washington. U.S. Government Printing Office, Jan. 1977.
- ³National Center for Health Statistics: Decayed, missing, and filled teeth among children: United States, by J. E. Kelly and J. V. Scanlon. *Vital and Health Statistics*. Series 11-No. 106. DHEW Pub. No. (HSM) 72-1003. Health Services and Mental Health Administration. Washington. U.S. Government Printing Office, Aug. 1971.
- ⁴National Center for Health Statistics: Decayed, missing, and filled teeth among youths 12-17 years: United States, by J. E. Kelly and C. R. Harvey. *Vital and Health Statistics*. Series 11-No. 144. DHEW Pub. No. (HRA) 75-1626. Health Resources Administration. Washington. U.S. Government Printing Office, Oct. 1974.
- ⁵National Center for Health Statistics: Decayed, missing, and filled teeth in adults: United States, 1960-1962, by J. E. Kelly, L. E. Van Kirk, Jr., and C. C. Garst. *Vital and Health Statistics*. Series 11-No. 23. DHEW Pub. No. (HRA) 74-1278. Health Resources Administration. Washington. U.S. Government Printing Office, Aug. 1973.
- ⁶Bureau of State Services, Dental Division: *Fluoridation Census, 1975*. DHEW Pub. No. 98-907. Atlanta, Ga. Center for Disease Control, Apr. 1977.
- ⁷Englander, H. R.: Dental caries experience of teen-aged children who consumed fluoridated or fluoride-deficient water continuously from birth. *Int. Dent. J.* 14:497, 1964.
- ⁸U.S. National Health Survey: Loss of teeth, by J. W. Bergsten. *Health Statistics*. PHS Pub. No. 584-B22. Public Health Service. Washington. U.S. Government Printing Office, Sept. 1960.
- ⁹Suomi, J. D.: Occurrence of dental caries among children and youths in the United States. *J. Prev. Dent.* 5(4): 21-23, July/Aug. 1978.
- ¹⁰National Center for Health Statistics: Edentulous persons: United States, 1971, by C. E. Burnham. *Vital and Health Statistics*. Series 10-No. 89. DHEW Pub. No. (HRA) 74-1516. Health Resources Administration. Washington. U.S. Government Printing Office, June 1974.
- ¹¹National Center for Health Statistics: Selected dental findings in adults by age, race, and sex: United States, 1960-1962, by E. S. Johnson, J. E. Kelly, and L. E. Van Kirk, Jr. *Vital and Health Statistics*. Series 11-No. 7. DHEW Pub. No. (HRA) 74-1274. Health Resources Administration. Washington. U.S. Government Printing Office, Nov. 1965.
- ¹²Institute of Medicine: *Report of a Study: Public Policy Options for Better Dental Health*. Division of Health Care Services. IOM Pub. No. 80-06. Washington. National Academy Press, Dec. 1980.
- ¹³National Center for Health Statistics: Replication: An approach to the analysis of data from complex surveys, by P. J. McCarthy. *Vital and Health Statistics*. PHS Pub. No. 1000-Series 2-No. 14. Public Health Service. Washington. U.S. Government Printing Office, Apr. 1966.

List of detailed tables

1. Average number of decayed (d), nonfunctional-cariou (e), and filled (f) primary teeth per child among children 1-5 years of age, by race, sex, and age, with standard errors of the estimates: United States, 1971-74	20	race, sex, and age, with standard errors of the estimates: United States, 1971-74	30
2. Average number of decayed (d), nonfunctional-cariou (e), and filled (f) primary teeth per child among children 6-11 years of age, by race, sex, and age, with standard errors of the estimates: United States, 1971-74	21	14. Number of decayed, missing, and filled (DMF) teeth per 100 erupted permanent teeth among youths 12-17 years of age, by race, sex, and age, with standard errors of the estimates: United States, 1971-74	30
3. Percent distribution of children 1-5 years of age, by number of decayed (d), nonfunctional-cariou (e), and filled (f) primary teeth, according to sex, with standard errors of the percent: United States, 1971-74	22	15. Average number of decayed (D), missing (M), and filled (F) permanent teeth per person among dentulous and edentulous adults 18-74 years of age, by race, sex, and age, with standard errors of the estimates: United States, 1971-74	31
4. Average number of decayed (D), missing (M), and filled (F) permanent teeth per child among children 6-11 years of age, by race, sex, and age, with standard errors of the estimates: United States, 1971-74	23	16. Average number of decayed (D), missing (M), and filled (F) permanent teeth per child among children 6-11 years of age, by sex, race, and family income, with standard errors of the estimates: United States, 1971-74	32
5. Percent distribution of children 6-11 years of age, by number of decayed (D), missing (M), and filled (F) permanent teeth, according to sex, with standard errors of the percent: United States, 1971-74	24	17. Average number of decayed (D), missing (M), and filled (F) permanent teeth per child among children 6-11 years of age, by sex, race, and education of head of household, with standard errors of the estimates: United States, 1971-74	33
6. Average number of decayed (D), missing (M), and filled (F) permanent teeth per person among youths 12-17 years of age, by race, sex, and age, with standard errors of the estimates: United States, 1971-74	25	18. Average number of decayed (D), missing (M), and filled (F) permanent teeth per person among youths 12-17 years of age, by sex, race, and family income, with standard errors of the estimates: United States, 1971-74	34
7. Percent distribution of youths 12-17 years of age, by number of decayed (D), missing (M), and filled (F) permanent teeth, according to sex, with standard errors of the percent: United States, 1971-74	26	19. Average number of decayed (D), missing (M), and filled (F) permanent teeth per person among youths 12-17 years of age, by sex, race, and education of head of household, with standard errors of the estimates: United States, 1971-74	35
8. Average number of decayed (D), missing (M), and filled (F) permanent teeth per person among dentulous adults 18-74 years of age, by race, sex, and age, with standard errors of the estimates: United States, 1971-74	27	20. Average number of decayed (D), missing (M), and filled (F) permanent teeth per person among dentulous adults 18-74 years of age, by sex, race, and family income, with standard errors of the estimates: United States, 1971-74	36
9. Percent distribution of adults 18-74 years of age, by number of edentulous arches, according to sex and age, with standard errors of the percent: United States, 1971-74	28	21. Average number of decayed (D), missing (M), and filled (F) permanent teeth per person among dentulous adults 18-74 years of age, by sex, race, and education, with standard errors of the estimates: United States, 1971-74	37
10. Percent distribution of white adults 18-74 years of age, by number of edentulous arches, according to sex and age, with standard errors of the percent: United States, 1971-74	28	22. Average number of decayed (D), missing (M), and filled (F) permanent teeth per child among children 6-11 years of age, by sex, race, and geographic region, with standard errors of the estimates: United States, 1971-74	38
11. Percent distribution of black adults 18-74 years of age, by number of edentulous arches, according to sex and age, with standard errors of the percent: United States, 1971-74	29	23. Average number of decayed (D), missing (M), and filled (F) permanent teeth per person among youths 12-17 years of age, by sex, race, and geographic region, with standard errors of the estimates: United States, 1971-74	39
12. Percent distribution of dentulous adults 18-74 years of age, by number of decayed (D), missing (M), and filled (F) permanent teeth, according to sex, with standard errors of the percent: United States, 1971-74	29	24. Average number of decayed (D), missing (M), and filled (F) permanent teeth per person among dentulous adults 18-74 years of age, by sex, race, and geographic region, with standard errors of the estimates: United States, 1971-74	40
13. Number of decayed, missing, and filled (DMF) teeth per 100 erupted permanent teeth among children 6-11 years of age, by			

Table 1. Average number of decayed (d), nonfunctional-carious (e), and filled (f) primary teeth per child among children 1-5 years of age, by race, sex, and age, with standard errors of the estimates: United States, 1971-74

Sex and age	def teeth			d teeth			e teeth			f teeth		
	All races ¹	White	Black	All races^{1}	White	Black	All races^{1}	White	Black	All races^{1}	White	Black
Number of teeth												
Both sexes												
All ages, 1-5 years	1.0	1.0	1.0	0.7	0.7	0.8	0.1	0.1	*0.1	0.2	0.2	0.1
1 year	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	-	*0.0	-	-	-
2 years	0.2	*0.2	*0.1	0.2	*0.2	*0.1	-	-	-	*0.0	*0.0	-
3 years	0.8	0.8	*0.8	0.8	0.7	0.7	*0.0	*0.0	*0.1	*0.1	*0.1	*0.0
4 years	1.7	1.6	2.0	1.2	1.1	1.7	*0.1	*0.1	*0.2	0.4	0.4	*0.1
5 years	2.2	2.1	2.3	1.4	1.3	1.7	*0.2	*0.2	*0.2	0.6	0.7	0.4
Boys												
All ages, 1-5 years	1.0	1.0	1.1	0.8	0.7	0.9	*0.1	*0.1	*0.1	0.2	0.2	*0.1
1 year	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	-	-	-	-	-	-
2 years	*0.3	*0.3	*0.1	*0.3	*0.2	*0.1	-	-	-	*0.0	*0.0	-
3 years	1.0	0.9	*0.8	0.9	0.8	*0.7	*0.0	*0.0	*0.1	*0.1	*0.1	*0.0
4 years	1.7	1.5	2.4	1.3	1.1	2.1	*0.1	*0.1	*0.2	0.3	*0.3	*0.1
5 years	2.2	2.2	2.0	1.4	1.3	*1.8	*0.2	*0.2	*0.0	0.6	0.7	*0.2
Girls												
All ages, 1-5 years	0.9	0.9	1.0	0.7	0.6	0.8	0.1	0.1	0.1	0.2	0.2	*0.1
1 year	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	0.0	-	0.0	-	-	-
2 years	*0.2	*0.2	*0.0	*0.2	*0.2	*0.0	-	-	-	-	-	-
3 years	0.7	0.7	*0.8	0.6	0.6	*0.7	*0.0	*0.0	*0.1	*0.0	*0.0	-
4 years	1.6	1.6	*1.6	1.1	1.1	*1.4	*0.1	*0.1	*0.1	*0.4	*0.5	*0.1
5 years	2.1	2.1	2.5	1.4	1.3	1.7	*0.2	*0.1	*0.4	0.6	0.6	*0.5
Standard error												
Both sexes												
All ages, 1-5 years	0.06	0.06	0.11	0.05	0.06	0.09	0.01	0.01	*0.04	0.02	0.02	0.02
1 year	*0.02	*0.02	*0.01	*0.02	*0.02	*0.01	*0.00	-	*0.00	-	-	-
2 years	0.05	*0.06	*0.03	0.05	*0.06	*0.03	-	-	-	*0.00	*0.01	-
3 years	0.11	0.11	*0.20	0.11	0.11	0.17	*0.01	*0.01	*0.06	*0.02	*0.02	*0.01
4 years	0.16	0.17	0.25	0.12	0.13	0.22	*0.04	*0.04	*0.08	0.07	0.09	*0.07
5 years	0.17	0.17	0.39	0.13	0.14	0.34	*0.05	*0.05	*0.14	0.07	0.08	0.08
Boys												
All ages, 1-5 years	0.09	0.09	0.19	0.08	0.08	0.16	*0.02	*0.01	*0.04	0.03	0.03	*0.03
1 year	*0.02	*0.03	*0.01	*0.02	*0.03	*0.01	-	-	-	-	-	-
2 years	*0.08	*0.09	*0.05	*0.08	*0.09	*0.05	-	-	-	*0.01	*0.01	-
3 years	0.20	0.20	*0.33	0.19	0.19	*0.28	*0.01	*0.01	*0.08	*0.03	*0.04	*0.03
4 years	0.21	0.23	0.41	0.17	0.18	0.33	*0.05	*0.06	*0.11	0.07	*0.08	*0.13
5 years	0.26	0.29	0.46	0.19	0.21	*0.46	*0.08	*0.10	*0.03	0.12	0.14	*0.09
Girls												
All ages, 1-5 years	0.09	0.09	0.12	0.06	0.07	0.10	0.01	0.01	0.06	0.03	0.04	*0.05
1 year	*0.01	*0.02	*0.01	*0.01	*0.02	*0.01	0.00	-	0.01	-	-	-
2 years	*0.07	*0.08	*0.02	*0.07	*0.08	*0.02	-	-	-	-	-	-
3 years	0.11	0.13	*0.26	0.11	0.12	*0.21	*0.02	*0.02	*0.09	*0.02	*0.02	-
4 years	0.23	0.28	*0.45	0.16	0.19	*0.45	*0.04	*0.04	*0.07	*0.13	*0.15	*0.08
5 years	0.25	0.27	0.46	0.19	0.20	0.36	*0.05	*0.04	*0.26	0.11	0.12	*0.21

¹Includes data for "other races," which are not shown separately.

NOTES: Filled teeth include only those with satisfactory fillings. Decayed teeth include not only teeth with caries but also filled teeth with carious lesions or defective fillings. Nonfunctional-carious teeth are those that cannot be saved because of extensive caries. The total of these 3 categories is def.

Where an asterisk is printed next to the cell value, the number of cases for that cell was less than 30 or the relative standard error for the cell value was 25 percent or more.

Table 2. Average number of decayed (d), nonfunctional-carious (e), and filled (f) primary teeth per child among children 6-11 years of age, by race, sex, and age, with standard errors of the estimates: United States, 1971-74

Sex and age	def teeth			d teeth			e teeth			f teeth		
	All races ¹	White	Black	All races^{1}	White	Black	All races^{1}	White	Black	All races^{1}	White	Black
Number of teeth												
Both sexes												
All ages, 6-11 years	2.7	2.8	2.1	1.2	1.2	1.2	0.3	0.3	0.3	1.2	1.4	0.5
6 years	3.3	3.3	3.4	1.7	1.7	2.1	*0.3	*0.3	*0.5	1.3	1.3	*0.9
7 years	3.5	3.7	2.4	1.8	1.8	1.6	0.5	0.5	*0.2	1.3	1.4	*0.5
8 years	3.7	3.8	2.9	1.6	1.6	*1.7	*0.3	*0.3	*0.3	1.7	1.9	*0.9
9 years	2.8	2.9	2.4	1.2	1.2	1.3	0.3	0.3	0.4	1.3	1.4	*0.7
10 years	2.1	2.3	1.1	0.6	0.6	0.7	*0.2	*0.1	*0.3	1.3	1.5	*0.1
11 years	1.2	1.3	*0.4	0.5	0.6	*0.2	0.1	*0.1	*0.1	0.6	0.7	*0.1
Boys												
All ages, 6-11 years	2.8	3.0	2.1	1.3	1.3	1.4	0.3	0.3	0.2	1.2	1.3	0.5
6 years	3.7	3.9	3.2	2.2	2.3	*2.2	*0.4	*0.4	*0.1	1.1	1.2	*0.8
7 years	3.7	3.9	*2.8	1.8	1.8	*1.9	*0.6	*0.7	*0.2	1.3	1.4	*0.7
8 years	3.7	3.8	2.4	1.5	1.5	1.7	*0.4	*0.4	*0.4	1.8	2.0	*0.3
9 years	2.9	2.9	2.8	1.4	1.3	1.7	*0.4	*0.3	*0.4	1.2	1.2	*0.8
10 years	2.1	2.2	*1.1	0.7	0.7	*0.9	*0.1	*0.1	*0.1	1.2	1.4	-
11 years	1.3	1.5	*0.2	0.6	0.7	*0.1	*0.1	*0.1	-	0.6	0.7	*0.1
Girls												
All ages, 6-11 years	2.6	2.7	2.1	1.1	1.1	1.1	0.3	0.2	*0.4	1.3	1.4	0.6
6 years	2.9	2.8	3.6	1.2	1.1	*1.9	*0.3	*0.2	*0.8	1.4	1.5	*1.0
7 years	3.2	3.5	*2.0	1.7	1.8	*1.3	*0.4	*0.4	*0.2	1.2	1.3	*0.4
8 years	3.7	3.8	3.2	1.8	1.8	*1.7	*0.3	*0.3	*0.2	1.7	1.8	*1.3
9 years	2.7	2.9	1.8	1.0	1.0	*0.7	0.3	*0.3	*0.4	1.4	1.5	*0.7
10 years	2.2	2.4	*1.2	0.6	0.6	*0.5	*0.2	*0.2	*0.5	1.4	1.6	*0.2
11 years	1.1	1.1	*0.6	0.4	0.4	*0.3	*0.1	*0.1	*0.2	0.5	0.6	*0.1
Standard error												
Both sexes												
All ages, 6-11 years	0.09	0.09	0.14	0.06	0.07	0.12	0.04	0.04	0.07	0.07	0.08	0.08
6 years	0.26	0.28	0.50	0.18	0.22	0.37	*0.11	*0.11	*0.24	0.12	0.14	*0.33
7 years	0.22	0.24	0.46	0.15	0.16	0.39	0.11	0.13	*0.07	0.13	0.15	*0.17
8 years	0.21	0.22	0.44	0.16	0.17	*0.43	*0.08	*0.09	*0.10	0.18	0.20	*0.31
9 years	0.19	0.21	0.27	0.11	0.12	0.24	0.06	0.06	0.10	0.14	0.16	*0.21
10 years	0.18	0.20	0.22	0.07	0.07	0.17	*0.05	*0.05	*0.17	0.17	0.19	*0.06
11 years	0.12	0.14	*0.15	0.09	0.10	*0.10	0.03	*0.03	*0.06	0.07	0.08	*0.07
Boys												
All ages, 6-11 years	0.12	0.14	0.17	0.08	0.09	0.17	0.06	0.07	0.04	0.09	0.11	0.10
6 years	0.37	0.47	0.52	0.33	0.40	*0.58	*0.17	*0.21	*0.10	0.15	0.20	*0.44
7 years	0.30	0.34	*0.72	0.20	0.21	*0.59	*0.19	*0.22	*0.11	0.16	0.18	*0.29
8 years	0.34	0.37	0.52	0.22	0.23	0.41	*0.14	*0.16	*0.20	0.30	0.34	*0.21
9 years	0.29	0.33	0.42	0.18	0.19	0.35	*0.10	*0.11	*0.16	0.21	0.25	*0.34
10 years	0.23	0.26	*0.30	0.10	0.10	*0.31	*0.06	*0.07	*0.07	0.20	0.23	-
11 years	0.19	0.21	*0.09	0.14	0.16	*0.07	*0.04	*0.05	-	0.11	0.13	*0.05
Girls												
All ages, 6-11 years	0.11	0.11	0.21	0.07	0.07	0.13	0.04	0.03	*0.13	0.09	0.10	0.13
6 years	0.30	0.22	0.83	0.17	0.16	*0.47	*0.12	*0.09	*0.44	0.20	0.21	*0.43
7 years	0.28	0.30	*0.61	0.22	0.24	*0.47	*0.09	*0.10	*0.12	0.24	0.28	*0.29
8 years	0.26	0.26	0.70	0.23	0.24	*0.68	*0.07	*0.08	*0.12	0.20	0.23	*0.49
9 years	0.25	0.28	0.30	0.16	0.18	*0.23	0.07	*0.08	*0.20	0.18	0.19	*0.31
10 years	0.25	0.28	*0.34	0.09	0.11	*0.15	*0.09	*0.08	*0.30	0.25	0.28	*0.10
11 years	0.16	0.17	*0.30	0.08	0.08	*0.19	*0.05	*0.04	*0.12	0.11	0.13	*0.12

¹ Includes data for "other races," which are not shown separately.

NOTES: Filled teeth include only those with satisfactory fillings. Decayed teeth include not only teeth with caries but also filled teeth with carious lesions or defective fillings. Nonfunctional-carious teeth are those that cannot be saved because of extensive caries. The total of these 3 categories is def.

Where an asterisk is printed next to the cell value, the number of cases for that cell was less than 30 or the relative standard error for the cell value was 25 percent or more.

Table 3. Percent distribution of children 1-5 years of age, by number of decayed (d), nonfunctional-carious (e), and filled (f) primary teeth, according to sex, with standard errors of the percent: United States, 1971-74

Number of teeth	Both sexes			Boys			Girls			Number of teeth	Both sexes			Boys			Girls															
	Both sexes	Boys	Girls	Both sexes	Boys	Girls	Both sexes	Boys	Girls		Both sexes	Boys	Girls	Both sexes	Boys	Girls	Both sexes	Boys	Girls													
Percent distribution																																
def teeth	100.0	100.0	100.0	...	...	...	d teeth—Con.																						
0	75.7	74.5	76.9	1.29	1.84	1.44	11	*0.4	*0.6	*0.2	*0.14	*0.25	*0.13	12	*0.1	*0.1	*0.0	*0.05	*0.10	*0.03												
1	6.0	6.3	5.6	0.69	0.97	0.84	13	*0.1	*0.1	*0.1	*0.08	*0.10	*0.09	14 or more . .	*0.2	*0.1	*0.2	*0.05	*0.12	*0.13												
2	5.6	5.8	5.4	0.53	0.74	0.81	e teeth																									
3	2.1	2.2	*2.0	0.35	0.52	*0.55	0	100.0	100.0	100.0	...	...	...	0	97.6	97.9	97.4	0.52	0.61	0.69									
4	2.9	3.2	2.5	0.43	0.62	0.46	1	*1.1	*1.0	*1.3	*0.31	*0.35	*0.52	1	*1.1	*1.0	*1.3	*0.31	*0.35	*0.52												
5	1.6	*1.8	*1.5	0.36	*0.41	*0.46	2	*0.2	*0.0	*0.5	*0.13	*0.01	*0.26	2	*0.2	*0.0	*0.5	*0.13	*0.01	*0.26												
6	1.5	*1.8	*1.3	0.33	*0.51	*0.29	3	*0.4	*0.4	*0.4	*0.16	*0.23	*0.24	3	*0.4	*0.4	*0.4	*0.16	*0.23	*0.24												
7	1.1	*1.0	*1.2	0.16	*0.29	*0.32	4	*0.2	*0.2	*0.2	*0.10	*0.13	*0.13	4	*0.2	*0.2	*0.2	*0.10	*0.13	*0.13												
8	1.1	*1.2	*1.1	0.26	*0.39	*0.36	5	*0.1	*0.1	*0.2	*0.09	*0.08	*0.16	5	*0.1	*0.1	*0.2	*0.09	*0.08	*0.16												
9	*0.4	*0.3	*0.4	*0.12	*0.17	*0.18	6	*0.1	*0.2	-	*0.05	*0.10	-	6	*0.1	*0.2	-	*0.05	*0.10	-												
10	*0.5	*0.2	*0.8	*0.15	*0.11	*0.30	7	*0.0	*0.0	-	*0.01	*0.03	-	7	*0.0	*0.0	-	*0.01	*0.03	-												
11	*0.4	*0.4	*0.4	*0.16	*0.17	*0.20	8	*0.1	*0.1	*0.0	*0.05	*0.09	*0.02	8	*0.1	*0.1	*0.0	*0.05	*0.09	*0.02												
12	*0.4	*0.4	*0.3	*0.12	*0.20	*0.17	9 or more . . .	*0.1	*0.2	-	*0.06	*0.11	-	f teeth																		
13	*0.3	*0.4	*0.2	*0.12	*0.19	*0.12	0	100.0	100.0	100.0	...	...	...	0	93.8	93.2	94.5	0.67	0.91	0.80									
14 or more . .	*0.5	*0.6	*0.4	*0.11	*0.21	*0.22	1	1.7	*2.1	*1.3	0.35	*0.57	*0.34	1	1.7	*2.1	*1.3	0.35	*0.57	*0.34												
d teeth																																
0	100.0	100.0	100.0	...	...	...	2	1.9	*2.5	*1.2	0.31	*0.51	*0.35	2	1.9	*2.5	*1.2	0.31	*0.51	*0.35									
0	79.7	78.6	80.8	1.23	1.86	1.35	3	*0.5	*0.2	*0.7	*0.19	*0.18	*0.34	3	*0.5	*0.2	*0.7	*0.19	*0.18	*0.34												
1	5.7	5.7	5.6	0.57	0.88	0.90	4	*0.6	*0.8	*0.4	*0.15	*0.27	*0.13	4	*0.6	*0.8	*0.4	*0.15	*0.27	*0.13												
2	4.9	5.0	4.8	0.53	0.72	0.76	5	*0.3	*0.4	*0.2	*0.11	*0.18	*0.12	5	*0.3	*0.4	*0.2	*0.11	*0.18	*0.12												
3	2.4	2.7	*2.1	0.37	0.51	*0.54	6	*0.3	*0.3	*0.2	*0.11	*0.13	*0.15	6	*0.3	*0.3	*0.2	*0.11	*0.13	*0.15												
4	2.1	2.2	1.9	0.33	0.45	0.31	7	*0.6	*0.4	*0.9	*0.13	*0.22	*0.28	7	*0.6	*0.4	*0.9	*0.13	*0.22	*0.28												
5	1.3	*1.4	*1.3	0.25	*0.35	*0.31	8	*0.2	*0.1	*0.3	*0.08	*0.07	*0.14	8	*0.2	*0.1	*0.3	*0.08	*0.07	*0.14												
6	1.1	*1.4	*0.7	0.25	*0.45	*0.23	9 or more . . .	*0.2	*0.0	*0.3	*0.09	*0.03	*0.12	9 or more . . .	*0.2	*0.0	*0.3	*0.09	*0.03	*0.12												
7	*0.5	*0.8	*0.3	*0.19	*0.35	*0.17	NOTES: Filled teeth include only those with satisfactory fillings. Decayed teeth include not only teeth with caries but also filled teeth with carious lesions or defective fillings. Nonfunctional-carious teeth are those that cannot be saved because of extensive caries. The total of these 3 categories is def.																									
8	*0.8	*0.5	*1.2	*0.19	*0.16	*0.36	Where an asterisk is printed next to the cell value, the number of cases for that cell was less than 30 or the relative standard error for the cell value was 25 percent or more.																									
9	*0.5	*0.5	*0.5	*0.15	*0.22	*0.21																										
10	*0.3	*0.3	*0.3	*0.13	*0.15	*0.14																										

NOTES: Filled teeth include only those with satisfactory fillings. Decayed teeth include not only teeth with caries but also filled teeth with carious lesions or defective fillings. Nonfunctional-carious teeth are those that cannot be saved because of extensive caries. The total of these 3 categories is def.

Where an asterisk is printed next to the cell value, the number of cases for that cell was less than 30 or the relative standard error for the cell value was 25 percent or more.

Table 4. Average number of decayed (D), missing (M), and filled (F) permanent teeth per child among children 6-11 years of age, by race, sex, and age, with standard errors of the estimates: United States, 1971-74

Sex and age	DMF teeth			D teeth			M teeth			F teeth		
	All races ¹	White	Black	All races^{1}	White	Black	All races^{1}	White	Black	All races^{1}	White	Black
Number of teeth												
Both sexes												
All ages, 6-11 years	1.7	1.6	1.7	0.7	0.6	0.9	0.1	0.1	0.3	0.8	0.9	0.5
6 years	0.2	0.2	*0.2	0.1	*0.1	*0.2	*0.0	*0.0	-	*0.1	*0.1	*0.0
7 years	0.5	0.5	*0.5	0.4	0.4	*0.3	*0.0	*0.0	*0.1	*0.2	*0.2	*0.1
8 years	1.2	1.2	1.3	0.6	0.5	*0.8	*0.1	*0.1	*0.1	0.6	0.6	*0.4
9 years	2.1	2.0	2.5	0.9	0.8	1.5	*0.2	*0.1	*0.4	1.0	1.1	*0.6
10 years	2.4	2.4	2.4	0.9	0.8	1.1	0.2	0.2	*0.4	1.4	1.5	*0.9
11 years	2.7	2.7	2.8	1.1	1.0	1.5	0.3	0.2	*0.6	1.4	1.5	*0.7
Boys												
All ages, 6-11 years	1.5	1.5	1.6	0.7	0.6	0.9	0.2	0.1	*0.4	0.7	0.8	*0.3
6 years	*0.2	*0.2	*0.4	*0.1	*0.1	*0.3	*0.0	*0.0	-	*0.1	*0.1	*0.1
7 years	0.5	0.5	*0.7	*0.3	*0.3	*0.4	*0.1	*0.0	*0.3	*0.1	*0.1	*0.1
8 years	1.3	1.3	*0.8	0.6	0.6	*0.4	*0.1	*0.1	*0.2	0.6	*0.7	*0.1
9 years	1.9	1.7	2.5	1.0	0.8	1.6	*0.3	*0.2	*0.6	0.7	0.7	*0.3
10 years	2.5	2.4	*2.0	0.9	0.8	*1.0	*0.2	*0.2	*0.4	1.4	1.4	*0.6
11 years	2.6	2.6	2.4	1.1	1.0	1.2	*0.4	*0.3	*0.7	1.1	1.3	*0.5
Girls												
All ages, 6-11 years	1.7	1.7	1.8	0.7	0.6	1.0	0.1	0.1	*0.2	0.9	1.0	0.6
6 years	*0.3	*0.2	*0.1	*0.1	*0.2	*0.1	-	-	-	*0.1	*0.1	*0.0
7 years	0.6	0.6	*0.3	*0.4	*0.4	*0.2	*0.0	*0.0	*0.0	*0.2	*0.2	*0.1
8 years	1.2	1.1	1.6	0.6	0.5	*1.0	*0.0	*0.1	-	0.6	0.5	*0.7
9 years	2.4	2.3	*2.7	0.9	0.7	*1.4	*0.1	*0.1	*0.2	1.4	1.5	*1.0
10 years	2.5	2.5	2.7	0.9	0.8	1.2	*0.2	*0.2	*0.4	1.5	1.5	*1.1
11 years	3.1	2.9	3.1	1.1	0.9	1.9	0.3	*0.1	0.4	1.7	1.9	*0.8
Standard error												
Both sexes												
All ages, 6-11 years	0.06	0.05	0.13	0.04	0.04	0.09	0.02	0.02	0.06	0.05	0.05	0.08
6 years	0.04	0.05	*0.11	0.03	*0.04	*0.11	*0.01	*0.02	-	*0.03	*0.03	*0.03
7 years	0.05	0.08	*0.16	0.07	0.07	*0.09	*0.02	*0.02	*0.14	*0.04	*0.05	*0.05
8 years	0.12	0.13	0.23	0.07	0.07	*0.22	*0.03	*0.03	*0.09	0.10	0.11	*0.18
9 years	0.13	0.11	0.38	0.09	0.09	0.25	*0.06	*0.05	*0.23	0.10	0.10	*0.22
10 years	0.15	0.15	0.31	0.08	0.08	0.22	0.04	0.04	*0.16	0.13	0.14	*0.30
11 years	0.14	0.15	0.39	0.10	0.11	0.21	0.05	0.05	*0.20	0.10	0.13	*0.23
Boys												
All ages, 6-11 years	0.06	0.07	0.16	0.04	0.05	0.11	0.03	0.02	*0.12	0.06	0.06	*0.08
6 years	*0.07	*0.07	*0.22	*0.05	*0.04	*0.23	*0.03	*0.04	-	*0.03	*0.04	*0.06
7 years	0.10	0.11	*0.38	*0.09	*0.10	*0.15	*0.04	*0.02	*0.31	*0.04	*0.05	*0.08
8 years	0.17	0.19	*0.35	0.08	0.09	*0.16	*0.04	*0.04	*0.21	0.15	*0.17	*0.09
9 years	0.17	0.19	0.41	0.12	0.13	0.26	*0.09	*0.06	*0.37	0.10	0.12	*0.13
10 years	0.16	0.17	*0.57	0.10	0.11	*0.33	*0.05	*0.06	*0.19	0.16	0.18	*0.40
11 years	0.21	0.23	0.52	0.12	0.14	0.22	*0.09	*0.09	*0.40	0.12	0.14	*0.23
Girls												
All ages, 6-11 years	0.08	0.08	0.18	0.06	0.06	0.13	0.02	0.02	*0.05	0.06	0.07	0.12
6 years	*0.07	*0.08	*0.04	*0.05	*0.06	*0.03	-	-	-	*0.04	*0.05	*0.02
7 years	0.09	0.10	*0.12	*0.10	*0.11	*0.09	*0.01	*0.02	*0.01	*0.06	*0.07	*0.08
8 years	0.13	0.14	0.31	0.09	0.08	*0.35	*0.04	*0.04	-	0.11	0.12	*0.31
9 years	0.18	0.18	*0.69	0.11	0.12	*0.39	*0.04	*0.05	*0.06	0.17	0.18	*0.52
10 years	0.22	0.22	0.46	0.12	0.13	0.29	*0.06	*0.05	*0.27	0.17	0.18	*0.45
11 years	0.18	0.22	0.50	0.15	0.15	0.34	0.04	*0.04	0.11	0.15	0.19	*0.36

¹Includes data for "other races," which are not shown separately.

NOTES: Filled teeth include only those with satisfactory fillings. Decayed teeth include not only teeth with caries but also filled teeth with carious lesions or defective fillings. Missing teeth include both missing and nonfunctional teeth. DMF is the total of these 3 categories. Where an asterisk is printed next to the cell value, the number of cases for that cell was less than 30 or the relative standard error for the cell value was 25 percent or more.

Table 5. Percent distribution of children 6-11 years of age, by number of decayed (D), missing (M), and filled (F) permanent teeth, according to sex, with standard errors of the percent: United States, 1971-74

Number of teeth	Both sexes			Both sexes	Boys		Girls	Number of teeth	Both sexes			Both sexes	Boys		Girls
	Percent distribution	Boys	Girls		Standard error	Boys			Girls	Percent distribution	Boys		Girls	Standard error		Boys	Girls
DMF teeth	100.0	100.0	100.0	...	...	...		D teeth—Con.							
0	45.2	47.1	43.1	1.54	1.80	1.97		6	*0.2	*0.1	*0.3	*0.07	*0.04	*0.14	
1	11.7	10.4	13.1	0.86	1.22	1.13		7 or more	*0.1	*0.2	*0.1	*0.08	*0.15	*0.07	
2	12.8	14.4	11.1	0.97	1.47	1.11		M teeth	100.0	100.0	100.0	...	...	...
3	9.5	10.6	8.4	0.85	1.27	0.86		0	91.6	90.7	92.5	0.99	1.09	1.44	
4	15.2	12.7	17.9	1.27	1.58	1.76		1	5.6	5.7	5.4	0.79	0.90	1.26	
5	2.7	*2.3	3.2	0.43	*0.59	0.59		2	1.9	2.3	*1.5	0.36	0.63	*0.37	
6	*1.0	*0.7	*1.3	*0.29	*0.37	*0.45		3	*0.3	*0.4	*0.3	*0.13	*0.18	*0.20	
7	*1.1	*0.8	*1.4	*0.33	*0.33	*0.60		4	*0.4	*0.5	*0.2	*0.23	*0.34	*0.19	
8	*0.3	*0.3	*0.3	*0.14	*0.22	*0.19		5	*0.1	*0.2	-	*0.05	*0.10	-	
9	*0.2	*0.3	*0.1	*0.12	*0.22	*0.60		6	*0.1	*0.2	-	*0.08	*0.15	-	
10	*0.2	*0.3	*0.0	*0.11	*0.21	*0.02		7 or more	*0.1	*0.1	*0.0	*0.04	*0.08	*0.04	
11	-	-	-	-	-	-		F teeth	100.0	100.0	100.0	...	...	...
12 or more	*0.1	*0.1	*0.0	*0.05	*0.09	*0.04		0	69.3	73.1	65.2	1.38	1.69	1.86	
D teeth	100.0	100.0	100.0	...	...	...		1	8.7	7.7	9.7	0.73	0.93	1.04	
0	68.7	68.4	69.1	1.56	1.80	1.94		2	7.3	6.4	8.2	0.68	0.93	0.96	
1	11.9	10.5	13.4	0.90	1.18	1.34		3	4.7	5.4	4.0	0.61	0.89	0.79	
2	9.7	11.5	7.8	1.02	1.13	1.27		4	8.1	6.0	10.3	0.91	1.14	1.22	
3	4.6	5.3	3.9	0.58	0.81	0.60		5	*1.2	*0.8	*1.7	*0.38	*0.40	*0.53	
4	4.3	3.7	4.8	0.57	0.49	0.93		6	*0.2	*0.2	*0.2	*0.11	*0.17	*0.15	
5	*0.5	*0.5	*0.5	*0.17	*0.23	*0.23		7 or more	*0.5	*0.3	*0.7	*0.28	*0.21	*0.48	

NOTES: Filled teeth include only those with satisfactory fillings. Decayed teeth include not only teeth with caries but also filled teeth with carious lesions or defective fillings. Missing teeth include both missing and nonfunctional teeth. DMF is the total of these 3 categories. Where an asterisk is printed next to the cell value, the number of cases for that cell was less than 30 or the relative standard error for the cell value was 25 percent or more.

Table 6. Average number of decayed (D), missing (M), and filled (F) permanent teeth per person among youths 12-17 years of age, by race, sex, and age, with standard errors of the estimates: United States, 1971-74

Sex and age	DMF teeth			D teeth			M teeth			F teeth		
	All races ¹	White	Black	All races^{1}	White	Black	All races^{1}	White	Black	All races^{1}	White	Black
Both sexes												
Number of teeth												
All ages, 12-17 years	6.2	6.3	5.7	1.8	1.6	3.1	0.6	0.6	1.4	3.7	4.1	1.3
12 years	3.8	3.8	3.5	1.2	1.1	1.9	0.3	0.2	*0.9	2.3	2.5	*0.6
13 years	5.0	5.0	4.7	1.8	1.7	2.7	0.4	0.3	*1.1	2.7	3.0	*1.0
14 years	5.8	5.8	6.2	1.8	1.7	2.9	0.7	0.5	*2.0	3.3	3.7	*1.3
15 years	6.3	6.2	6.3	1.8	1.4	3.6	0.7	0.5	*1.4	3.8	4.3	*1.3
16 years	7.7	7.9	6.2	2.0	1.9	3.4	0.9	*0.9	1.3	4.8	5.2	*1.5
17 years	8.7	8.8	7.7	2.2	2.0	3.9	1.1	0.9	1.7	5.4	5.9	2.1
Males												
All ages, 12-17 years	5.7	5.8	5.1	1.7	1.5	3.0	0.5	0.4	0.9	3.5	3.9	1.2
12 years	3.9	4.0	3.2	1.0	0.9	2.1	0.3	0.2	*0.7	2.6	2.9	*0.4
13 years	4.8	4.6	5.6	1.9	1.7	3.1	0.4	0.3	*1.3	2.4	2.6	1.2
14 years	5.1	5.1	5.2	1.7	1.4	3.4	0.5	0.4	*0.8	3.0	3.3	*1.0
15 years	5.4	5.6	4.3	1.6	1.4	*3.0	0.5	0.5	*0.5	3.3	3.6	*0.8
16 years	7.1	7.3	5.8	2.1	1.9	*3.4	0.6	*0.5	*1.0	4.4	4.9	*1.4
17 years	8.1	8.2	7.3	2.1	1.9	3.4	0.6	*0.5	*1.2	5.4	5.8	*2.7
Females												
All ages, 12-17 years	6.7	6.8	6.3	1.9	1.7	3.1	0.9	0.7	*1.9	3.9	4.4	1.3
12 years	3.7	3.7	3.8	1.4	1.4	1.8	*0.4	*0.2	*1.1	1.9	2.1	*0.9
13 years	5.2	5.3	3.9	1.7	1.6	2.4	0.4	0.3	*0.8	3.0	3.4	*0.7
14 years	6.6	6.5	*7.2	2.0	1.9	*2.4	*0.9	*0.5	*3.3	3.7	4.1	*1.6
15 years	7.1	6.9	7.9	1.9	1.4	4.1	0.8	0.5	*2.1	4.4	5.0	*1.6
16 years	8.3	8.5	6.7	1.9	1.8	3.4	*1.2	*1.2	1.7	5.1	5.5	*1.6
17 years	9.4	9.6	8.2	2.4	2.1	4.4	1.6	1.5	2.2	5.4	6.0	*1.6
Both sexes												
Standard error												
All ages, 12-17 years	0.14	0.15	0.43	0.10	0.09	0.23	0.06	0.05	0.31	0.11	0.14	0.17
12 years	0.20	0.21	0.43	0.11	0.12	0.30	0.05	0.05	*0.23	0.16	0.19	*0.22
13 years	0.23	0.25	0.55	0.15	0.17	0.42	0.05	0.05	*0.28	0.21	0.22	*0.25
14 years	0.30	0.27	1.14	0.14	0.14	0.47	0.17	0.08	*1.26	0.23	0.26	*0.44
15 years	0.29	0.31	0.96	0.15	0.15	0.66	0.12	0.08	*0.53	0.26	0.30	*0.45
16 years	0.37	0.42	0.78	0.23	0.22	0.57	0.22	*0.25	0.23	0.31	0.33	*0.47
17 years	0.31	0.31	0.85	0.19	0.17	0.52	0.14	0.15	0.31	0.24	0.26	0.50
Males												
All ages, 12-17 years	0.17	0.16	0.46	0.11	0.10	0.29	0.04	0.04	0.12	0.13	0.14	0.22
12 years	0.28	0.32	0.58	0.13	0.12	0.42	0.05	0.05	*0.24	0.32	0.36	*0.24
13 years	0.33	0.34	0.77	0.24	0.24	0.64	0.08	0.06	*0.42	0.26	0.28	0.30
14 years	0.33	0.37	0.70	0.21	0.20	0.63	0.07	0.08	*0.29	0.31	0.34	*0.42
15 years	0.36	0.37	1.00	0.22	0.20	*0.94	0.09	0.11	*0.20	0.31	0.30	*0.48
16 years	0.47	0.53	1.19	0.35	0.37	*0.87	0.14	*0.16	*0.36	0.46	0.51	*0.46
17 years	0.39	0.41	1.40	0.20	0.21	0.71	0.13	*0.14	*0.30	0.29	0.31	*0.76
Females												
All ages, 12-17 years	0.22	0.24	0.64	0.12	0.12	0.31	0.11	0.10	*0.58	0.19	0.24	0.24
12 years	0.35	0.36	0.75	0.17	0.19	0.43	*0.11	*0.08	*0.45	0.22	0.24	*0.43
13 years	0.31	0.34	0.71	0.21	0.23	0.58	0.06	0.07	*0.26	0.29	0.31	*0.33
14 years	0.46	0.42	*2.19	0.25	0.26	*0.63	*0.32	*0.14	*2.39	0.31	0.37	*0.56
15 years	0.39	0.41	1.24	0.26	0.26	0.87	0.20	0.12	*0.90	0.34	0.39	*0.63
16 years	0.73	0.80	1.06	0.30	0.30	0.47	*0.40	*0.44	0.34	0.61	0.66	*1.02
17 years	0.53	0.56	1.06	0.26	0.27	0.70	0.24	0.27	0.54	0.43	0.47	*0.60

¹Includes data for "other races," which are not shown separately.

NOTES: Filled teeth include only those with satisfactory fillings. Decayed teeth include not only teeth with caries but also filled teeth with carious lesions or defective fillings. Missing teeth include both missing and nonfunctional teeth. DMF is the total of these 3 categories.

Where an asterisk is printed next to the cell value, the number of cases for that cell was less than 30 or the relative standard error for the cell value was 25 percent or more.

Table 7. Percent distribution of youths 12-17 years of age, by number of decayed (D), missing (M), and filled (F) permanent teeth, according to sex, with standard errors of the percent: United States, 1971-74

Number of teeth	Both sexes			Standard error			Number of teeth	Both sexes			Standard error		
	Males	Females	Both sexes	Males	Females	Males		Females	Both sexes	Males	Females		
4DMF teeth	100.0	100.0	100.0	...	...	...	D teeth—Con.						
0	9.6	9.7	9.6	0.82	1.35	1.17	10	*0.6	*0.6	*0.6	*0.18	*0.25	*0.26
1	4.6	5.1	4.1	0.49	0.78	0.72	11	*0.5	*0.2	*0.7	*0.21	*0.16	*0.34
2	6.6	7.3	5.8	0.55	0.81	1.00	12 or more	*0.9	*0.6	*1.2	*0.21	*0.25	*0.40
3	7.6	8.0	7.3	0.84	1.17	1.16	M teeth	100.0	100.0	100.0	...	...	...
4	14.4	16.2	12.6	1.01	1.35	1.50	0	74.2	78.0	70.3	1.05	1.50	1.46
5	9.0	10.7	7.2	0.56	1.05	0.77	1	9.4	8.2	10.8	0.77	0.94	1.27
6	7.2	8.0	6.5	0.65	1.25	0.91	2	8.5	7.6	9.3	0.61	0.97	1.11
7	7.3	5.4	9.4	0.70	0.78	1.20	3	3.1	2.6	3.5	0.48	0.59	0.66
8	7.3	8.1	6.4	0.57	0.85	0.90	4	2.2	*2.5	*2.0	0.33	*0.65	*0.52
9	6.6	5.7	7.6	0.72	1.10	0.95	5	*0.8	*0.5	*1.1	*0.21	*0.23	*0.38
10	4.0	3.2	4.8	0.53	0.71	0.76	6	*0.5	*0.3	*0.7	*0.15	*0.15	*0.25
11	3.4	3.7	3.0	0.44	0.72	0.48	7 or more	*1.3	*0.3	*2.3	*0.32	*0.14	*0.70
12	3.3	*2.6	4.0	0.63	*0.74	0.85	F teeth	100.0	100.0	100.0	...	...	...
13	1.8	*1.2	*2.4	0.38	*0.31	*0.65	0	32.3	34.0	30.6	1.24	1.77	1.49
14	1.7	*1.3	*2.2	0.33	*0.45	*0.41	1	6.7	6.1	7.3	0.68	0.94	1.07
15	*1.4	*1.0	*1.9	*0.32	*0.38	*0.53	2	8.4	8.2	8.6	0.69	1.10	0.93
16	*0.8	*0.7	*0.9	*0.29	*0.31	*0.35	3	6.9	7.4	6.3	0.74	1.02	1.25
17	*0.7	*0.5	*0.9	*0.21	*0.24	*0.33	4	12.3	13.6	10.9	1.05	1.36	1.43
18	*0.8	*0.7	*1.0	*0.25	*0.34	*0.42	5	6.6	6.7	6.6	0.76	1.00	1.13
19	*0.5	*0.3	*0.8	*0.21	*0.17	*0.39	6	4.8	4.4	5.2	0.64	0.87	0.79
20	*0.3	*0.2	*0.4	*0.13	*0.15	*0.22	7	4.1	3.4	4.8	0.59	0.73	1.01
21 or more	*1.0	*0.6	*1.4	*0.30	*0.32	*0.51	8	4.9	4.8	5.0	0.48	0.72	0.72
D teeth	100.0	100.0	100.0	...	...	...	9	4.0	3.6	4.3	0.50	0.67	0.82
0	46.0	47.5	44.4	1.66	2.01	2.02	10	2.3	*2.0	*2.5	0.46	*0.56	*0.51
1	16.2	15.8	16.6	1.05	1.31	1.35	11	*1.6	*1.6	*1.5	*0.32	*0.46	*0.41
2	10.0	10.4	9.7	0.85	1.34	1.05	12	1.6	*1.0	*2.1	0.25	*0.36	*0.48
3	8.8	6.8	10.9	0.71	0.97	1.09	13	*0.7	*0.7	*0.8	*0.25	*0.28	*0.35
4	6.1	7.1	5.1	0.82	1.10	0.97	14	*1.3	*0.5	*2.1	*0.38	*0.25	*0.70
5	3.5	4.1	2.9	0.40	0.78	0.63	15	*0.8	*0.9	*0.7	*0.28	*0.41	*0.31
6	2.9	2.6	3.2	0.44	0.55	0.69	16	*0.1	*0.2	*0.0	*0.07	*0.13	*0.03
7	2.1	*1.7	2.5	0.38	*0.43	0.56	17 or more	*0.7	*0.7	*0.7	*0.31	*0.39	*0.32
8	1.4	*1.6	*1.1	0.27	*0.44	*0.33							
9	*1.1	*1.1	*1.0	*0.27	*0.39	*0.35							

NOTES: Filled teeth include only those with satisfactory fillings. Decayed teeth include not only teeth with caries but also filled teeth with carious lesions or defective fillings. Missing teeth include both missing and nonfunctional teeth. DMF is the total of these 3 categories.

Where an asterisk is printed next to the cell value, the number of cases for that cell was less than 30 or the relative standard error for the cell value was 25 percent or more.

Table 8. Average number of decayed (D), missing (M), and filled (F) teeth per person among dentulous adults 18-74 years of age, by race, sex, and age, with standard errors of the estimates: United States, 1971-74

Sex and age	DMF teeth			D teeth			M teeth			F teeth		
	All races ¹	White	Black	All races^{1}	White	Black	All races^{1}	White	Black	All races^{1}	White	Black
Both sexes												
Number of teeth												
All ages, 18-74 years	16.9	17.5	13.3	1.4	1.3	2.5	7.4	7.3	8.5	8.1	8.9	2.3
18-24 years	10.7	11.0	9.2	2.1	1.8	3.8	1.8	1.6	3.0	7.0	7.6	2.4
25-34 years	15.4	15.7	13.0	1.7	1.6	3.3	4.6	4.3	6.7	9.1	9.8	3.1
35-44 years	19.2	19.8	15.7	1.2	1.0	2.2	9.1	8.9	11.2	9.0	9.9	2.2
45-54 years	19.9	20.7	13.9	1.0	0.9	1.4	10.6	10.6	10.4	8.4	9.2	2.0
55-64 years	21.1	21.9	14.8	0.9	0.8	1.3	12.5	12.6	12.4	7.7	8.5	1.1
65-74 years	22.2	22.5	19.9	0.6	0.5	1.1	15.2	14.9	17.8	6.4	7.0	1.0
Men												
All ages, 18-74 years	16.4	17.0	12.5	1.5	1.4	2.4	7.1	7.0	8.1	7.9	8.6	2.0
18-24 years	10.5	10.8	8.5	2.2	2.0	4.2	1.7	1.6	2.6	6.6	7.2	1.7
25-34 years	14.9	15.2	13.0	1.8	1.7	3.0	4.1	3.9	6.4	9.0	9.5	3.6
35-44 years	18.4	18.9	14.6	1.2	1.1	2.1	8.4	8.2	10.4	8.8	9.6	2.0
45-54 years	19.2	20.2	11.6	1.0	1.0	1.2	9.9	10.1	9.0	8.3	9.1	*1.3
55-64 years	20.7	21.5	14.6	1.0	1.0	0.9	12.4	12.4	12.6	7.3	8.1	*1.0
65-74 years	21.9	22.3	19.5	0.7	0.6	1.2	15.6	15.5	17.5	5.5	6.1	0.8
Women												
All ages, 18-74 years	17.4	17.9	14.0	1.3	1.1	2.6	7.8	7.7	8.9	8.4	9.2	2.5
18-24 years	11.0	11.1	9.7	1.9	1.6	3.5	1.8	1.6	3.3	7.3	7.9	3.0
25-34 years	15.8	16.2	13.0	1.7	1.4	3.5	4.9	4.7	7.0	9.2	10.1	2.6
35-44 years	20.0	20.6	16.5	1.1	0.9	2.2	9.9	9.5	11.9	9.2	10.2	2.4
45-54 years	20.5	21.1	16.1	0.9	0.8	1.6	11.1	11.1	11.8	8.5	9.2	*2.7
55-64 years	21.5	22.3	15.1	0.8	0.7	1.7	12.6	12.7	12.1	8.1	8.9	*1.3
65-74 years	22.5	22.7	20.3	0.5	0.4	0.9	14.8	14.5	18.3	7.2	7.7	1.1
Both sexes												
Standard error												
All ages, 18-74 years	0.15	0.15	0.44	0.05	0.05	0.16	0.20	0.21	0.40	0.15	0.17	0.17
18-24 years	0.23	0.25	0.64	0.13	0.11	0.45	0.11	0.12	0.30	0.18	0.20	0.30
25-34 years	0.27	0.29	0.71	0.08	0.08	0.23	0.32	0.33	0.65	0.22	0.25	0.38
35-44 years	0.25	0.23	0.85	0.06	0.07	0.17	0.27	0.26	0.87	0.20	0.22	0.29
45-54 years	0.20	0.21	0.69	0.06	0.06	0.21	0.35	0.39	0.76	0.27	0.29	0.45
55-64 years	0.31	0.30	1.17	0.06	0.06	0.18	0.51	0.52	1.22	0.30	0.33	0.15
65-74 years	0.15	0.16	0.53	0.02	0.02	0.08	0.29	0.31	0.61	0.21	0.23	0.09
Men												
All ages, 18-74 years	0.17	0.18	0.59	0.06	0.06	0.21	0.24	0.26	0.48	0.18	0.20	0.25
18-24 years	0.31	0.36	0.94	0.17	0.15	0.63	0.21	0.23	0.33	0.31	0.36	0.43
25-34 years	0.35	0.36	1.11	0.14	0.13	0.43	0.36	0.37	1.03	0.34	0.37	0.85
35-44 years	0.39	0.38	1.17	0.09	0.10	0.32	0.39	0.42	1.18	0.35	0.36	0.47
45-54 years	0.32	0.33	1.07	0.10	0.10	0.22	0.54	0.60	0.93	0.33	0.35	*0.34
55-64 years	0.35	0.34	1.77	0.09	0.10	0.17	0.63	0.66	1.68	0.36	0.40	*0.25
65-74 years	0.24	0.25	0.73	0.03	0.03	0.15	0.36	0.38	0.81	0.19	0.21	0.12
Women												
All ages, 18-74 years	0.18	0.18	0.43	0.05	0.04	0.18	0.22	0.23	0.45	0.16	0.18	0.17
18-24 years	0.26	0.26	0.74	0.13	0.12	0.46	0.18	0.19	0.45	0.15	0.16	0.34
25-34 years	0.27	0.30	0.70	0.07	0.07	0.23	0.34	0.38	0.65	0.22	0.26	0.21
35-44 years	0.25	0.26	0.80	0.06	0.06	0.21	0.32	0.35	0.87	0.25	0.28	0.26
45-54 years	0.34	0.33	1.03	0.07	0.06	0.28	0.47	0.50	1.07	0.35	0.39	*0.82
55-64 years	0.41	0.38	1.49	0.06	0.05	0.28	0.65	0.67	1.66	0.40	0.44	*0.24
65-74 years	0.21	0.23	0.60	0.02	0.02	0.07	0.38	0.41	0.68	0.27	0.30	0.11

¹ Includes data for "other races," which are not shown separately.

NOTES: Filled teeth include only those with satisfactory fillings. Decayed teeth include not only teeth with caries but also filled teeth with carious lesions or defective fillings. Missing teeth include both missing and nonfunctional teeth. DMF is the total of these 3 categories.

Where an asterisk is printed next to the cell value, the number of cases for that cell was less than 30 or the relative standard error for the cell value was 25 percent or more.

Table 9. Percent distribution of adults 18-74 years of age, by number of edentulous arches, according to sex and age, with standard errors of the percent: United States, 1971-74

<i>Sex and age</i>	<i>Total</i>	<i>With no arch edentulous</i>	<i>With 1 arch edentulous</i>	<i>With both arches edentulous</i>	<i>Sex and age</i>	<i>Total</i>	<i>With no arch edentulous</i>	<i>With 1 arch edentulous</i>	<i>With both arches edentulous</i>
Both sexes				Standard error					
All ages, 18-74 years	100.0	76.2	9.2	14.7	All ages, 18-74 years . . . . .	...	0.70	0.39	0.59
18-24 years	100.0	98.1	1.3	*0.6	18-24 years . . . . .	...	0.28	0.23	*0.17
25-34 years	100.0	91.5	5.3	3.2	25-34 years . . . . .	...	0.87	0.71	0.45
35-44 years	100.0	80.3	10.7	9.0	35-44 years . . . . .	...	1.11	0.77	0.76
45-54 years	100.0	70.9	13.1	16.0	45-54 years . . . . .	...	1.52	1.10	1.14
55-64 years	100.0	52.8	14.0	33.2	55-64 years . . . . .	...	2.22	1.32	1.98
65-74 years	100.0	39.1	15.4	45.5	65-74 years . . . . .	...	1.30	0.88	1.30
Men				Standard error					
All ages, 18-74 years	100.0	78.6	8.0	13.3	All ages, 18-74 years . . . . .	...	0.84	0.53	0.83
18-24 years	100.0	98.2	*1.1	*0.7	18-24 years . . . . .	...	0.64	*0.50	*0.30
25-34 years	100.0	93.0	4.3	*2.6	25-34 years . . . . .	...	1.12	0.89	*0.72
35-44 years	100.0	84.1	8.4	7.5	35-44 years . . . . .	...	1.70	1.26	1.22
45-54 years	100.0	74.1	10.8	15.1	45-54 years . . . . .	...	2.12	1.31	1.94
55-64 years	100.0	54.5	13.9	31.6	55-64 years . . . . .	...	2.78	1.94	2.58
65-74 years	100.0	40.9	15.5	43.6	65-74 years . . . . .	...	1.52	1.13	1.77
Women				Standard error					
All ages, 18-74 years	100.0	74.0	10.2	15.8	All ages, 18-74 years . . . . .	...	0.81	0.50	0.63
18-24 years	100.0	97.9	*1.5	*0.6	18-24 years . . . . .	...	0.45	*0.38	*0.21
25-34 years	100.0	90.1	6.1	3.8	25-34 years . . . . .	...	0.99	0.84	0.51
35-44 years	100.0	76.7	12.9	10.4	35-44 years . . . . .	...	1.25	1.03	0.87
45-54 years	100.0	68.0	15.2	16.9	45-54 years . . . . .	...	2.17	1.65	1.75
55-64 years	100.0	51.2	14.1	34.7	55-64 years . . . . .	...	2.86	1.75	2.52
65-74 years	100.0	37.7	15.3	47.0	65-74 years . . . . .	...	1.69	1.31	1.76

NOTE: Where an asterisk is printed next to the cell value, the number of cases for that cell was less than 30 or the relative standard error for the cell value was 25 percent or more.

Table 10. Percent distribution of white adults 18-74 years of age, by number of edentulous arches, according to sex and age, with standard errors of the percent: United States, 1971-74

<i>Sex and age</i>	<i>Total</i>	<i>With no arch edentulous</i>	<i>With 1 arch edentulous</i>	<i>With both arches edentulous</i>	<i>Sex and age</i>	<i>Total</i>	<i>With no arch edentulous</i>	<i>With 1 arch edentulous</i>	<i>With both arches edentulous</i>
Both sexes				Standard error					
All ages, 18-74 years	100.0	75.2	9.4	15.4	All ages, 18-74 years . . . . .	...	0.76	0.40	0.64
18-24 years	100.0	98.0	1.3	*0.7	18-24 years . . . . .	...	0.32	0.26	*0.20
25-34 years	100.0	91.3	5.4	3.3	25-34 years . . . . .	...	0.93	0.72	0.50
35-44 years	100.0	79.8	10.8	9.5	35-44 years . . . . .	...	1.02	0.73	0.84
45-54 years	100.0	69.3	13.6	17.1	45-54 years . . . . .	...	1.71	1.21	1.25
55-64 years	100.0	51.1	14.2	34.7	55-64 years . . . . .	...	2.26	1.32	2.09
65-74 years	100.0	38.8	15.2	45.9	65-74 years . . . . .	...	1.41	0.93	1.36
Men				Standard error					
All ages, 18-74 years	100.0	77.3	8.2	14.4	All ages, 18-74 years . . . . .	...	0.91	0.56	0.92
18-24 years	100.0	98.0	*1.2	*0.8	18-24 years . . . . .	...	0.74	*0.57	*0.34
25-34 years	100.0	92.6	*4.4	*2.9	25-34 years . . . . .	...	1.22	*0.95	*0.81
35-44 years	100.0	83.4	8.5	8.1	35-44 years . . . . .	...	1.72	1.23	1.36
45-54 years	100.0	72.1	11.3	16.6	45-54 years . . . . .	...	2.30	1.38	2.15
55-64 years	100.0	52.4	13.9	33.6	55-64 years . . . . .	...	2.90	2.05	2.78
65-74 years	100.0	39.4	15.5	45.1	65-74 years . . . . .	...	1.62	1.17	1.87
Women				Standard error					
All ages, 18-74 years	100.0	73.2	10.4	16.3	All ages, 18-74 years . . . . .	...	0.88	0.54	0.70
18-24 years	100.0	97.9	*1.4	*0.6	18-24 years . . . . .	...	0.49	*0.41	*0.24
25-34 years	100.0	90.0	6.3	3.6	25-34 years . . . . .	...	1.10	0.87	0.52
35-44 years	100.0	76.3	12.9	10.8	35-44 years . . . . .	...	1.40	1.12	0.99
45-54 years	100.0	66.8	15.7	17.5	45-54 years . . . . .	...	2.37	1.80	1.89
55-64 years	100.0	49.9	14.4	35.6	55-64 years . . . . .	...	2.97	1.81	2.73
65-74 years	100.0	38.4	15.1	46.5	65-74 years . . . . .	...	1.77	1.36	1.92

NOTE: Where an asterisk is printed next to the cell value, the number of cases for that cell was less than 30 or the relative standard error for the cell value was 25 percent or more.

Table 11. Percent distribution of black adults 18-74 years of age, by number of edentulous arches, according to sex and age, with standard errors of the percent: United States, 1971-74

Sex and age	Total	With no arch edentulous	With 1 arch edentulous	With both arches edentulous	Sex and age	Total	With no arch edentulous	With 1 arch edentulous	With both arches edentulous				
Both sexes				Percent distribution						Standard error			
All ages, 18-74 years	100.0	82.8	8.1	9.1	All ages, 18-74 years	...	1.52	1.17	0.71				
18-24 years	100.0	98.5	*1.4	*0.1	18-24 years	...	0.85	*0.85	*0.06				
25-34 years	100.0	92.4	*4.7	*2.9	25-34 years	...	1.84	*1.93	*0.99				
35-44 years	100.0	82.2	*11.6	6.2	35-44 years	...	4.29	*3.32	1.51				
45-54 years	100.0	83.9	*8.8	*7.3	45-54 years	...	2.25	*1.85	*1.66				
55-64 years	100.0	67.0	*13.3	19.8	55-64 years	...	5.62	*4.30	3.85				
65-74 years	100.0	40.7	17.1	42.3	65-74 years	...	2.83	1.84	2.69				
Men				Percent distribution						Standard error			
All ages, 18-74 years	100.0	88.9	*6.7	4.4	All ages, 18-74 years	...	1.89	*1.76	0.55				
18-24 years	100.0	99.7	*0.3	-	18-24 years	...	0.37	*0.37	-				
25-34 years	100.0	95.8	*4.2	-	25-34 years	...	3.42	*3.42	-				
35-44 years	100.0	88.6	*8.0	*3.4	35-44 years	...	5.69	*4.93	*1.67				
45-54 years	100.0	92.2	*6.1	*1.7	45-54 years	...	2.85	*2.76	*0.97				
55-64 years	100.0	75.3	*15.3	*9.4	55-64 years	...	7.71	*7.28	*3.17				
65-74 years	100.0	56.0	16.2	27.9	65-74 years	...	5.12	3.46	3.05				
Women				Percent distribution						Standard error			
All ages, 18-74 years	100.0	78.1	9.1	12.8	All ages, 18-74 years	...	1.85	1.20	1.12				
18-24 years	100.0	97.6	*2.3	*0.1	18-24 years	...	1.44	*1.43	*0.10				
25-34 years	100.0	89.8	*5.1	*5.1	25-34 years	...	2.08	*1.76	*1.74				
35-44 years	100.0	77.2	14.4	*8.3	35-44 years	...	4.47	3.56	*2.35				
45-54 years	100.0	76.8	*11.2	*12.0	45-54 years	...	3.97	*3.15	*3.04				
55-64 years	100.0	60.3	*11.6	*28.1	55-64 years	...	6.93	*3.59	*6.48				
65-74 years	100.0	29.2	17.7	53.0	65-74 years	...	3.05	2.68	3.61				

NOTE: Where an asterisk is printed next to the cell value, the number of cases for that cell was less than 30 or the relative standard error for the cell value was 25 percent or more.

Table 12. Percent distribution of dentulous adults 18-74 years of age, by number of decayed (D), missing (M), and filled (F) permanent teeth, according to sex, with standard errors of the percent: United States, 1971-74

Number of teeth	Both sexes	Men	Women	Both sexes	Men	Women	Number of teeth	Both sexes	Men	Women	Both sexes	Men	Women
Percent distribution						Standard error							
DMF teeth	100.0	100.0	100.0	...	...	...	D teeth—Con.	0.5	*0.5	0.4	0.08	*0.14	0.08
0	1.3	1.6	1.1	0.18	0.26	0.18	10	*0.2	*0.2	*0.3	*0.06	*0.08	*0.09
1	0.8	0.9	0.7	0.12	0.17	0.18	11	0.7	0.9	0.6	0.11	0.18	0.13
2	1.1	1.2	1.0	0.15	0.22	0.15	M teeth	100.0	100.0	100.0	...	...	...
3	1.1	1.4	0.8	0.12	0.16	0.15	0	20.9	22.1	19.7	0.56	0.80	0.63
4	1.6	1.8	1.3	0.19	0.34	0.15	1	6.9	7.2	6.6	0.38	0.51	0.45
5	2.0	2.2	1.8	0.16	0.29	0.20	2	5.8	5.6	6.0	0.24	0.50	0.42
6	2.4	2.5	2.2	0.15	0.24	0.25	3	5.3	6.0	4.6	0.26	0.47	0.31
7	2.6	2.6	2.6	0.20	0.33	0.20	4	8.9	8.7	9.1	0.39	0.58	0.52
8	3.6	3.7	3.5	0.19	0.28	0.27	5	6.3	6.5	6.0	0.30	0.56	0.39
9	3.1	3.0	3.3	0.26	0.47	0.26	6	5.4	5.2	5.6	0.30	0.45	0.45
10	2.9	3.2	2.6	0.20	0.39	0.21	7 or more	40.5	38.6	42.4	0.75	0.96	0.88
11	3.6	3.7	3.5	0.21	0.38	0.27	F teeth	100.0	100.0	100.0	...	...	...
12	3.7	3.9	3.4	0.22	0.37	0.26	0	18.1	19.1	17.1	0.59	0.83	0.68
13	4.1	4.7	3.5	0.24	0.48	0.27	1	4.9	4.5	5.3	0.26	0.39	0.40
14	4.0	4.2	3.7	0.25	0.40	0.27	2	4.5	4.6	4.5	0.27	0.36	0.37
15	4.0	3.9	4.2	0.25	0.46	0.33	3	4.1	4.4	3.9	0.29	0.45	0.32
16	4.4	4.8	4.0	0.29	0.49	0.33	4	4.4	4.6	4.1	0.28	0.41	0.32
17	3.8	4.0	3.7	0.23	0.40	0.26	5	3.9	3.9	4.0	0.25	0.41	0.31
18	4.4	4.5	4.3	0.31	0.46	0.35	6	3.8	4.2	3.5	0.23	0.47	0.30
19	4.8	4.6	4.9	0.27	0.42	0.33	7	4.5	4.3	4.8	0.31	0.34	0.43
20	4.6	4.3	4.9	0.23	0.43	0.36	8	4.9	5.1	4.7	0.27	0.42	0.34
21 or more	36.1	33.1	38.9	0.92	1.04	1.08	9	5.1	5.2	5.0	0.28	0.43	0.35
D teeth	100.0	100.0	100.0	...	...	...	10	4.8	5.2	4.4	0.29	0.48	0.39
0	52.7	50.1	55.2	1.53	1.73	1.53	11	4.2	4.4	4.1	0.26	0.44	0.28
1	17.8	18.8	17.0	0.60	0.95	0.55	12	4.5	4.5	4.6	0.23	0.38	0.33
2	9.9	10.8	9.1	0.53	0.72	0.53	13	4.9	4.9	4.8	0.28	0.42	0.36
3	6.0	5.9	6.1	0.39	0.60	0.45	14	3.8	3.2	4.3	0.20	0.30	0.32
4	4.1	4.4	3.8	0.32	0.40	0.40	15	3.4	2.8	4.0	0.22	0.32	0.26
5	2.9	3.1	2.8	0.25	0.41	0.24	16	3.8	4.0	3.7	0.29	0.47	0.35
6	2.0	1.9	2.1	0.19	0.27	0.23	17 or more	12.2	11.1	13.3	0.66	0.78	0.77
7	1.4	1.4	1.3	0.15	0.21	0.19							
8	1.1	*1.5	0.8	0.22	*0.39	0.16							
9	0.6	0.6	0.5	0.08	0.13	0.08							

NOTES: Filled teeth include only teeth with satisfactory fillings. Decayed teeth include not only teeth with caries but also filled teeth with carious lesions or defective fillings. Missing teeth include both missing and nonfunctional teeth. DMF is the total of these 3 categories.

Table 13. Number of decayed, missing, and filled (DMF) teeth per 100 erupted permanent teeth among children 6-11 years of age, by race, sex, and age, with standard errors of the estimates: United States, 1971-74

Sex and age	All races ¹			All races ¹		
	White	Black		White	Black	
Both sexes						
	Number of teeth			Standard error		
All ages, 6-11 years . . .	11.9	12.0	11.3	0.41	0.42	0.79
6 years	4.5	4.9	*3.5	0.85	1.05	*1.74
7 years	6.0	6.1	*5.4	0.74	0.85	*1.58
8 years	10.7	10.6	10.9	1.04	1.12	1.94
9 years	14.6	14.3	16.5	0.79	0.77	2.23
10 years	14.1	14.4	12.1	0.83	0.87	1.63
11 years	12.4	12.7	11.5	0.66	0.74	1.35
Boys						
All ages, 6-11 years . . .	11.6	11.7	11.0	0.48	0.51	1.07
6 years	*5.1	*4.8	*6.0	*1.56	*1.78	*3.80
7 years	5.8	5.3	*8.2	1.16	1.28	*3.72
8 years	10.9	11.5	*6.6	1.52	1.62	*2.93
9 years	13.4	12.5	17.1	1.15	1.37	2.54
10 years	14.2	14.5	*10.6	0.89	0.98	*2.99
11 years	12.1	12.6	10.3	0.95	1.07	1.86
Girls						
All ages, 6-11 years . . .	12.1	12.3	11.5	0.56	0.57	1.06
6 years	*4.0	*4.9	*1.4	*1.18	*1.54	*0.56
7 years	6.3	6.9	*2.7	0.87	0.95	*1.07
8 years	10.4	9.7	13.9	1.09	1.17	2.66
9 years	15.7	15.7	*15.6	1.11	1.15	*3.68
10 years	14.1	14.3	13.3	1.19	1.25	2.46
11 years	12.8	12.8	12.6	0.88	1.07	1.94

¹Includes data for "other races," which are not shown separately.

NOTES: Filled teeth include only teeth with satisfactory fillings. Decayed teeth include not only teeth with caries but also filled teeth with carious lesions or defective fillings. Missing teeth include both missing and nonfunctional teeth. DMF is the total of these 3 categories.

Where an asterisk is printed next to the cell value, the number of cases for that cell was less than 30 or the relative standard error for the cell value was 25 percent or more.

Table 14. Number of decayed, missing, and filled (DMF) teeth per 100 erupted permanent teeth among youths 12-17 years of age, by race, sex, and age, with standard errors of the estimates: United States, 1971-74

Sex and age	All races ¹			All races ¹		
	White	Black		White	Black	
Both sexes						
	Number of teeth			Standard error		
All ages, 12-17 years . .	22.5	22.9	20.5	0.51	0.54	1.58
12 years	15.1	15.3	13.8	0.79	0.84	1.57
13 years	18.4	18.6	17.1	0.85	0.91	2.01
14 years	20.9	20.8	22.1	1.05	0.96	3.95
15 years	22.4	22.3	22.5	1.04	1.12	3.39
16 years	27.4	28.2	21.5	1.27	1.46	2.78
17 years	30.3	30.8	26.2	1.06	1.07	2.78
Males						
All ages, 12-17 years . .	20.9	21.2	18.5	0.61	0.60	1.65
12 years	15.7	16.1	12.8	1.08	1.22	2.14
13 years	17.9	17.4	20.5	1.27	1.29	2.87
14 years	18.4	18.3	18.8	1.18	1.29	2.46
15 years	19.4	19.8	15.3	1.28	1.33	3.48
16 years	25.3	26.2	20.2	1.69	1.89	4.35
17 years	28.1	28.6	24.5	1.36	1.43	4.67
Females						
All ages, 12-17 years . .	24.2	24.5	22.5	0.78	0.87	2.27
12 years	14.3	14.2	14.9	1.35	1.38	2.92
13 years	18.9	19.7	13.9	1.11	1.22	2.56
14 years	23.5	23.3	*25.5	1.62	1.49	*7.49
15 years	25.4	24.8	27.6	1.44	1.55	4.42
16 years	29.3	30.0	23.1	2.52	2.76	3.45
17 years	32.8	33.4	27.8	1.77	1.89	3.35

¹Includes data for "other races," which are not shown separately.

NOTES: Filled teeth include only teeth with satisfactory fillings. Decayed teeth include not only teeth with caries but also filled teeth with carious lesions or defective fillings. Missing teeth include both missing and nonfunctional teeth. DMF is the total of these 3 categories.

Where an asterisk is printed next to the cell value, the number of cases for that cell was less than 30 or the relative standard error for the cell value was 25 percent or more.

Table 15. Average number of decayed (D), missing (M), and filled (F) teeth per person among dentulous and edentulous adults 18-74 years of age, by race, sex, and age, with standard errors of the estimates: United States, 1971-74

Sex and age	DMF teeth			D teeth			M teeth			F teeth		
	All races ¹	White	Black	All races^{1}	White	Black	All races^{1}	White	Black	All races^{1}	White	Black
Both sexes												
Number of teeth												
All ages, 18-74 years	19.2	19.7	15.0	1.2	1.1	2.3	11.0	11.1	10.7	6.9	7.5	2.1
18-24 years	10.9	11.1	9.2	2.0	1.8	3.8	1.9	1.8	3.0	6.9	7.5	2.4
25-34 years	15.9	16.2	13.6	1.7	1.5	3.2	5.4	5.2	7.5	8.8	9.5	3.0
35-44 years	20.4	20.9	16.7	1.1	0.9	2.0	11.2	11.0	12.5	8.2	8.9	2.1
45-54 years	21.8	22.6	15.2	0.8	0.7	1.3	14.0	14.3	12.0	7.0	7.6	1.9
55-64 years	24.7	25.4	18.2	0.6	0.6	1.1	19.0	19.3	16.2	5.1	5.5	0.9
65-74 years	26.7	26.9	25.0	0.3	0.3	0.6	22.8	22.8	23.8	3.5	3.8	0.6
Men												
All ages, 18-74 years	18.5	19.1	13.4	1.3	1.2	2.3	10.4	10.6	9.2	6.8	7.4	1.9
18-24 years	10.7	11.0	8.5	2.2	2.0	4.2	1.9	1.8	2.6	6.6	7.2	1.7
25-34 years	15.3	15.6	13.0	1.8	1.7	3.0	4.9	4.8	6.4	8.7	9.3	3.6
35-44 years	19.4	19.9	15.1	1.1	1.1	2.1	10.2	10.1	11.2	8.1	8.8	1.9
45-54 years	21.2	22.2	11.9	0.8	0.8	1.2	13.3	13.8	9.4	7.0	7.6	*1.3
55-64 years	24.3	25.0	16.2	0.7	0.6	0.8	18.6	19.1	14.5	5.0	5.3	*0.9
65-74 years	26.3	26.7	23.0	0.4	0.4	0.9	22.8	22.9	21.5	3.1	3.4	0.6
Women												
All ages, 18-74 years	19.7	20.2	16.3	1.1	0.9	2.3	11.6	11.6	11.8	7.1	7.7	2.2
18-24 years	11.1	11.3	9.8	1.9	1.6	3.5	2.0	1.8	3.3	7.2	7.8	3.0
25-34 years	16.4	16.8	14.0	1.6	1.4	3.3	6.0	5.7	8.2	8.8	9.7	2.5
35-44 years	21.3	21.8	17.8	1.0	0.8	2.0	12.1	12.0	13.6	8.2	9.1	2.2
45-54 years	22.5	23.0	18.0	0.8	0.7	1.4	14.7	14.7	14.2	7.1	7.6	*2.4
55-64 years	25.2	25.8	19.8	0.5	0.5	1.2	19.3	19.6	17.7	5.3	5.7	*0.9
65-74 years	27.0	27.0	26.5	0.3	0.2	0.4	22.9	22.6	25.5	3.8	4.1	0.5
Both sexes												
Standard error												
All ages, 18-74 years	0.15	0.15	0.44	0.05	0.05	0.16	0.20	0.21	0.40	0.15	0.17	0.17
18-24 years	0.23	0.25	0.64	0.13	0.11	0.45	0.11	0.12	0.30	0.18	0.20	0.30
25-34 years	0.27	0.29	0.71	0.08	0.08	0.23	0.32	0.33	0.64	0.22	0.25	0.38
35-44 years	0.25	0.23	0.85	0.06	0.07	0.17	0.27	0.27	0.87	0.20	0.22	0.29
45-54 years	0.20	0.21	0.69	0.06	0.06	0.21	0.35	0.39	0.76	0.27	0.29	0.45
55-64 years	0.31	0.30	1.17	0.06	0.06	0.18	0.51	0.52	1.22	0.30	0.33	0.15
65-74 years	0.15	0.16	0.53	0.02	0.02	0.08	0.29	0.31	0.61	0.21	0.23	0.09
Men												
All ages, 18-74 years	0.17	0.18	0.59	0.06	0.06	0.21	0.24	0.26	0.47	0.18	0.20	0.25
18-24 years	0.31	0.36	0.94	0.17	0.15	0.63	0.21	0.23	0.33	0.31	0.36	0.43
25-34 years	0.35	0.36	1.11	0.14	0.13	0.43	0.36	0.37	1.03	0.34	0.37	0.85
35-44 years	0.39	0.38	1.17	0.09	0.10	0.32	0.39	0.42	1.18	0.35	0.36	0.47
45-54 years	0.32	0.33	1.07	0.10	0.10	0.22	0.54	0.60	0.93	0.33	0.35	*0.34
55-64 years	0.35	0.34	1.77	0.09	0.10	0.17	0.63	0.66	1.68	0.36	0.40	*0.25
65-74 years	0.24	0.25	0.73	0.03	0.03	0.15	0.36	0.38	0.81	0.19	0.21	0.12
Women												
All ages, 18-74 years	0.18	0.18	0.43	0.05	0.04	0.18	0.22	0.23	0.45	0.16	0.18	0.17
18-24 years	0.26	0.26	0.74	0.13	0.12	0.46	0.17	0.19	0.45	0.15	0.16	0.34
25-34 years	0.27	0.30	0.70	0.07	0.07	0.23	0.34	0.38	0.65	0.22	0.26	0.21
35-44 years	0.25	0.26	0.80	0.06	0.06	0.21	0.32	0.35	0.87	0.25	0.28	0.26
45-54 years	0.34	0.33	1.03	0.07	0.06	0.28	0.47	0.50	1.07	0.35	0.39	*0.82
55-64 years	0.41	0.38	1.49	0.06	0.05	0.28	0.65	0.67	1.66	0.40	0.44	*0.24
65-74 years	0.21	0.23	0.60	0.02	0.02	0.07	0.38	0.41	0.68	0.27	0.30	0.11

¹ Includes data for "other races," which are not shown separately.

NOTES: Filled teeth include only those with satisfactory fillings. Decayed teeth include not only teeth with caries but also filled teeth with carious lesions or defective fillings. Missing teeth include both missing and nonfunctional teeth. DMF is the total of these 3 categories. Where an asterisk is printed next to the cell value, the number of cases for that cell was less than 30 or the relative standard error for the cell value was 25 percent or more.

Table 16. Average number of decayed (D), missing (M), and filled (F) permanent teeth per child among children 6-11 years of age, by sex, race, and family income, with standard errors of the estimates: United States, 1971-74

Race and family income	DMF teeth			D teeth			M teeth			F teeth		
	Both sexes	Boys	Girls	Both sexes	Boys	Girls	Both sexes	Boys	Girls	Both sexes	Boys	Girls
All races ¹												
	Number of teeth											
Less than \$3,000	1.5	1.4	1.6	0.9	0.9	0.9	*0.2	*0.3	*0.1	0.4	*0.3	*0.5
\$3,000-\$4,999	1.7	1.6	1.7	0.8	0.9	0.8	*0.2	*0.3	*0.1	0.6	0.5	*0.8
\$5,000-\$6,999	1.8	1.7	1.8	1.0	1.0	1.1	*0.2	*0.2	*0.1	0.6	*0.5	0.6
\$7,000-\$9,999	1.6	1.6	1.7	0.8	0.8	0.8	0.1	0.2	*0.1	0.7	0.6	0.8
\$10,000-\$14,999	1.5	1.4	1.7	0.5	0.5	0.5	0.1	*0.1	*0.1	0.9	0.7	1.0
\$15,000 or more	1.6	1.7	1.6	0.4	0.4	*0.3	*0.1	*0.2	*0.1	1.2	1.1	1.2
Unknown	1.9	*1.1	*3.0	*0.8	*0.6	*1.0	*0.2	*0.0	*0.3	*1.0	*0.4	*1.7
White												
Less than \$3,000	1.3	1.2	1.3	0.7	*0.7	*0.7	*0.2	*0.3	*0.1	*0.3	*0.3	*0.5
\$3,000-\$4,999	1.7	1.7	1.6	0.8	0.9	*0.7	*0.2	*0.3	*0.1	0.7	*0.5	*0.9
\$5,000-\$6,999	1.8	1.5	2.0	1.0	0.8	1.2	*0.1	*0.1	*0.2	*0.6	*0.6	*0.6
\$7,000-\$9,999	1.7	1.6	1.7	0.8	0.8	0.7	0.1	*0.2	*0.1	0.8	0.6	0.9
\$10,000-\$14,999	1.5	1.4	1.7	0.5	0.5	0.5	*0.1	*0.1	*0.1	0.9	0.8	1.1
\$15,000 or more	1.5	1.6	1.5	0.3	0.4	*0.3	*0.1	*0.1	*0.1	1.1	1.2	1.1
Unknown	*2.1	*1.2	*3.3	*0.6	*0.6	*0.6	*0.2	*0.0	*0.4	*1.3	*0.6	*2.3
Black												
Less than \$3,000	1.7	1.7	1.8	1.0	1.0	1.1	*0.2	*0.3	*0.1	*0.5	*0.4	*0.6
\$3,000-\$4,999	1.7	*1.5	1.9	0.9	*0.8	1.1	*0.3	*0.3	*0.2	*0.5	*0.4	*0.6
\$5,000-\$6,999	1.8	*2.5	*1.3	1.0	1.6	*0.5	*0.4	*0.7	*0.1	*0.4	*0.2	*0.6
\$7,000-\$9,999	1.3	1.3	*1.4	0.9	*0.8	*0.9	*0.2	*0.2	*0.3	*0.2	*0.3	*0.1
\$10,000-\$14,999	*1.1	*0.5	*2.1	*0.7	*0.3	*1.3	*0.1	*0.1	*0.2	*0.3	*0.1	*0.6
\$15,000 or more	*2.8	*3.9	*2.5	*0.6	*1.0	*0.5	*0.6	*2.7	*0.0	*1.5	*0.2	*1.9
Unknown	*1.6	*0.7	*2.3	*1.2	*0.7	*1.7	*0.1	-	*0.2	*0.3	-	*0.5
All races ¹												
	Standard error											
Less than \$3,000	0.14	0.18	0.24	0.11	0.16	0.16	*0.06	*0.09	*0.04	0.09	*0.09	*0.19
\$3,000-\$4,999	0.12	0.21	0.27	0.11	0.13	0.19	*0.06	*0.11	*0.05	0.12	0.12	*0.23
\$5,000-\$6,999	0.13	0.24	0.17	0.12	0.17	0.15	*0.07	*0.13	*0.06	0.13	*0.20	0.15
\$7,000-\$9,999	0.12	0.16	0.16	0.07	0.11	0.08	0.03	0.04	*0.04	0.09	0.08	0.15
\$10,000-\$14,999	0.10	0.12	0.13	0.06	0.07	0.08	0.03	*0.04	*0.03	0.08	0.10	0.11
\$15,000 or more	0.15	0.20	0.20	0.07	0.09	*0.08	*0.04	*0.07	*0.03	0.12	0.18	0.15
Unknown	0.33	*0.34	*0.61	*0.23	*0.32	*0.39	*0.11	*0.02	*0.32	*0.29	*0.21	*0.65
White												
Less than \$3,000	0.16	0.26	0.22	0.14	*0.23	*0.22	*0.10	*0.14	*0.08	*0.12	*0.13	*0.21
\$3,000-\$4,999	0.16	0.23	0.34	0.14	0.16	*0.24	*0.07	*0.12	*0.06	0.16	*0.14	*0.30
\$5,000-\$6,999	0.15	0.25	0.21	0.15	0.20	0.21	*0.05	*0.05	*0.07	*0.17	*0.25	*0.18
\$7,000-\$9,999	0.12	0.17	0.18	0.08	0.11	0.10	0.03	*0.04	*0.03	0.10	0.10	0.18
\$10,000-\$14,999	0.11	0.13	0.13	0.06	0.07	0.08	*0.03	*0.04	*0.03	0.08	0.10	0.12
\$15,000 or more	0.14	0.19	0.19	0.07	0.08	*0.09	*0.02	*0.03	*0.03	0.12	0.18	0.16
Unknown	*0.42	*0.52	*0.73	*0.21	*0.48	*0.26	*0.17	*0.04	*0.63	*0.39	*0.31	*0.88
Black												
Less than \$3,000	0.22	0.26	0.38	0.17	0.22	0.22	*0.07	*0.13	*0.05	*0.15	*0.16	*0.28
\$3,000-\$4,999	0.30	*0.45	0.37	0.18	*0.22	0.25	*0.12	*0.23	*0.08	*0.18	*0.26	*0.28
\$5,000-\$6,999	0.43	*0.75	*0.45	0.17	0.37	*0.14	*0.27	*0.59	*0.09	*0.28	*0.13	*0.47
\$7,000-\$9,999	0.27	0.33	*0.45	0.17	*0.24	*0.29	*0.12	*0.09	*0.22	*0.09	*0.13	*0.12
\$10,000-\$14,999	*0.31	*0.26	*0.56	*0.24	*0.16	*0.53	*0.09	*0.14	*0.17	*0.19	*0.11	*0.44
\$15,000 or more	*0.85	*2.95	*0.85	*0.30	*1.03	*0.27	*0.67	*3.09	*0.03	*0.61	*0.34	*0.75
Unknown	*0.71	*0.66	*0.91	*0.61	*0.66	*0.83	*0.12	-	*0.20	*0.34	-	*0.54

¹ Includes data for "other races," which are not shown separately.

NOTES: Filled teeth include only those with satisfactory fillings. Decayed teeth include not only teeth with caries but also filled teeth with carious lesions or defective fillings. Missing teeth include both missing and nonfunctional teeth. DMF is the total of these 3 categories.

Where an asterisk is printed next to the cell value, the number of cases for that cell was less than 30 or the relative standard error for the cell value was 25 percent or more.

Table 17. Average number of decayed (D), missing (M), and filled (F) permanent teeth per child among children 6-11 years of age, by sex, race, and education of head of household, with standard errors of the estimates: United States, 1971-74

Race and education	DMF teeth			D teeth			M teeth			F teeth		
	Both sexes	Boys	Girls	Both sexes	Boys	Girls	Both sexes	Boys	Girls	Both sexes	Boys	Girls
All races ¹												
Number of teeth												
None or less than 5 years	1.9	1.6	2.1	1.0	1.0	*1.0	*0.1	*0.3	*0.0	*0.7	*0.4	*1.0
5-7 years	1.9	1.7	2.0	1.2	1.2	1.2	*0.3	*0.3	*0.3	*0.4	*0.2	*0.5
8 years	1.9	1.8	2.1	1.0	1.0	*0.9	*0.1	*0.2	*0.1	*0.8	0.6	*1.1
9-11 years	1.9	1.8	2.0	0.8	0.8	0.9	0.2	*0.3	*0.1	0.9	0.7	1.0
12 years	1.5	1.5	1.5	0.6	0.6	0.6	0.1	*0.1	*0.1	0.8	0.7	0.8
13-15 years	1.3	1.4	1.3	0.4	0.4	0.4	*0.1	*0.1	*0.0	0.8	0.8	0.9
16 years	1.4	1.1	1.8	*0.1	*0.2	*0.1	*0.1	*0.1	*0.1	1.2	*0.8	1.6
17 years or more	1.6	1.6	1.6	*0.4	*0.5	*0.3	*0.1	*0.1	*0.1	1.1	*1.0	1.2
Unknown	1.8	*1.7	*1.8	*1.2	*1.0	*1.3	*0.1	*0.1	*0.1	*0.5	*0.6	*0.3
White												
None or less than 5 years	1.9	*1.5	2.1	0.9	*0.8	*0.9	*0.1	*0.3	*0.0	*0.9	*0.4	*1.2
5-7 years	1.8	1.6	2.1	1.2	1.2	1.3	*0.2	*0.2	*0.2	*0.4	*0.3	*0.6
8 years	2.0	1.8	2.2	1.0	1.0	*0.9	*0.1	*0.1	*0.1	*1.0	*0.7	*1.2
9-11 years	1.9	1.8	1.9	0.8	0.8	0.8	*0.1	*0.2	*0.1	1.0	0.9	1.1
12 years	1.5	1.5	1.5	0.6	0.6	0.5	0.1	*0.1	*0.1	0.8	0.7	0.9
13-15 years	1.3	1.3	1.3	0.4	0.4	*0.4	*0.1	*0.1	*0.0	0.8	0.8	0.9
16 years	1.4	1.1	1.8	*0.1	*0.1	*0.1	*0.1	*0.1	*0.1	1.2	*0.8	1.7
17 years or more	1.6	*1.7	1.5	*0.3	*0.4	*0.3	*0.2	*0.2	*0.1	1.1	*1.1	*1.1
Unknown	*1.6	*1.4	*1.8	*0.9	*0.6	*1.2	*0.2	*0.2	*0.2	*0.6	*0.6	*0.4
Black												
None or less than 5 years	*1.9	*1.8	*1.9	*1.3	*1.3	*1.4	*0.2	*0.3	*0.1	*0.3	*0.2	*0.4
5-7 years	1.9	*1.9	*1.9	1.1	*1.2	*1.0	*0.6	*0.7	*0.5	*0.2	*0.0	*0.4
8 years	*1.6	1.6	*1.5	*1.0	*1.1	*0.8	*0.3	*0.3	*0.2	*0.4	*0.2	*0.6
9-11 years	1.7	1.4	2.0	0.9	0.8	1.1	*0.3	*0.5	*0.2	*0.5	*0.2	*0.7
12 years	1.5	*1.5	1.5	0.8	*0.8	*0.8	*0.2	*0.4	*0.0	*0.5	*0.3	*0.7
13-15 years	*1.4	*1.7	*1.1	*0.5	*0.3	*0.8	-	-	-	*0.9	*1.5	*0.3
16 years	*1.2	*1.2	*1.2	*0.4	*1.2	*0.1	-	-	-	*0.8	-	*1.1
17 years or more	*1.0	-	*4.0	-	-	-	-	-	-	*1.0	-	*4.0
Unknown	*1.9	*1.7	*2.2	*1.9	*1.7	*2.1	*0.1	-	*0.1	-	-	-
All races ¹												
Standard error												
None or less than 5 years	0.24	0.20	0.38	0.18	0.21	0.29	0.05	0.09	0.03	0.20	0.11	0.30
5-7 years	0.18	0.24	0.29	0.11	0.15	0.20	0.10	0.16	0.13	0.10	0.07	0.18
8 years	0.25	0.22	0.39	0.16	0.18	0.23	0.04	0.07	0.05	0.22	0.15	0.37
9-11 years	0.13	0.18	0.17	0.09	0.11	0.14	0.04	0.08	0.03	0.10	0.16	0.13
12 years	0.08	0.11	0.12	0.06	0.07	0.07	0.03	0.04	0.03	0.06	0.08	0.09
13-15 years	0.15	0.18	0.26	0.06	0.10	0.09	0.02	0.04	0.01	0.11	0.13	0.21
16 years	0.21	0.24	0.35	0.05	0.09	0.04	0.05	0.06	0.08	0.23	0.30	0.35
17 years or more	0.22	0.36	0.28	0.10	0.17	0.10	0.08	0.09	0.16	0.22	0.31	0.29
Unknown	0.41	0.82	0.53	0.30	0.61	0.46	0.08	0.16	0.11	0.17	0.24	0.23
White												
None or less than 5 years	0.26	0.25	0.40	0.18	0.16	0.32	0.07	0.15	0.02	0.27	0.18	0.36
5-7 years	0.20	0.23	0.40	0.17	0.21	0.31	0.05	0.08	0.08	0.14	0.11	0.24
8 years	0.29	0.30	0.44	0.19	0.25	0.24	0.04	0.06	0.04	0.27	0.20	0.45
9-11 years	0.13	0.19	0.18	0.11	0.14	0.16	0.04	0.07	0.04	0.12	0.20	0.15
12 years	0.09	0.12	0.12	0.07	0.08	0.08	0.02	0.03	0.03	0.07	0.09	0.10
13-15 years	0.16	0.17	0.28	0.07	0.11	0.09	0.02	0.04	0.01	0.12	0.13	0.23
16 years	0.22	0.25	0.36	0.06	0.10	0.05	0.05	0.07	0.08	0.25	0.31	0.37
17 years or more	0.26	0.42	0.30	0.13	0.20	0.11	0.09	0.10	0.16	0.23	0.33	0.31
Unknown	0.42	0.74	0.65	0.29	0.52	0.52	0.12	0.24	0.15	0.18	0.28	0.33
Black												
None or less than 5 years	0.66	0.64	0.91	0.50	0.53	0.61	0.07	0.16	0.05	0.22	0.22	0.27
5-7 years	0.45	0.69	0.53	0.22	0.31	0.31	0.29	0.51	0.30	0.10	0.03	0.19
8 years	0.43	0.31	0.89	0.36	0.32	0.67	0.15	0.20	0.19	0.26	0.15	0.54
9-11 years	0.25	0.33	0.30	0.13	0.19	0.21	0.12	0.22	0.05	0.13	0.09	0.27
12 years	0.26	0.42	0.32	0.15	0.22	0.23	0.16	0.32	0.04	0.17	0.15	0.27
13-15 years	0.55	0.92	0.62	0.19	0.15	0.45	-	-	-	0.47	0.79	0.24
16 years	0.98	1.07	1.35	0.62	1.07	0.29	-	-	-	0.94	-	1.39
17 years or more	1.33	-	2.83	-	-	-	-	-	-	1.33	-	2.83
Unknown	0.83	1.27	1.27	0.81	1.27	1.29	0.07	-	0.22	-	-	-

¹Includes data for "other races," which are not shown separately.

NOTES: Filled teeth include only those with satisfactory fillings. Decayed teeth include not only teeth with caries but also filled teeth with carious lesions or defective fillings. Missing teeth include both missing and nonfunctional teeth. DMF is the total of these 3 categories. Where an asterisk is printed next to the cell value, the number of cases for that cell was less than 30 or the relative standard error for the cell value was 25 percent or more.

Table 18. Average number of decayed (D), missing (M), and filled (F) permanent teeth per person among youths 12-17 years of age, by sex, race, and family income, with standard errors of the estimates: United States, 1971-74

Race and family income	DMF teeth			D teeth			M teeth			F teeth		
	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females
All races ¹												
Number of teeth												
Less than \$3,000	6.1	5.4	6.7	2.8	2.8	2.9	1.0	1.0	1.1	2.3	*1.7	2.8
\$3,000-\$4,999	6.3	5.7	6.8	2.4	2.4	2.4	*1.2	0.7	*1.7	2.7	2.6	2.7
\$5,000-\$6,999	7.0	6.1	7.8	2.4	2.7	2.1	*1.5	0.9	*2.1	3.1	2.5	3.6
\$7,000-\$9,999	6.1	5.6	6.6	2.2	2.0	2.3	0.8	0.6	1.0	3.2	3.0	3.3
\$10,000-\$14,999	6.0	5.4	6.6	1.6	1.4	1.8	0.5	0.3	0.7	3.9	3.7	4.1
\$15,000 or more	6.2	5.9	6.7	1.1	1.1	1.1	0.3	*0.2	0.3	4.9	4.5	5.3
Unknown	5.9	6.5	5.1	1.6	1.9	*1.3	*0.5	*0.6	*0.2	3.8	3.9	3.6
White												
Less than \$3,000	6.9	6.1	7.4	2.5	*2.3	*2.6	0.9	*0.9	*0.9	3.4	*2.9	*3.8
\$3,000-\$4,999	6.5	5.4	7.7	2.2	2.2	2.2	*1.2	0.5	*2.0	3.0	2.6	3.4
\$5,000-\$6,999	6.8	6.0	7.5	2.1	2.4	1.8	*0.9	*0.8	*1.1	3.7	2.7	4.6
\$7,000-\$9,999	6.2	5.7	6.7	2.0	1.8	2.2	0.7	0.6	0.9	3.5	3.3	3.6
\$10,000-\$14,999	6.0	5.5	6.6	1.6	1.4	1.7	0.5	0.3	0.6	4.0	3.8	4.2
\$15,000 or more	6.3	5.9	6.8	1.0	1.0	1.0	0.2	*0.2	*0.3	5.1	4.7	5.5
Unknown	6.0	6.7	*5.3	1.4	1.5	*1.3	*0.4	*0.4	*0.3	4.3	4.7	*3.7
Black												
Less than \$3,000	5.3	4.8	5.9	3.1	3.1	3.2	1.1	1.0	1.3	*1.0	*0.7	*1.4
\$3,000-\$4,999	5.5	5.8	5.2	3.0	3.2	2.8	1.0	1.0	*1.1	*1.4	1.6	*1.3
\$5,000-\$6,999	*8.0	6.8	*8.8	3.4	3.8	*3.1	*3.9	*1.6	*5.3	*0.8	*1.3	*0.5
\$7,000-\$9,999	5.4	4.7	6.0	3.1	2.9	3.2	0.9	*0.6	1.2	1.4	*1.3	1.6
\$10,000-\$14,999	5.7	*4.2	*7.5	2.7	*2.0	*3.6	*1.1	*0.5	*1.9	*1.8	*1.7	*2.0
\$15,000 or more	*5.0	*4.7	*5.3	*2.8	*2.8	*2.8	*1.0	*0.6	*1.4	*1.2	*1.3	*1.1
Unknown	*5.2	*5.6	*1.8	*3.5	*3.8	*1.0	*1.3	*1.5	-	*0.4	*0.3	*0.8
All races ¹												
Standard error												
Less than \$3,000	0.56	0.84	0.77	0.34	0.55	0.43	0.11	0.20	0.19	0.46	*0.54	0.67
\$3,000-\$4,999	0.57	0.54	0.91	0.23	0.29	0.35	*0.41	0.08	*0.81	0.39	0.49	0.53
\$5,000-\$6,999	0.61	0.62	1.01	0.24	0.32	0.38	*0.45	0.18	*0.92	0.48	0.46	0.67
\$7,000-\$9,999	0.26	0.30	0.42	0.16	0.17	0.28	0.08	0.09	0.14	0.18	0.27	0.28
\$10,000-\$14,999	0.31	0.34	0.48	0.15	0.21	0.19	0.07	0.07	0.14	0.23	0.32	0.37
\$15,000 or more	0.22	0.27	0.30	0.12	0.15	0.16	0.04	*0.06	0.07	0.24	0.23	0.35
Unknown	0.54	0.73	0.70	0.18	0.33	*0.45	*0.15	*0.26	*0.12	0.56	0.76	0.85
White												
Less than \$3,000	0.83	1.22	1.31	0.50	*0.62	*0.68	0.19	*0.35	*0.30	0.67	*0.96	*1.08
\$3,000-\$4,999	0.79	0.64	1.23	0.32	0.41	0.41	*0.60	0.11	*1.19	0.48	0.57	0.73
\$5,000-\$6,999	0.62	0.72	0.91	0.29	0.39	0.40	*0.24	*0.21	*0.39	0.58	0.56	0.77
\$7,000-\$9,999	0.29	0.35	0.47	0.15	0.17	0.32	0.09	0.09	0.17	0.24	0.33	0.37
\$10,000-\$14,999	0.31	0.31	0.50	0.14	0.20	0.20	0.07	0.07	0.14	0.23	0.34	0.39
\$15,000 or more	0.23	0.28	0.30	0.12	0.15	0.15	0.04	*0.06	*0.07	0.24	0.24	0.35
Unknown	0.54	0.89	*0.77	0.26	0.29	*0.49	*0.12	*0.22	*0.12	0.63	0.92	*0.92
Black												
Less than \$3,000	0.74	1.03	0.73	0.50	0.76	0.34	0.12	0.19	0.18	*0.44	*0.41	*0.68
\$3,000-\$4,999	0.52	0.57	0.92	0.34	0.46	0.52	0.11	0.14	*0.29	*0.43	0.37	*0.63
\$5,000-\$6,999	*2.19	1.33	*3.41	0.52	0.86	*0.77	*2.14	*0.51	*3.35	*0.24	*0.41	*0.29
\$7,000-\$9,999	0.55	0.93	0.66	0.48	0.69	0.65	0.18	*0.24	0.27	0.28	*0.46	0.38
\$10,000-\$14,999	1.26	*1.74	*1.82	0.62	*0.93	*0.73	*0.29	*0.29	*0.43	*0.70	*0.91	*1.17
\$15,000 or more	*0.47	*0.91	*0.87	*0.52	*0.77	*0.78	*0.37	*0.30	*0.72	*0.48	*0.49	*0.75
Unknown	*1.73	*1.90	*0.91	*0.92	*0.98	*0.47	*0.86	*0.94	-	*0.38	*0.41	*1.00

¹Includes data for "other races," which are not shown separately.

NOTES: Filled teeth include only those with satisfactory fillings. Decayed teeth include not only teeth with caries but also filled teeth with carious lesions or defective fillings. Missing teeth include both missing and nonfunctional teeth. DMF is the total of these 3 categories.

Where an asterisk is printed next to the cell value, the number of cases for that cell was less than 30 or the relative standard error for the cell value was 25 percent or more.

Table 19. Average number of decayed (D), missing (M), and filled (F) permanent teeth per person among youths 12-17 years of age, by sex, race, and education of head of household, with standard errors of the estimates: United States, 1971-74

Race and education	DMF teeth			D teeth			M teeth			F teeth		
	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females
All races ¹												
Number of teeth												
None or less than 5 years	5.1	4.5	5.7	2.8	2.8	*2.8	0.9	0.8	*1.0	*1.4	*0.9	*1.9
5-7 years	6.4	5.9	6.8	2.7	3.0	2.4	1.3	0.9	*1.8	2.4	2.1	2.7
8 years	6.4	5.6	7.1	2.2	2.2	2.2	0.9	0.6	*1.1	3.3	2.8	3.8
9-11 years	6.8	6.5	7.0	2.4	2.3	2.6	1.0	0.8	*1.2	3.3	3.4	3.2
12 years	6.2	5.5	6.8	1.6	1.4	1.8	0.6	0.4	0.8	3.9	3.8	4.1
13-15 years	5.5	5.4	5.6	1.0	1.0	1.1	0.3	*0.2	*0.4	4.2	4.1	4.2
16 years	6.2	5.3	7.2	*0.8	*0.8	*0.8	*0.2	*0.3	*0.1	5.2	4.2	6.3
17 years or more	6.1	5.8	6.5	*1.0	*1.0	*0.9	*0.1	*0.0	*0.3	5.0	4.8	5.3
Unknown	6.3	6.2	*6.3	*1.9	*2.2	*1.5	*0.7	*0.6	*0.8	3.6	*3.4	*4.0
White												
None or less than 5 years	4.9	4.1	*5.4	2.5	*2.2	*2.8	*0.8	*0.7	*0.8	*1.6	*1.3	*1.8
5-7 years	6.4	5.7	7.3	2.3	2.8	1.8	1.1	0.8	*1.4	3.0	*2.1	4.0
8 years	6.6	5.7	7.5	2.2	2.2	2.1	0.9	0.5	*1.1	3.6	3.0	4.2
9-11 years	6.8	6.7	6.8	2.2	2.1	2.3	0.7	0.7	0.8	3.8	4.0	3.7
12 years	6.3	5.6	7.0	1.5	1.3	1.7	0.6	0.3	*0.8	4.2	4.0	4.5
13-15 years	5.6	5.5	5.6	0.9	1.0	0.9	0.2	*0.2	*0.2	4.4	4.4	4.5
16 years	6.3	5.3	7.3	*0.7	*0.6	*0.8	*0.2	*0.2	*0.1	5.4	4.4	6.5
17 years or more	6.1	5.8	6.5	*0.9	*0.9	*0.9	*0.1	-	*0.2	5.1	5.0	5.3
Unknown	*6.5	*6.3	*6.8	*1.9	*2.2	*1.3	*0.6	*0.4	*0.9	*4.0	*3.7	*4.6
Black												
None or less than 5 years	5.9	*5.3	*6.7	3.7	*4.2	*2.8	1.2	*1.0	*1.5	*1.0	*0.2	*2.4
5-7 years	6.5	6.8	*6.2	3.6	3.6	3.5	*1.9	1.2	*2.5	*1.0	*2.0	*0.2
8 years	5.1	4.5	5.5	2.7	2.5	2.8	0.9	*0.9	*0.8	*1.6	*1.1	*1.8
9-11 years	6.8	5.7	8.0	3.4	3.1	3.6	*2.1	1.3	*3.0	*1.3	*1.2	*1.4
12 years	4.7	4.0	5.4	2.7	*2.4	3.0	0.8	*0.4	1.2	*1.2	*1.2	*1.3
13-15 years	*5.0	*3.9	*6.2	*3.0	*2.8	*3.1	*1.5	*0.4	*2.7	*0.5	*0.7	*0.4
16 years	*4.8	*6.0	*1.9	*2.6	*3.1	*1.6	*0.9	*1.3	-	1.2	*1.6	*0.3
17 years or more	*6.5	*6.1	*8.0	*3.4	*4.1	*1.0	*1.5	*0.3	*5.0	*1.7	*1.6	*2.0
Unknown	*4.8	*3.3	*5.5	*2.0	*2.3	*1.9	*0.7	*0.9	*0.6	*2.1	-	*3.1
All races ¹												
Standard error												
None or less than 5 years	0.50	0.57	1.16	0.43	0.57	*0.75	0.17	0.19	*0.29	*0.36	*0.31	*0.65
5-7 years	0.53	0.52	0.86	0.29	0.36	0.37	0.24	0.12	*0.48	0.40	0.45	0.66
8 years	0.44	0.58	0.59	0.23	0.35	0.25	0.17	0.10	*0.27	0.33	0.43	0.43
9-11 years	0.30	0.35	0.46	0.23	0.29	0.28	0.16	0.12	*0.31	0.24	0.44	0.32
12 years	0.18	0.25	0.27	0.12	0.13	0.17	0.11	0.06	0.21	0.17	0.22	0.26
13-15 years	0.36	0.52	0.47	0.15	0.18	0.21	0.07	*0.07	*0.12	0.34	0.55	0.40
16 years	0.53	0.51	1.01	*0.21	*0.21	*0.39	*0.07	*0.12	*0.04	0.42	0.44	0.77
17 years or more	0.44	0.45	0.73	*0.26	*0.29	*0.31	*0.07	*0.01	*0.13	0.48	0.48	0.83
Unknown	0.97	1.08	*1.33	*0.50	*0.81	*0.51	*0.29	*0.33	*0.42	0.66	*0.77	*0.88
White												
None or less than 5 years	0.67	0.64	*1.36	0.55	*0.62	*0.90	*0.23	*0.28	*0.35	*0.45	*0.44	*0.73
5-7 years	0.58	0.53	0.99	0.32	0.38	0.44	0.19	0.16	*0.38	0.60	*0.57	0.99
8 years	0.53	0.67	0.68	0.27	0.40	0.28	0.20	0.10	*0.32	0.39	0.52	0.46
9-11 years	0.32	0.48	0.46	0.22	0.32	0.29	0.10	0.12	0.16	0.28	0.50	0.38
12 years	0.20	0.24	0.33	0.12	0.14	0.18	0.12	0.06	*0.24	0.20	0.21	0.31
13-15 years	0.37	0.52	0.50	0.14	0.17	0.21	0.04	*0.06	*0.07	0.34	0.54	0.43
16 years	0.56	0.55	1.02	*0.21	*0.17	*0.41	*0.06	*0.11	*0.04	0.43	0.45	0.77
17 years or more	0.46	0.47	0.74	*0.25	*0.26	*0.32	*0.06	-	*0.11	0.48	0.46	0.85
Unknown	*1.14	*1.17	*1.73	*0.60	*0.89	*0.82	*0.41	*0.31	*0.85	*0.87	*1.43	*0.62
Black												
None or less than 5 years	1.27	*1.31	*1.63	0.72	*1.10	*0.63	0.28	*0.24	*0.41	*0.67	*0.13	*1.46
5-7 years	1.20	1.23	*1.76	0.51	0.69	0.74	*0.63	0.20	*1.24	*0.39	*0.76	*0.09
8 years	0.59	0.72	0.94	0.29	0.51	0.41	0.20	*0.28	*0.32	*0.49	*0.59	*0.67
9-11 years	0.92	0.88	1.30	0.55	0.60	0.68	*0.69	0.28	*1.32	*0.34	*0.37	*0.58
12 years	0.64	0.91	0.75	0.44	*0.69	0.47	0.18	*0.19	0.24	*0.28	*0.42	*0.37
13-15 years	*1.22	*1.42	*2.17	*0.98	*1.32	*1.60	*0.90	*0.39	*1.60	*0.35	*0.76	*0.29
16 years	*1.64	*3.00	*0.80	*1.01	*1.71	*0.96	*0.93	*1.26	-	0.54	*0.85	*0.28
17 years or more	*2.26	*3.22	*5.66	*2.17	*2.86	*0.71	*1.56	*0.82	*3.54	*0.72	*0.97	*1.41
Unknown	*1.57	*4.27	*2.01	*0.71	*2.92	*0.91	*0.48	*1.69	*0.71	*1.38	-	*1.80

¹Includes data for "other races," which are not shown separately.

NOTES: Filled teeth include only those with satisfactory fillings. Decayed teeth include not only teeth with caries but also filled teeth with carious lesions or defective fillings. Missing teeth include both missing and nonfunctional teeth. DMF is the total of these 3 categories.

Where an asterisk is printed next to the cell value, the number of cases for that cell was less than 30 or the relative standard error for the cell value was 25 percent or more.

Table 20. Average number of decayed (D), missing (M), and filled (F) teeth per person among dentulous adults 18-74 years of age, by sex, race, and family income, with standard errors of the estimates: United States, 1971-74

Race and family income	DMF teeth			D teeth			M teeth			F teeth		
	Both sexes	Men	Women	Both sexes	Men	Women	Both sexes	Men	Women	Both sexes	Men	Women
All races ¹												
Number of teeth												
Less than \$3,000	15.2	14.1	15.9	1.7	1.8	1.7	8.3	7.8	8.7	5.1	4.6	5.5
\$3,000-\$4,999	16.2	15.8	16.6	1.8	1.6	1.8	9.2	9.3	9.1	5.3	4.8	5.6
\$5,000-\$6,999	15.6	14.7	16.3	1.9	2.2	1.7	7.8	7.5	8.1	5.8	5.0	6.6
\$7,000-\$9,999	16.6	15.9	17.2	1.7	1.8	1.5	7.8	7.4	8.1	7.2	6.6	7.6
\$10,000-\$14,999	17.5	17.1	17.9	1.3	1.4	1.1	7.0	7.0	7.1	9.2	8.7	9.7
\$15,000 or more	18.0	17.6	18.4	0.8	0.9	0.7	6.2	5.8	6.6	11.0	10.9	11.1
Unknown	18.1	17.1	19.0	1.3	1.8	0.9	8.0	7.3	8.6	8.8	8.1	9.5
White												
Less than \$3,000	16.2	15.2	16.8	1.4	1.6	1.3	8.3	7.5	8.8	6.5	6.1	6.7
\$3,000-\$4,999	17.2	16.7	17.5	1.6	1.6	1.5	9.4	9.4	9.4	6.3	5.8	6.6
\$5,000-\$6,999	16.1	15.4	16.8	1.7	2.0	1.4	7.7	7.6	7.8	6.7	5.8	7.5
\$7,000-\$9,999	17.1	16.4	17.7	1.6	1.7	1.4	7.8	7.4	8.1	7.8	7.3	8.2
\$10,000-\$14,999	17.7	17.2	18.1	1.2	1.3	1.1	7.0	7.0	7.0	9.5	8.9	10.1
\$15,000 or more	18.3	17.9	18.7	0.8	0.9	0.7	6.1	5.7	6.6	11.4	11.4	11.4
Unknown	18.7	17.7	19.6	1.2	1.6	0.8	7.8	7.2	8.3	9.8	9.0	10.5
Black												
Less than \$3,000	13.0	12.1	13.7	2.6	2.3	2.9	8.8	9.1	8.6	1.5	*0.7	2.2
\$3,000-\$4,999	12.9	11.9	13.4	2.4	1.6	2.8	8.9	9.1	8.8	1.7	*1.2	1.9
\$5,000-\$6,999	12.9	11.5	14.2	3.0	2.9	3.1	8.2	7.0	9.3	1.7	*1.6	1.8
\$7,000-\$9,999	13.1	12.4	13.8	2.6	2.5	2.7	8.1	8.0	8.3	2.4	2.0	2.8
\$10,000-\$14,999	14.1	14.1	14.2	2.8	*3.2	2.4	8.4	7.0	9.6	3.0	3.8	2.2
\$15,000 or more	14.6	14.1	15.1	*1.8	*2.0	1.4	8.1	7.9	8.2	*4.7	*4.1	5.4
Unknown	14.5	13.3	15.6	2.3	*2.9	1.7	10.2	8.3	11.9	2.1	*2.2	*2.0
All races ¹												
Standard error												
Less than \$3,000	0.45	0.64	0.50	0.17	0.24	0.18	0.47	0.72	0.51	0.34	0.46	0.42
\$3,000-\$4,999	0.38	0.61	0.39	0.12	0.17	0.14	0.44	0.74	0.40	0.29	0.45	0.32
\$5,000-\$6,999	0.50	0.73	0.51	0.16	0.27	0.16	0.47	0.68	0.55	0.30	0.50	0.34
\$7,000-\$9,999	0.27	0.33	0.30	0.08	0.13	0.09	0.22	0.32	0.28	0.16	0.26	0.19
\$10,000-\$14,999	0.25	0.29	0.29	0.06	0.09	0.08	0.20	0.26	0.26	0.17	0.22	0.23
\$15,000 or more	0.23	0.34	0.31	0.05	0.07	0.06	0.18	0.26	0.30	0.20	0.31	0.21
Unknown	0.60	0.73	0.67	0.11	0.20	0.12	0.51	0.71	0.66	0.50	0.56	0.71
White												
Less than \$3,000	0.51	0.72	0.65	0.16	0.26	0.17	0.58	0.86	0.66	0.43	0.53	0.56
\$3,000-\$4,999	0.45	0.76	0.41	0.15	0.18	0.17	0.51	0.90	0.43	0.41	0.60	0.44
\$5,000-\$6,999	0.47	0.71	0.53	0.16	0.29	0.15	0.42	0.72	0.58	0.33	0.57	0.43
\$7,000-\$9,999	0.25	0.30	0.30	0.08	0.13	0.09	0.20	0.30	0.28	0.19	0.29	0.22
\$10,000-\$14,999	0.26	0.32	0.31	0.06	0.09	0.08	0.22	0.27	0.28	0.18	0.24	0.23
\$15,000 or more	0.21	0.34	0.29	0.05	0.07	0.06	0.19	0.28	0.29	0.21	0.31	0.23
Unknown	0.62	0.76	0.68	0.12	0.20	0.13	0.59	0.78	0.76	0.56	0.65	0.75
Black												
Less than \$3,000	0.73	1.30	0.77	0.25	0.34	0.28	0.68	1.32	0.58	0.23	*0.18	0.35
\$3,000-\$4,999	0.80	1.29	0.85	0.21	0.25	0.27	0.62	1.01	0.74	0.30	*0.57	0.22
\$5,000-\$6,999	1.24	1.70	1.23	0.33	0.59	0.35	1.23	1.51	1.31	0.30	*0.49	0.27
\$7,000-\$9,999	0.77	1.20	0.71	0.28	0.36	0.35	0.67	1.08	0.65	0.29	0.43	0.38
\$10,000-\$14,999	0.97	1.51	1.07	0.42	*0.92	0.43	0.81	1.14	1.10	0.47	0.80	0.36
\$15,000 or more	1.81	1.66	2.35	*0.48	*0.63	0.35	1.02	1.05	1.47	*1.23	*1.38	1.24
Unknown	1.20	1.53	1.85	0.49	*0.96	0.35	1.13	1.25	1.90	0.43	*0.52	*0.75

¹ Includes data for "other races," which are not shown separately.

NOTES: Filled teeth include only those with satisfactory fillings. Decayed teeth include not only teeth with caries but also filled teeth with carious lesions or defective fillings. Missing teeth include both missing and nonfunctional teeth. DMF is the total of these 3 categories. Where an asterisk is printed next to the cell value, the number of cases for that cell was less than 30 or the relative standard error for the cell value was 25 percent or more.

Table 21. Average number of decayed (D), missing (M), and filled (F) teeth per person among dentulous adults 18-74 years of age, by sex, race, and education, with standard errors of the estimates: United States, 1971-74

Race and education	DMF teeth			D teeth			M teeth			F teeth		
	Both sexes	Men	Women	Both sexes	Men	Women	Both sexes	Men	Women	Both sexes	Men	Women
All races ¹												
	Number of teeth											
None or less than 5 years	14.9	15.0	14.9	1.4	1.3	1.5	11.8	12.5	11.0	1.7	1.2	2.4
5-7 years	15.7	15.3	16.1	1.7	1.7	1.9	11.0	10.7	11.5	2.9	3.0	2.8
8 years	19.2	18.2	20.1	1.5	1.6	1.4	12.9	12.2	13.5	4.8	4.5	5.2
9-11 years	17.3	16.9	17.7	2.0	2.1	1.9	10.1	9.6	10.5	5.3	5.2	5.4
12 years	17.2	16.4	17.7	1.5	1.7	1.3	7.1	6.5	7.5	8.6	8.2	8.9
13-15 years	15.9	15.5	16.2	1.2	1.4	1.0	4.9	4.9	4.8	9.9	9.3	10.4
16 years	16.5	16.3	16.8	0.7	0.7	0.7	4.3	4.6	3.9	11.5	11.0	12.2
17 years or more	17.5	17.2	18.2	0.7	0.7	0.7	4.5	4.3	4.9	12.3	12.1	12.6
White												
None or less than 5 years	15.4	14.9	15.8	1.3	1.1	1.5	11.4	12.1	10.8	2.6	*1.7	3.5
5-7 years	17.4	17.3	17.5	1.9	1.9	1.9	11.8	11.6	12.1	3.7	3.8	3.5
8 years	19.9	19.2	20.7	1.3	1.4	1.2	13.3	12.7	13.8	5.3	5.0	5.7
9-11 years	18.0	17.7	18.2	1.8	2.0	1.6	10.2	9.8	10.5	6.0	5.9	6.1
12 years	17.7	16.9	18.3	1.3	1.5	1.2	7.1	6.6	7.6	9.2	8.8	9.6
13-15 years	16.1	15.7	16.5	1.0	1.3	0.8	4.7	4.8	4.6	10.3	9.6	11.0
16 years	16.8	16.6	16.9	0.7	0.8	0.6	4.2	4.6	3.8	11.9	11.3	12.6
17 years or more	17.8	17.4	18.6	0.7	0.7	0.6	4.5	4.3	4.7	12.7	12.4	13.2
Black												
None or less than 5 years	14.8	15.0	14.3	1.5	1.4	*1.6	12.7	12.9	12.3	0.6	0.7	*0.3
5-7 years	12.0	10.3	13.6	1.3	*1.0	1.7	9.6	8.4	10.7	1.1	*1.0	1.2
8 years	14.5	12.5	16.3	2.3	2.6	2.1	10.5	9.1	11.8	*1.7	*0.9	*2.4
9-11 years	14.1	12.6	15.1	2.9	2.7	3.0	9.4	8.3	10.2	1.8	*1.6	1.9
12 years	11.9	11.5	12.2	3.2	3.4	3.0	6.3	5.8	6.7	2.4	2.3	2.5
13-15 years	14.1	13.8	14.3	2.7	2.7	2.8	7.4	*7.0	7.7	4.0	4.0	4.0
16 years	15.3	*14.2	16.2	*1.7	*1.0	*2.2	*6.7	*5.5	7.6	*7.0	*7.7	*6.5
17 years or more	*14.3	*14.2	*14.3	*1.2	*1.2	*1.2	*7.3	*7.9	*7.1	*5.8	*5.0	*6.1
All races ¹												
	Standard error											
None or less than 5 years	0.63	0.92	0.74	0.18	0.15	0.32	0.72	0.97	0.95	0.26	0.26	0.50
5-7 years	0.56	0.83	0.61	0.17	0.26	0.19	0.58	0.76	0.61	0.25	0.41	0.28
8 years	0.50	0.79	0.46	0.12	0.17	0.13	0.51	0.78	0.54	0.46	0.54	0.55
9-11 years	0.26	0.42	0.33	0.13	0.18	0.11	0.32	0.43	0.38	0.21	0.32	0.23
12 years	0.21	0.30	0.25	0.06	0.09	0.06	0.13	0.27	0.17	0.16	0.19	0.22
13-15 years	0.26	0.33	0.33	0.09	0.15	0.10	0.20	0.36	0.25	0.17	0.26	0.26
16 years	0.43	0.62	0.40	0.06	0.08	0.07	0.30	0.44	0.32	0.29	0.43	0.34
17 years or more	0.42	0.44	0.84	0.07	0.08	0.14	0.25	0.32	0.58	0.37	0.39	0.70
White												
None or less than 5 years	1.19	1.37	2.27	0.46	0.71	0.40	1.64	2.14	2.68	0.71	*1.09	1.23
5-7 years	0.85	1.50	1.05	0.17	0.21	0.33	0.98	1.60	1.20	0.43	0.49	0.73
8 years	0.75	0.94	0.70	0.20	0.30	0.26	0.79	0.96	0.79	0.33	0.52	0.35
9-11 years	0.49	0.78	0.51	0.13	0.17	0.14	0.54	0.81	0.63	0.48	0.58	0.61
12 years	0.27	0.42	0.37	0.13	0.18	0.12	0.33	0.45	0.41	0.26	0.38	0.28
13-15 years	0.21	0.30	0.25	0.05	0.09	0.06	0.15	0.29	0.18	0.17	0.22	0.23
16 years	0.29	0.36	0.35	0.09	0.14	0.09	0.21	0.33	0.27	0.21	0.26	0.28
17 years or more	0.45	0.67	0.39	0.06	0.09	0.06	0.32	0.48	0.31	0.32	0.46	0.36
Black												
None or less than 5 years	0.44	0.44	0.86	0.07	0.08	*0.14	0.27	0.32	0.62	0.37	0.38	*0.71
5-7 years	1.75	1.88	3.19	0.56	*0.85	0.49	2.39	3.39	3.46	0.93	*1.70	1.89
8 years	0.78	1.00	1.32	0.36	0.26	0.65	0.93	1.05	1.67	*0.12	*0.16	*0.15
9-11 years	0.83	1.52	0.97	0.18	0.25	0.16	0.69	1.30	0.98	0.20	*0.31	0.28
12 years	1.05	1.46	1.28	0.29	0.61	0.36	1.19	1.51	1.49	0.52	0.38	0.73
13-15 years	0.84	1.05	0.94	0.27	0.45	0.27	0.74	*1.06	0.85	0.23	0.41	0.22
16 years	0.57	*1.02	0.61	*0.32	*0.55	*0.29	*0.40	*0.67	0.50	*0.25	*0.45	*0.33
17 years or more	*1.05	*1.86	*1.06	*0.33	*0.65	*0.50	*1.04	*1.94	*1.10	*0.53	*0.80	*0.68

¹Includes data for "other races," which are not shown separately.

NOTES: Filled teeth include only those with satisfactory fillings. Decayed teeth include not only teeth with caries but also filled teeth with carious lesions or defective fillings. Missing teeth include both missing and nonfunctional teeth. DMF is the total of these 3 categories. Where an asterisk is printed next to the cell value, the number of cases for that cell was less than 30 or the relative standard error for the cell value was 25 percent or more.

Table 22. Average number of decayed (D), missing (M), and filled (F) permanent teeth per child among children 6-11 years of age, by sex, race, and geographic region, with standard errors of the estimates: United States, 1971-74

Race and geographic region	DMF teeth			D teeth			M teeth			F teeth		
	Both sexes	Boys	Girls	Both sexes	Boys	Girls	Both sexes	Boys	Girls	Both sexes	Boys	Girls
All races ¹												
Number of teeth												
Northeast	1.8	1.7	1.9	0.6	0.6	0.5	0.1	*0.2	*0.1	1.1	0.9	1.3
Midwest	1.6	1.5	1.6	0.7	0.6	0.8	*0.1	*0.2	*0.1	0.7	0.8	0.7
South	1.6	1.5	1.9	0.8	0.8	0.8	0.2	*0.2	*0.2	0.6	0.4	0.8
West	1.4	1.5	1.4	0.6	0.6	0.5	*0.1	*0.2	*0.1	0.8	0.7	0.9
White												
Northeast	1.8	1.7	1.9	0.6	0.6	0.5	0.1	0.1	0.1	1.1	1.0	1.3
Midwest	1.6	1.5	1.7	0.7	0.6	0.8	*0.1	*0.1	*0.1	0.8	0.8	0.8
South	1.6	1.4	1.9	0.7	0.7	0.7	*0.2	*0.2	*0.1	0.8	0.5	1.1
West	1.4	1.5	1.3	0.5	0.6	0.4	*0.1	*0.2	*0.0	0.8	0.7	0.9
Black												
Northeast	2.0	*1.5	2.5	0.8	*0.7	*0.8	*0.3	*0.5	*0.1	0.9	*0.3	*1.6
Midwest	1.3	*1.6	1.1	0.9	*0.8	*0.9	*0.2	*0.4	*0.1	*0.2	*0.4	*0.1
South	1.7	1.7	1.7	1.1	1.1	1.1	*0.3	*0.4	*0.3	*0.2	*0.1	*0.3
West	*1.6	*1.2	2.0	0.7	*0.5	*0.8	*0.1	*0.2	*0.1	*0.9	*0.5	*1.2
All races ¹												
Standard error												
Northeast	0.08	0.11	0.13	0.07	0.08	0.07	0.03	*0.05	*0.02	0.07	0.10	0.14
Midwest	0.11	0.15	0.13	0.08	0.09	0.11	*0.04	*0.06	*0.04	0.10	0.14	0.10
South	0.14	0.15	0.21	0.11	0.11	0.14	0.05	*0.06	*0.07	0.11	0.05	0.18
West	0.14	0.15	0.17	0.07	0.09	0.09	*0.03	*0.05	*0.02	0.10	0.11	0.12
White												
Northeast	0.08	0.13	0.17	0.07	0.09	0.08	0.01	0.02	0.03	0.07	0.11	0.16
Midwest	0.11	0.14	0.13	0.09	0.09	0.12	*0.04	*0.05	*0.04	0.12	0.16	0.11
South	0.15	0.14	0.23	0.12	0.11	0.17	*0.04	*0.06	*0.06	0.16	0.08	0.25
West	0.13	0.14	0.18	0.07	0.11	0.08	*0.03	*0.06	*0.02	0.10	0.12	0.14
Black												
Northeast	0.31	*0.43	0.51	0.14	*0.28	*0.25	*0.20	*0.39	*0.05	0.20	*0.11	*0.48
Midwest	0.25	*0.51	0.25	0.18	*0.33	*0.27	*0.16	*0.32	*0.05	*0.11	*0.19	*0.07
South	0.23	0.27	0.33	0.18	0.17	0.23	*0.09	*0.14	*0.12	*0.07	*0.07	*0.11
West	*0.43	*0.50	0.49	0.15	*0.20	*0.33	*0.07	*0.13	*0.05	*0.36	*0.39	*0.44

¹ Includes data for "other races," which are not shown separately.

NOTES: Filled teeth include only those with satisfactory fillings. Decayed teeth include not only teeth with caries but also filled teeth with carious lesions or defective fillings. Missing teeth include both missing and nonfunctional teeth. DMF is the total of these 3 categories. Where an asterisk is printed next to the cell value, the number of cases for that cell was less than 30 or the relative standard error for the cell value was 25 percent or more.

Table 23. Average number of decayed (D), missing (M), and filled (F) permanent teeth per person among youths 12-17 years of age, by sex, race, and geographic region, with standard errors of the estimates: United States, 1971-74

Race and geographic region	DMF teeth			D teeth			M teeth			F teeth		
	Both sexes	Males	Females									
Number of teeth												
All races ¹	7.3	6.6	8.3	1.9	1.7	2.0	0.6	0.5	0.8	4.9	4.3	5.5
Northeast	5.8	5.5	6.1	1.9	1.7	2.1	0.5	0.4	0.7	3.4	3.5	3.3
Midwest	6.3	5.5	7.0	2.3	2.4	2.2	1.2	0.7	*1.7	2.8	2.4	3.2
South	5.5	5.3	5.8	1.3	1.3	1.3	0.5	0.4	0.6	3.7	3.6	3.9
West												
White												
Northeast	7.5	6.7	8.5	1.7	1.5	1.9	0.6	0.4	0.7	5.3	4.7	5.9
Midwest	5.9	5.6	6.2	1.7	1.5	2.0	0.5	0.3	0.6	3.7	3.7	3.6
South	6.4	5.6	7.1	1.9	2.0	1.9	*0.9	0.6	*1.3	3.5	3.0	4.0
West	5.5	5.2	5.8	1.2	1.2	1.2	0.4	0.3	0.5	3.9	3.7	4.0
Black												
Northeast	6.1	5.9	6.5	3.2	2.9	*3.6	*1.0	*0.9	*1.0	*2.0	*2.1	*1.8
Midwest	5.0	4.4	5.5	3.2	3.0	3.5	1.1	*0.6	*1.5	*0.7	*0.9	*0.5
South	6.0	5.1	6.8	3.4	3.6	3.2	*1.8	0.9	*2.7	0.8	*0.6	*1.0
West	5.3	4.5	5.9	2.1	*2.0	2.2	1.3	1.2	*1.3	*1.9	*1.2	*2.4
Standard error												
All races ¹	0.31	0.25	0.48	0.20	0.22	0.24	0.08	0.09	0.12	0.26	0.23	0.49
Northeast	0.23	0.32	0.31	0.14	0.20	0.17	0.08	0.08	0.10	0.18	0.24	0.24
Midwest	0.28	0.36	0.37	0.32	0.34	0.36	0.26	0.10	*0.51	0.23	0.31	0.29
South	0.25	0.39	0.40	0.11	0.11	0.12	0.04	0.08	0.06	0.31	0.44	0.43
West												
White												
Northeast	0.32	0.22	0.57	0.19	0.24	0.21	0.08	0.10	0.15	0.34	0.28	0.61
Midwest	0.24	0.31	0.34	0.14	0.18	0.20	0.09	0.08	0.11	0.18	0.21	0.28
South	0.36	0.38	0.53	0.33	0.30	0.44	*0.24	0.12	*0.50	0.28	0.36	0.40
West	0.26	0.38	0.43	0.13	0.12	0.16	0.05	0.07	0.07	0.33	0.41	0.47
Black												
Northeast	1.06	1.18	1.41	0.62	0.52	*1.30	*0.25	*0.31	*0.34	*0.50	*0.61	*0.52
Midwest	0.47	0.62	0.50	0.48	0.74	0.45	0.22	*0.17	*0.41	*0.24	*0.52	*0.19
South	0.86	0.77	1.34	0.43	0.60	0.46	*0.73	0.16	*1.27	0.17	*0.25	*0.39
West	0.48	0.45	0.81	0.29	*0.57	0.35	0.14	0.19	*0.34	*0.52	*0.41	*0.67

¹Includes data for "other races," which are not shown separately.

NOTES: Filled teeth include only those with satisfactory fillings. Decayed teeth include not only teeth with caries but also filled teeth with carious lesions or defective fillings. Missing teeth include both missing and nonfunctional teeth. DMF is the total of these 3 categories. Where an asterisk is printed next to the cell value, the number of cases for that cell was less than 30 or the relative standard error for the cell value was 25 percent or more.

Table 24. Average number of decayed (D), missing (M), and filled (F) permanent teeth per person among dentulous adults 18-74 years of age, by sex, race, and geographic region, with standard errors of the estimates: United States, 1971-74

Race and geographic region	DMF teeth			D teeth			M teeth			F teeth		
	Both sexes	Men	Women	Both sexes	Men	Women	Both sexes	Men	Women	Both sexes	Men	Women
All races ¹												
Number of teeth												
Northeast	18.8	18.0	19.6	1.4	1.6	1.2	8.3	7.8	8.9	9.1	8.6	9.5
Midwest	16.9	16.6	17.2	1.3	1.3	1.2	7.1	6.7	7.5	8.6	8.6	8.5
South	16.5	15.9	16.9	1.8	1.8	1.7	8.0	7.6	8.3	6.7	6.5	6.9
West	15.7	15.2	16.2	1.2	1.2	1.2	6.4	6.3	6.5	8.1	7.7	8.6
White												
Northeast	19.2	18.3	20.0	1.3	1.6	1.0	8.2	7.6	8.8	9.6	9.1	10.2
Midwest	17.3	17.1	17.5	1.1	1.2	1.0	7.0	6.7	7.4	9.2	9.2	9.1
South	17.4	16.9	17.9	1.5	1.6	1.4	7.9	7.4	8.2	8.1	7.8	8.3
West	16.1	15.5	16.5	1.1	1.2	1.1	6.4	6.2	6.5	8.6	8.1	9.0
Black												
Northeast	15.7	15.0	16.1	2.2	2.2	2.2	9.9	9.7	10.1	3.5	3.2	3.8
Midwest	13.1	12.0	14.2	2.9	3.1	2.7	7.8	6.6	9.1	2.3	2.3	2.4
South	12.9	12.5	13.2	2.7	2.6	2.8	8.5	8.3	8.6	1.7	1.6	1.8
West	12.0	10.8	12.9	2.0	1.4	2.5	7.8	*7.9	7.7	*2.2	*1.5	*2.8
All races ¹												
Standard error												
Northeast	0.35	0.42	0.35	0.09	0.13	0.08	0.28	0.33	0.29	0.26	0.30	0.25
Midwest	0.28	0.40	0.34	0.05	0.09	0.05	0.21	0.33	0.29	0.29	0.31	0.43
South	0.46	0.42	0.54	0.20	0.24	0.18	0.35	0.32	0.42	0.34	0.38	0.35
West	0.38	0.38	0.43	0.10	0.14	0.11	0.33	0.33	0.39	0.36	0.41	0.37
White												
Northeast	0.35	0.43	0.38	0.09	0.14	0.08	0.31	0.37	0.31	0.28	0.31	0.30
Midwest	0.27	0.36	0.38	0.05	0.09	0.05	0.22	0.31	0.34	0.31	0.29	0.47
South	0.48	0.40	0.59	0.20	0.25	0.16	0.37	0.35	0.48	0.44	0.50	0.44
West	0.34	0.39	0.36	0.11	0.15	0.11	0.30	0.29	0.38	0.39	0.48	0.35
Black												
Northeast	0.44	0.73	0.66	0.20	0.48	0.25	0.62	1.12	0.70	0.34	0.48	0.46
Midwest	0.83	1.39	1.03	0.40	0.71	0.25	0.74	0.97	1.17	0.29	0.31	0.48
South	0.63	0.72	0.63	0.36	0.38	0.40	0.56	0.64	0.61	0.31	0.39	0.30
West	1.54	2.56	0.88	0.34	0.21	0.62	1.47	*2.35	0.98	*0.61	*0.69	*0.85

¹ Includes data for "other races," which are not shown separately.

NOTES: Filled teeth include only those with satisfactory fillings. Decayed teeth include not only teeth with caries but also filled teeth with carious lesions or defective fillings. Missing teeth include both missing and nonfunctional teeth. DMF is the total of these 3 categories.

Where an asterisk is printed next to the cell value, the number of cases for that cell was less than 30 or the relative standard error for the cell value was 25 percent or more.

Appendixes

Contents

I. Statistical notes	42
The survey design	42
Nonresponse	43
Missing data	44
Imputation	44
Reliability of estimates	44
Small numbers	45
Sampling and measurement error	45
Tests of significance	46
II. Demographic and socioeconomic terms	47
III. The dental examination	48
The examination	48
The Periodontal Index (PI)	53
The Simplified Oral Hygiene Index (OHI-S)	53
Edentulous arches—denture status	53
Treatment needs	54
The examiners	54
List of appendix figures	
I. Dental Examination form	49
List of appendix tables	
I. United States civilian noninstitutionalized population, by age, sex, and race, November 1, 1972	43
II. Percent distribution of nonresponse adjustment factors: National Health and Nutrition Examination stands 01-65, 1971-74	44
III. Total number of examinees and those without dental examination records, by sex and age: National Health and Nutrition Examination Survey, 1971-74	45
IV. Number of sample persons who received a dental examination, by sex and age: National Health and Nutrition Examination Survey, 1971-74	45
V. Number and percent distribution of sample persons examined, by dental examiner number. National Health and Nutrition Examination Survey, 1971-74	54
VI. Percent distribution of differences in dental findings between senior dentists and other dentists on 360 replicate examinations: National Health and Nutrition Examination Survey, 1971-74	55

Appendix I. Statistical notes

The survey design

The sampling plan for the first 65 stands of the National Health and Nutrition Examination Survey (NHANES) followed a stratified multistage probability design in which a sample of the civilian noninstitutionalized population of the coterminous United States, 1-74 years of age, was selected. Excluded from the selection were persons residing in Alaska and Hawaii and those within the coterminous United States confined to institutions or residing on reservation lands of American Indians. Successive elements dealt with in the process of sampling were the primary sampling unit (PSU), the census enumeration district (ED), the segment (a cluster of households), the household, the eligible persons, and finally the sample persons.

The starting points in the first stage of this design were the 1960 Decennial Census lists of addresses and the nearly 100 PSU's into which the entire United States was divided. Each PSU is either a standard metropolitan statistical area (SMSA), a single county, or two or three contiguous counties. The PSU's were grouped into 357 strata as they were for use in the National Health Interview Survey (NHIS) during 1963-72 and subsequently collapsed into 40 superstrata for use in NHANES and in Cycles II and III of the National Health Examination Survey (NHES).

Fifteen of the 40 superstrata contained a single large metropolitan area of more than 2,000,000 population. These 15 large metropolitan areas were selected for the sample with certainty. The 25 noncertainty strata were classified into four broad geographic regions of approximately equal population and crossclassified into four broad population density groups in each region. Then a modified Goodman-Kish controlled selection technique was used to select two PSU's from each of the 25 noncertainty superstrata with the probability of selection of a PSU proportionate to its 1960 population so that proportionate representation of specified State groups

and rate of population change classes were maintained in the sample. In this manner a total first-stage sample of 65 PSU's was selected. These 65 sample PSU's or stands were the areas within which a sample of persons would be selected for examination over a 3-year survey period.

Although the 1970 Census data were used as the frame for selecting the sample with PSU's when they became available, the calendar of operations required that 1960 Census data be used for 44 of the 65 stands in the sample of NHANES. The ED's in each PSU were divided into segments of an expected six housing units each. In urban ED's the segments were clusters of six addresses from the 1960 Census Listing Books. For ED's not having usable addresses, area sampling was employed and, consequently, some variation in the segment size occurred. To make the sample representative of the current population of the United States, the address or list segments were supplemented by a sample of housing units that had been constructed since 1960.

Within each PSU a systematic sample of segments was selected. The ED's that fell into the sample were coded into one of two economic classes. The first class, identified as the "poverty stratum," was composed of "current poverty areas" that had been identified by the U.S. Bureau of the Census in 1970 (pre-1970 Census), plus other ED's in the PSU with a mean income of less than \$3,000 in 1959 (based on 1960 Census). The second economic class, the "non-poverty stratum," included all ED's not designated as belonging to the poverty stratum.

All sample segments classified as being in the poverty stratum were retained in the sample. For those sample segments in nonpoverty stratum ED's, the selected segments were divided into eight random subgroups and one of the subgroups was chosen to remain in the NHANES sample. This procedure permits a separate analysis with adequate reliability of those classified as "being below the poverty level" and those classified as "being above the poverty level."

After identification of the sample segments, a list of all current addresses within the segment boundaries was made, and a person in each of the households was interviewed to determine the age and sex of each household member, as well as other demographic and socioeconomic information required for the survey.

To select the persons in sample segments to be examined in NHANES, all household members aged 1-74 years in each segment were listed on a sample selection worksheet with each household in the segment listed serially. The number of household members in each of the six age-sex groups shown below were listed on the worksheet under the appropriate age-sex-group column. The sample selection worksheets were then put in segment number order and a systematic random sample of persons in each age-sex group was selected to be examined using the following sampling rates.

Age	Rate
1-5 years	1/2
6-19 years	1/2
20-44 years, male	1/2
20-44 years, female	1/2
45-64 years	1/2
65-74 years	1

The persons selected in the 65-stand sample of NHANES made up a representative sample of the target population and included 28,043 sample persons 1-74 years of age of whom 20,749 or 74.0 percent were examined. When adjustments were made for differential sampling for high-risk groups, the response rate became 75.2 percent.

All data presented in this report were based on "weighted" observations. That is, data recorded for each sample person were inflated to characterize the subuniverse from which that sample person was drawn. The weight for each examined person was a product of the reciprocal of the probability of selecting the person, an adjustment for nonresponse cases (i.e., persons not examined), and a poststratified ratio adjustment that increases precision by making the final sample estimates of the population agree approximately with independent controls prepared by the U.S. Bureau of the Census for the noninstitu-

tionalized population of the United States as of November 1, 1972 (approximate midsurvey point), by race, sex, and age shown in table I. Population estimates are included in some of the tables in greater detail than that used for weighting. These population figures, although not precise census estimates in this degree of age detail, are included to give a rough idea of the number in the population at risk.

A more detailed description of the survey design and selection technique can be found in the "Plan and operation of the Health and Nutrition Examination Survey, United States, 1971-1973." *Vital and Health Statistics*, Series 1, No. 10a.¹

Nonresponse

In any health examination survey, after the sample is identified and the sample persons are requested to participate in the examination, the survey meets one of its more severe problems. Usually a sizable number of sample persons will not participate in the examination. Whether or not an individual participates is determined by many factors, some of which are uncontrollable and, therefore, may be reasonably treated as an outcome of a random event with a particular probability of occurrence. In this situation, the effect of nonparticipation would only be to reduce the sample size, thereby increasing the sampling errors of examination findings. In practice, however, a potential for bias due to nonresponse exists if participation is not a random event and if nonparticipants differ from participants. Because of the possibilities of bias, intensive efforts were made in NHANES to develop and implement procedures and inducements that would reduce the number of nonrespondents and thereby reduce the potential of bias due to nonresponse. These procedures and inducements are discussed in the "Plan and operation of the Health and Nutrition Examination Survey, United States, 1971-1973," Series 1, No. 10a.¹

Despite these intensive efforts, 24.8 percent of the sample persons from the 65 stands were not examined. Consequently, the potential for a sizable

NOTE: A list of references follows the text.

Table I. United States civilian noninstitutionalized population, by age, sex, and race, November 1, 1972

Sex and race	Total	Age in years				
		1-5	6-19	20-44	45-64	65-74
Total	193,976,447	17,282,843	55,434,127	66,307,351	42,344,237	12,607,889
Male	94,151,059	8,818,156	28,014,291	31,757,861	20,090,791	5,469,960
White	82,652,067	7,407,500	23,911,243	28,195,112	18,190,148	4,948,064
All other	11,498,992	1,410,656	4,103,048	3,562,749	1,900,643	521,896
Female	99,825,388	8,464,687	27,419,836	34,549,490	22,253,446	7,137,929
White	86,932,196	7,070,529	23,261,515	30,102,612	20,011,119	6,486,421
All other	12,843,192	1,394,158	4,158,321	4,446,878	2,242,327	651,508

SOURCE: Unpublished estimates of September 27, 1974, from the U.S. Bureau of the Census.

bias does exist in the estimates in this publication. From what we know about the nonrespondents and the nature of nonresponse, we believe that the likelihood of sizable bias is small. For instance, only a small proportion of persons gave reasons for nonparticipation that would lead to the belief that they would never agree to participate in examination surveys and that they may differ from examined persons with respect to the characteristic under examination. Only 15 percent of the nonrespondents gave as their reasons for nonparticipation personal illness, physically unable, pregnant, anti-doctor, or fear of finding something wrong. Typical reasons given by the other nonrespondents were unable because of work, school, or household duties; suspicious or skeptical of the program; not interested in participating; and private medical care sufficient or just visited doctor.

An analysis of medical history data obtained for most nonexaminees as well as examinees also supports the belief that the likelihood of sizable bias due to nonresponse is small. No large differences were found between the examined and the nonexamined groups for the statistics compared. For example, 11 percent of persons examined reported having an illness or condition that interferes with their eating as compared with 9 percent of persons not examined but who had completed a medical history. The percent of persons examined reporting ever being told by a doctor that they had arthritis was 20 percent; the percent for high blood pressure was 18 percent and for diabetes, 4 percent. The corresponding percents for nonexamined persons were arthritis, 17 percent; high blood pressure, 21 percent; and diabetes, 4 percent.

As mentioned previously, the data in this report are based on weighted observations, and one of the components of the weight assigned to an examined person was an adjustment for nonresponse. A procedure was adopted that multiplies the reciprocal of the probability of selection of sample persons by a factor that brings estimates based on examined persons only up to a level that would have been achieved if all sample persons had been examined. This nonresponse adjustment factor is the ratio of the sum of sampling weights for all sample persons within a relatively homogeneous class defined by age, sex, and five income groups (under \$3,000; \$3,000-\$6,999; \$7,000-\$9,999; \$10,000-\$14,999; and \$15,000 and over) within each stand to the sum of sampling weights for all responding sample persons within the homogeneous class for the same stand. To the degree that homogeneous groups can be defined which are also homogeneous with respect to the characteristics under study, the procedure can be effective in reducing the potential bias from nonresponse. For the 65-stand sample of NHANES, the percent distribution of the nonresponse adjustment

factors used for the 325 income group-stand cells is shown in table II.

Missing data

Examination surveys are subject to the loss of information not only through the failure to examine all sample persons, but also from the failure to obtain and record all items of information for examined persons. Dental findings were obtained and records were available for 20,218 of the 20,749 examinees in this NHANES I program. Those 531 whose dental records were lost or not obtained through examinations were assigned imputed values as described in the following section. These imputed values are included in the detailed tables and findings of this report. The age-sex distribution of the examinees is shown in tables III and IV.

Imputation

Imputation of dental findings for an examinee was done by randomly selecting a match with the dental findings from among the group of examinees of the same age in years, race, sex, and income group with information recorded. The findings of this "matched" examinee were then used as the imputation for the examinee with missing data. When data for the income variable was not available, the match was limited to age in years, race, and sex.

Reliability of estimates

Because the statistics presented in this report are based on a sample, they will differ somewhat from the statistics that would have been obtained if the survey had been conducted on the complete population. In other words, the statistics are subject to sampling variability.

The standard error is primarily a measure of sampling variability, but may also include part of the variation that arises in the measurement process. The standard errors presented in tables 1-24 have been calculated by a technique referred to as "balanced

Table II. Percent distribution of nonresponse adjustment factors: National Health and Nutrition Examination Survey stands 01-65, 1971-74

<i>Nonresponse adjustment factor</i>	<i>Number of cells</i>	<i>Percent distribution</i>
Total	325	100.0
1.00-1.24	106	32.6
1.25-1.49	125	38.4
1.50-1.74	59	18.2
1.75-1.99	24	7.4
2.00-2.49	9	2.8
2.50-2.99	1	0.3
3.00-3.03	1	0.3

Table III. Total number of examinees and those without dental examination records, by sex and age: National Health and Nutrition Examination Survey, 1971-74

Age	Total number examined			Number without dental examination records		
	Both sexes	Male	Female	Both sexes	Male	Female
All ages, 1-74 years	20,749	8,820	11,929	531	207	324
1-5 years	2,895	1,469	1,426	78	36	42
6-11 years	2,057	1,026	1,031	63	30	33
12-17 years	2,126	1,064	1,062	48	18	30
18-24 years	2,296	773	1,523	60	14	46
25-34 years	2,700	804	1,896	80	26	54
35-44 years	2,328	664	1,664	55	14	41
45-54 years	1,601	765	836	43	22	21
55-64 years	1,267	598	669	33	10	23
65-74 years	3,479	1,657	1,822	71	37	34

repeated replication.” The need for this specialized technique for estimating standard errors has arisen because of the complexity of the sample design of NHANES I which makes it inappropriate to calculate them by a technique that does not account for the complex sample design (see *Vital and Health Statistics, Series 2, No. 14*¹³). It must be noted that estimates of standard error are themselves subject to errors that may be large if the number of cases upon which the estimates are based is small.

Small numbers

In some tables magnitudes are shown for cells for which the sample size is so small that the sampling error may be several times as great as the statistic itself. Obviously in such instances the numbers, if shown, have been included to convey an impression of the overall story of the table.

Sampling and measurement error

In this report, reference has been made to efforts to minimize bias and variability of measurement techniques. The potential of residual bias due to the high nonresponse rate has also been discussed.

The probability design of the survey makes possible the calculation of sampling errors. Traditionally, the role of the sampling error has been the determination of how imprecise the survey results may be because they come from a sample rather than from the measurement of all elements in the universe.

The estimation of sampling errors for a study of the type of the Health and Nutrition Examination Survey is difficult for at least three reasons: (1) measurement error and “pure” sampling error are confounded in the data—it is difficult to find a procedure that will either completely include both, or treat one or the other separately, (2) the survey

Table IV. Number of sample persons who received a dental examination, by sex and age: National Health and Nutrition Examination Survey, 1971-74

Age	Both sexes	Male	Female
All ages, 1-74 years	20,749	8,820	11,929
1-17 years	7,078	3,559	3,519
1 year	553	286	267
2 years	570	298	272
3 years	600	308	292
4 years	585	304	281
5 years	587	273	314
6 years	355	179	176
7 years	333	164	169
8 years	304	152	152
9 years	340	169	171
10 years	381	184	197
11 years	344	178	166
12 years	377	200	177
13 years	372	174	198
14 years	358	174	184
15 years	342	171	171
16 years	344	169	175
17 years	333	176	157
18-74 years	13,671	5,261	8,410
18-24 years	2,296	773	1,523
25-34 years	2,700	804	1,896
35-44 years	2,328	664	1,664
45-54 years	1,601	765	836
55-64 years	1,267	598	669
65-74 years	3,479	1,657	1,822

design and estimation procedure are complex and, accordingly, require computationally involved techniques for the calculation of variances, and (3) hundreds of statistics are presented in the tables in this report, many for subclasses of the population for which there are a small number of sample cases. Estimates of sampling error are obtained from the sample data and are themselves subject to sampling error when the number of cases in a cell is small or, even occasionally, when the number of cases is substantial.

In this report, estimates of the standard errors for selected statistics used are presented in most of the tables. Readers are again reminded that these esti-

NOTE: A list of references follows the text.

mated sampling errors do not reflect any residual bias that might still be present after the attempted correction for nonresponse. The standard error is primarily a measure of sampling variability, that is, the variations that might occur by chance because only a sample of the population is surveyed. As calculated for this report, the standard error also reflects part of the variation that arises in the measurement process. It does not include estimates of any biases that might lie in the data. The chances are about 68 out of 100 that an estimate from the sample would differ from a complete census by less than the standard error. The chances are about 95 out of 100 that the difference would be less than twice the standard error and about 99 out of 100 that it would be less than 2½ times as large.

Tests of significance

The procedure used in this report for testing the significance of the difference between the two means consisted of dividing the difference between the two

means by the standard error of the difference; that is, a z statistic was computed. An approximation of the standard error of a difference $d = x - y$ of the two statistics x and y is given by the formula

$$S_d = (S_x^2 + S_y^2)^{1/2}$$

where S_x and S_y are the sampling errors, respectively, of x and y . Of course, where the two groups or measures are positively or negatively correlated, this will give an overestimate or underestimate, respectively, of the actual standard error.

Statistical significance of differences indicated in the text are based on 0.05 significance levels except for differences among regions. For regional differences the 0.01 significance levels were used. Other text statements of substantively important differences and age-related trends based on national estimates from this cross-sectional sample data below these levels of statistical significance are referred to as "observed" differences.

Appendix II. Demographic and socioeconomic terms

Age.—Two ages were recorded for each examinee: the age at last birthday at the time of the examination and the census interview. The age criterion for inclusion in the sample used in this survey was defined as age at the time of census interview. The adjustment and weighting procedure used to produce national estimates was based on the age at interview. Data in the detailed tables and text of this report are shown by age at the time of the examination, except for those who became 75 years of age at the time of the examination who are included in the age group 65-74 years.

Race.—Race was recorded as “white,” “Negro,” or “other.” “Other” includes Japanese, Chinese, American Indian, Korean, Eskimo, and all races other than white and black. Mexicans were included with “white” unless their race was definitely known to be American Indian or of a race other than white. Black persons and those of mixed black and other parentage were recorded as “Negro,” but are referred to as black in this report. When a person of mixed racial background was uncertain about his race, the race of his father was recorded.

Geographic region.—The 48 contiguous States and the District of Columbia (excluding Alaska and Hawaii) were stratified into four broad geographic regions, each of about the same population size. With a few exceptions the compositions of the regions were as follows:

<i>Region</i>	<i>States included</i>
Northeast . . .	Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania
Midwest	Ohio, Michigan, Indiana, Illinois, Wisconsin, Minnesota, Iowa, Missouri
South	Delaware, Maryland, Virginia, West Virginia, Kentucky, Arkansas, Tennessee, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, District of Columbia

<i>Region</i>	<i>States included</i>
West	Washington, Oregon, Idaho, Montana, Wyoming, Colorado, Utah, Nevada, California, Arizona, New Mexico, Texas, Oklahoma, Kansas, Nebraska, South Dakota, North Dakota

In a few instances the actual boundaries of the regions did not follow State lines. Some strata in the Midwest and South include primary sampling units (PSU's) actually located in the West. Similarly, some strata in the West contain PSU's located in the Midwest and South.

Family income.—The income recorded was the total income received during the 12 months prior to the interview by the head of the household and all other household members related to the head. This income was the gross cash income (excluding pay in kind) except in the case of a family with its own farm or business. In that instance net income was recorded. Also included was the income of a member of the Armed Forces living at home with his family (even though he was not considered a household member). If he was not living at home, allotments and other money received by the family from him were included in the family income figure.

Education.—The only grades counted were those attended in a regular graded public or private school where persons were given formal education, whether during the day or at night, on a fulltime or part-time attendance basis. A “regular” school is one in which a person is advanced toward an elementary or high school diploma, or a college, university, or professional school degree. Education received in vocational, trade, or business schools outside the regular school system was not counted in determining the highest grade of school completed. If a person attended school in a foreign country, at an ungraded school, under a tutor, or under other special circumstances, the nearest equivalent of his highest grade attended was given.

Appendix III. The dental examination

The examination

The dental examination findings were recorded on a form that eliminated the time-consuming task of coding and keypunching. The form (figure I), four pages bound at the left-hand margin, was fed into an Optical Mark Page Reader that read the findings and entered the data directly on IBM cards.

Instructions for determining the conditions of individual teeth and recording the information were as follows:

1. Primary tooth present—A primary tooth was coded as “D,” and its status was also coded.
 2. Permanent tooth present—only the status of a permanent tooth was coded.
 3. Normal—Unfilled teeth without carious lesions were coded as “3.”
 4. Carious—Unfilled teeth with carious lesions were coded according to the surfaces involved.
 5. Filled (including crown)—Teeth with satisfactory fillings and no carious lesions were coded according to the surfaces involved.
 6. Filled defective (or tooth both filled and carious)—Filled or crowned teeth with new or recurrent carious lesions were coded according to the surfaces involved. Noncarious filled teeth were coded in the same way when the restoration was loose, or fractured, and the base or pulpal wall of the cavity preparation was exposed. Teeth with temporary fillings or crowns were coded as filled defective.
 7. Nonfunctional-carious—When decay had penetrated the pulp chamber of a tooth, the tooth was coded under “XD.” Carious teeth were nonfunctional when there was:
 - a. Visible evidence of a periapical abscess or pulpal exposure,
 - b. Visible evidence of extensive undermining of all enamel walls or if roots only were remaining.
 8. Retained deciduous teeth—When any portion of the succedaneous tooth could be seen, it was given an appropriate status code under teeth present and also coded “XD” and “D.”
 9. Missing teeth (unerupted, extracted, and replaced)—When neither a primary nor a permanent tooth was present (the tooth space may have been vacant or the missing tooth may have been replaced by a fixed or removable partial denture), a code was recorded indicating the status of the tooth space. For persons under 35 years of age, the reason that the tooth was missing should have been determined. When there was doubt, it was scored as missing because of decay. The codes were as follows:
 - 2 = Unerupted, primary
 - 0 = Unerupted, permanent
 - IR = Extracted, caries
 - 1 = Extracted, accident, orthodontics, impaction
 - F = Missing, replaced on a fixed bridge. The reason for extraction was also coded if the sample person was under 35 years of age.
 - FD = Missing, replaced on a defective fixed bridge. The reason for extraction was also coded if the sample person was under 35 years of age.
- Fixed bridges were defective:
- A. When one of the abutment teeth was nonfunctional because of either caries or loss of supporting structure, or when there was visible evidence of periapical pathology.
 - B. When the connection of the pontic with its abutment was broken.

62532

DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
PUBLIC HEALTH SERVICE
HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION
NATIONAL CENTER FOR HEALTH STATISTICS
ROCKVILLE, MARYLAND 20852

Confidentiality has been assured the individual as set forth in 22 FR 1687

HEALTH AND NUTRITION EXAMINATION SURVEY IV
DENTAL EXAMINATION

NAME

A
MCA

SEX—RACE

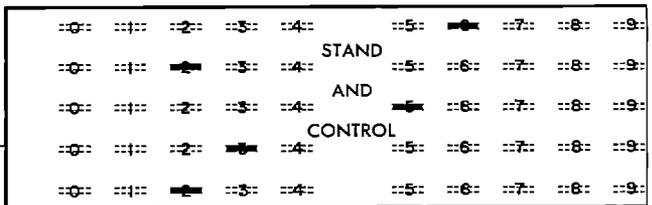
UPPER LEFT

UPPER RIGHT

LOWER LEFT

LOWER RIGHT

UPPER LEFT					UPPER RIGHT					LOWER LEFT					LOWER RIGHT																																																																
:XD	:D	:2	:0	:1R	:XD	:D	:2	:0	:1R	:XD	:D	:2	:0	:1R	:XD	:D	:2	:0	:1R																																																												
:6X	:3	:0	:4X	:5X	:6X	:3	:0	:4X	:5X	:6X	:3	:0	:4X	:5X	:6X	:3	:0	:4X	:5X																																																												
:60	:	:	:40	:50	:60	:	:	:40	:50	:60	:	:	:40	:50	:60	:	:	:40	:50																																																												
:61	:	:	:41	:51	:61	:	:	:41	:51	:61	:	:	:41	:51	:61	:	:	:41	:51																																																												
:62	:F	:R	:42	:52	:62	:F	:R	:42	:52	:62	:F	:R	:42	:52	:62	:F	:R	:42	:52																																																												
:63	:FD	:RD	:43	:53	:63	:FD	:RD	:43	:53	:63	:FD	:RD	:43	:53	:63	:FD	:RD	:43	:53																																																												
CENTRAL					CENTRAL					CENTRAL					CENTRAL																																																																
																				LATERAL					LATERAL					LATERAL					LATERAL																																												
																																								CUCULOID																																							
																																																												1ST BICUSPID																			
1ST MOLAR					1ST MOLAR					1ST MOLAR					1ST MOLAR																																																																



HSM-425-5 (Page 1)
REV. 4-71

FORM APPROVED
O.M.B. NO. 68-R1184

Figure I. Dental Examination form

62532

DENTAL EXAMINATION

0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9

STAND AND CONTROL

UPPER LEFT					UPPER RIGHT					LOWER LEFT					LOWER RIGHT				
0	1	2	3	4	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4
0	1	2	3	4	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4
0	1	2	3	4	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4
0	1	2	3	4	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4
0	1	2	3	4	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4

PERIODONTAL INDEX				NO P. I.	QUADRANT	MISSED OR ROOTS ONLY	TOOTH SPACE	MISSED OR ROOTS ONLY	QUADRANT	PERIODONTAL INDEX				OPACITIES		
1	2	6	8	1						2	6	8	1	2	6	8	NONE	NON-FLUORIDE	FLUORIDE
1	2	6	8		UPPER ARCH RIGHT	X	3RD MOLAR	X	LOWER ARCH LEFT	1	2	6	8	NONE		
1	2	6	8		UPPER ARCH RIGHT		2ND MOLAR		LOWER ARCH LEFT	1	2	6	8	MILD		
1	2	6	8		UPPER ARCH RIGHT		1ST MOLAR		LOWER ARCH LEFT	1	2	6	8	MODERATE-SEVERE		
1	2	6	8		UPPER ARCH RIGHT		2ND BI		LOWER ARCH LEFT	1	2	6	8	NA		
1	2	6	8		UPPER ARCH RIGHT		1ST BI		LOWER ARCH LEFT	1	2	6	8	OTHER CONDITIONS		
1	2	6	8		UPPER ARCH RIGHT		CUSPID		LOWER ARCH LEFT	1	2	6	8	BLEEDING GUMS	YES	NO
1	2	6	8		UPPER ARCH RIGHT		LATERAL		LOWER ARCH LEFT	1	2	6	8	DIFFUSE MARGINAL INFLAMMATION		
1	2	6	8		UPPER ARCH RIGHT		CENTRAL		LOWER ARCH LEFT	1	2	6	8	SWOLLEN RED PAPILLAE		
1	2	6	8		UPPER ARCH RIGHT				LOWER ARCH LEFT	1	2	6	8	RECESSION		
1	2	6	8		UPPER ARCH LEFT		CENTRAL		LOWER ARCH RIGHT	1	2	6	8	FOUR OR MORE PAIRS OF OPPOSING SERVICEABLE POSTERIOR TEETH		
1	2	6	8		UPPER ARCH LEFT		LATERAL		LOWER ARCH RIGHT	1	2	6	8		PRESENT	
1	2	6	8		UPPER ARCH LEFT		CUSPID		LOWER ARCH RIGHT	1	2	6	8		ABSENT	
1	2	6	8		UPPER ARCH LEFT		1ST BI		LOWER ARCH RIGHT	1	2	6	8	ORTHODONTIC APPLIANCE		
1	2	6	8		UPPER ARCH LEFT		2ND BI		LOWER ARCH RIGHT	1	2	6	8		PRESENT	
1	2	6	8		UPPER ARCH LEFT		1ST MOLAR		LOWER ARCH RIGHT	1	2	6	8		ABSENT	
1	2	6	8		UPPER ARCH LEFT		2ND MOLAR		LOWER ARCH RIGHT	1	2	6	8			
1	2	6	8		UPPER ARCH LEFT		3RD MOLAR		LOWER ARCH RIGHT	1	2	6	8			

ORAL HYGIENE INDEX

UPPER ARCH						LOWER ARCH					
RIGHT		ANTERIOR		LEFT		RIGHT		ANTERIOR		LEFT	
DEBRIS	CALCULUS	DEBRIS	CALCULUS	DEBRIS	CALCULUS	DEBRIS	CALCULUS	DEBRIS	CALCULUS	DEBRIS	CALCULUS
0	NONE	0	NONE	0	NONE	0	NONE	0	NONE	0	NONE
1	1/3	1	1/3	1	1/3	1	1/3	1	1/3	1	1/3
2	2/3	2	2/3	2	2/3	2	2/3	2	2/3	2	2/3
3	2/3 +	3	2/3 +	3	2/3 +	3	2/3 +	3	2/3 +	3	2/3 +
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

HSM-425-5 (Page 2)
REV 4-71

JBM H99624

Figure I. Dental Examination form—Con.

62532

DENTAL EXAMINATION

0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9

STAND
AND
CONTROL

BUCCAL SEGMENT RELATION		POSTERIOR CROSSBITE				ENAMEL BIOPSY	
RIGHT	LEFT	BUCCAL	RIGHT LINGUAL	BUCCAL	LEFT LINGUAL	NO	TEETH ABSENT
1	1	0	0	0	0	NO	EQUIPMENT FAILURE
2	2	1	1	1	1	NO	OTHER REASON _____
3	3	2	2	2	2	YES	TOOTH
4	4	3	3	3	3		7 8
5	5	4	4	4	4		10 9
6	6	5	5	5	5		
7	7	6	6	6	6		
8	8	7	7	7	7		
9	9	8	8	8	8		
NA	NA	9	9	9	9		

PRIMARY ARCH

HLD INDEX (HANDICAPPING LABIO-LINGUAL DEVIATIONS)									
OVERJET	MANDIBULAR PROTRUSION	INCISOR RELATIONSHIP		OVERBITE	OPENBITE	LABIO-LINGUAL SPREAD	DEFORMITY		
0	0	OPENBITE (MM)		0	0	0	ABSENT		
1	1	4+		1	1	1	PRESENT		
2	2	2+-4		2	2	2			
3	3	0-2		3	3	3			
4	4	OVERBITE		4	4	4			
5	5	INC 3RD		5	5	5			
6	6	MID 3RD		6	6	6			
7	7	GIN 3RD		7	7	7			
8	8	TISSUE		8	8	8			
9	9	IMPINGING OVERBITE		9	9	9			
NA	NA	NOT APPLICABLE		NA	NA	NA			

MALALIGNED TEETH					EDENTULOUS ARCHES- DENTURE STATUS			
UPPER					ABSENT PRESENT DEFECTIVE			
ANTERIOR					UPPER			
0	1	2	3	4	LOWER			
0	1	2	3	4	WHEN YOU EAT, DO YOU USE AN UPPER PLATE? YES NO			
POSTERIOR					DO YOU USE A LOWER PLATE? YES NO			
0	1	2	3	4	REMARKS: PRESENT ABSENT			
0	1	2	3	4				
0	1	2	3	4				
0	1	2	3	4				
0	1	2	3	4				
LOWER								
ANTERIOR								
0	1	2	3	4				
0	1	2	3	4				
POSTERIOR								
0	1	2	3	4				
0	1	2	3	4				
EXAMINER					RECORDER			
0	1	2	3	4	0			
5	6	7	8	9	1			

MSM 425-3 (Page 3)
REV 4 71

IBM H99625

Figure I. Dental Examination form-Con.

62532

DENTAL EXAMINATION

0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9

TREATMENT NEEDS

YES NO APPARENT NEED FOR DENTAL CARE
 YES NO REMOVAL OF DEBRIS AND CALCULUS
 YES NO GINGIVITIS TREATMENT
 YES NO PERIODONTAL DISEASE TREATMENT
 YES NO SEVERE MALOCCLUSION TREATMENT
 YES NO DECAYED PRIMARY TEETH

INTERVIEW

DO YOU HAVE ANY TROUBLE; YES NO

CHEWING STEAKS, CHOPS OR FIRM MEATS?

BITING APPLES OR CORN-ON-THE-COB?

BITING OR CHEWING ANY OTHER FOODS?

		0	1	2	3	4	5	6	7	8	9
DECAYED PRIMARY TEETH	ONE-SURFACE FILLINGS						TENS				
							UNITS				
	TWO-SURFACE FILLINGS						TENS				
							UNITS				
	THREE (OR MORE)-SURFACE FILLINGS						TENS				
						UNITS					
DECAYED PERMANENT TEETH	EXTRACTIONS						TENS				
							UNITS				
	ONE-SURFACE FILLINGS						TENS				
							UNITS				
	TWO-SURFACE FILLINGS						TENS				
						UNITS					
EXTRACTIONS, PERIODONTAL DISEASE	THREE (OR MORE)-SURFACE FILLINGS						TENS				
							UNITS				
	EXTRACTIONS						TENS				
							UNITS				
	EXTRACTIONS, OTHER						TENS				
						UNITS					
FIXED BRIDGES AND/OR PARTIAL DENTURES INDICATED REPLACING TEETH NO.'S	UPPER ARCH										
	LOWER ARCH										
	NO. OF BRIDGES										
REPAIR OR RELINE OF DENTURE OR BRIDGE	REPAIR										
	RELINING										
CONSTRUCT DENTURE(S)	F.U.										
	F.L.										

HSM-425-5 (Page 4)
REV. 4-71

Figure I. Dental Examination form—Con.

- C. When an abutment crown or inlay was defective because of one of the following reasons:
1. The tooth structures exposed by abrasion of the crown or inlay were carious.
 2. A carious lesion at one of the margins of the restoration had resulted in extensive undermining of an enamel wall.

The Periodontal Index (PI)

Scores were assigned according to these criteria:

- 0—Negative. There is neither overt inflammation in the investing tissues nor loss of function due to destruction of supporting tissues.
- 1—Mild gingivitis. There is an overt area of inflammation in the free gingivae, but the area does not circumscribe the tooth.
- 2—Gingivitis. Inflammation that completely circumscribes the tooth, but there is no apparent break in the epithelial attachment.
- 6—Gingivitis with pocket formation. The epithelial attachment has been broken and there is a pocket (not merely a deepened gingival crevice due to swelling in the free gingivae). There is no interference with normal masticatory function; the tooth is firm in its socket and has not drifted.
- 8—Advanced destruction with loss of masticatory function. The tooth could have been loose, could have drifted, or could sound dull on percussion with a metallic instrument.

RULE: When in doubt, the lesser score was assigned.

Each tooth present in the mouth, unless it is a root, was scored, and the arithmetic average of all scores was the individual's PI.

The Simplified Oral Hygiene Index (OHI-S)

Selected surfaces of six teeth were used in making this estimation of oral hygiene status. For the purposes of this examination each buccal or lingual surface that was used was considered to encompass half of the circumference of the tooth. The buccal surface of a molar, for example, was considered to include half of the mesial surface and half of the distal surface.

On both sides of the arch the posterior tooth assessed was the most anterior, fully erupted permanent molar or, in its absence, the most distal fully erupted primary molar. In most cases, this was a first permanent molar; in other cases it was a first or second primary molar or a second permanent molar. The buccal surfaces of upper molars and the lingual of lower molars were examined. In the anterior portion of the mouth, the labial surfaces of the upper right central incisor and the lower left central incisor

were examined. When these teeth were missing, only the adjacent central incisor was examined.

Examining for oral debris.—The surface area covered by debris was estimated by running a No. 5 explorer along the surface being examined and noting the occlusal or incisal extent of the debris as it was removed from the tooth surface and adhered to the explorer.

Scores were assigned according to the following criteria:

- 0—No debris or stain present.
- 1—(a) Soft debris covering not more than the gingival third of the tooth surface, or
(b) the presence of extrinsic stains without debris regardless of surface area covered.
- 2—Soft debris covering more than one-third but not more than two-thirds of the exposed tooth surface.
- 3—Soft debris covering more than two-thirds of the exposed tooth surface.

Examining for oral calculus.—A No. 5 explorer was also used to estimate the surface area covered by supragingival calculus and to probe for subgingival calculus.

Scores were assigned according to the following criteria:

- 0—No calculus present.
- 1—Supragingival calculus covering not more than one-third of the exposed tooth surface.
- 2—Supragingival calculus covering more than one-third but not more than two-thirds of the exposed tooth surface, and/or the presence of individual flecks of subgingival calculus around the cervical portion of the tooth.
- 3—Supragingival calculus covering more than two-thirds of the exposed tooth surface and/or a continuous heavy band of subgingival calculus around the cervical portion of the tooth.

Edentulous arches—denture status

No entry was made in this section unless at least one arch was edentulous. An arch with erupted or partly erupted teeth was considered edentulous if a full denture was being used.

Absent.—No teeth (or roots) were present in the arch and the examinee did not have a denture either in his mouth or on his person at the time of examination.

Present.—A denture was present in the mouth and not defective at the time of examination.

Defective.—There is visible evidence that the denture was causing extensive destruction of the primary stress-bearing areas of the ridge or palate.

Tissue in these areas may have been acutely inflamed; bone resorption may have occurred; hypertrophied tissue may have been present. The denture was also defective if it was in the possession of the examinee at the time of the examination but not in the mouth. If a denture status code for either or both arches was marked, the following should also be true:

- A. The spaces for the appropriate arch (or arches) under Status of Tooth Spaces, Periodontal Index, and Malaligned Teeth should be left blank.
- B. The "NA" spaces for the appropriate arch (or arches) under OHI should be marked.
- C. The "NA" spaces under Opacities, Buccal Segment Relation, Posterior Cross-bite, Incisor Relationship, and Handicapping Labio-Lingual Deviations (HLD) index should be marked.

Treatment needs

This estimate was based on the examiner's clinical judgment. Certain factors, however, would have been kept in mind when it was decided whether missing teeth ought to be replaced and when all remaining teeth in an arch ought to be extracted and a full denture constructed. In addition to the status of oral hygiene and periodontal disease, the examinee's age, his responses to the questions about chewing and eating, and the probable benefit of recommended service to the individual's health and nutrition were all taken into account.

"Yes" or "no" was reported for each area of need. Counts of the numbers of fillings and extractions needed were recorded when appropriate, and teeth to be replaced by fixed bridges or partial dentures were indicated. The type of denture was marked in the area provided for repair, reline, and construction of dentures.

The examiners

Each of the 20,218 sample persons who received dental examinations during 1971-74 (and for whom the dental records were available) was examined by one of the 10 dentists. The dentists included two senior examiners (1 and 2) who trained and supervised the other dentists (3-10).

Sample persons were not assigned randomly or equally among the various examiners. At most survey locations they were examined by only one dentist (3, 4, 5, 6, 7, 8, 9 or 10). At 18 of the 65 locations, however, a small subsample was examined by either senior dentist or, as occurred at four locations, by both senior dentists. Thus, the senior dentists examined relatively few sample persons. All dental records that were done at survey location 54 were lost and data for them had to be imputed. The examiner number is unknown for these records. The number

Table V. Number and percent distribution of sample persons examined, by dental examiner number: National Health and Nutrition Examination Survey, 1971-74

Dental examiner number	Number of sample persons examined	Percent distribution of sample persons examined
All 10 dentists	20,218	100.00
1	285	1.4
2	1,220	6.0
3	255	1.3
4	2,137	10.6
5	2,193	10.8
6	2,368	11.7
7	1,646	8.1
8	2,986	14.8
9	5,011	24.8
10	2,117	10.5

and percent of persons examined by each dentist (with records available) are shown in table V.

Most examinations completed by the senior dentists resulted from a planned series of replicate examinations. As a rule, the findings of the senior dentist were made part of the sample person's examination record, and the findings of the dentist with whom he was paired were kept separate. The primary aim of the replicate examinations was to correct any examiner divergence from the accepted examination procedures.

Throughout the replicate examinations, the senior dentist completed his examination first and dictated his findings to a trained recorder. After completing the examination, the senior dentist also recorded the findings of the other dentist, who had previously been absent from the examining room. Appreciable interexaminer differences as well as any procedure that diverged from the accepted one were discussed and, if indicated, either were resolved or corrected while the sample person was still present. However, the findings originally recorded were not altered.

To indicate the level of agreement among examiners, the results of the replicate examinations are shown in table VI. The direction of the disagreements that occurred is shown by a plus or minus sign. A plus sign indicates that a finding of the senior dentist was lower than that of another dentist, and a minus sign indicates the opposite.

Perfect agreement between senior dentists and the other examining dentist ranged from a low of about 56 percent on untreated decayed teeth to a high of 69 percent on filled teeth. Perfect agreement on DMF teeth occurred in about 44 percent of the examinations, whereas disagreement on more than one DMF tooth occurred in over one-third of them.

The results of the replicate examinations indicate that the level of examiner agreement was not as high during the NHANES as it was during the earlier survey of children and youths.^{3,4} The lower level of

NOTE: A list of references follows the text.

Table VI. Percent distribution of differences in dental findings between senior dentists and other dentists on 360 replicate examinations: National Health and Nutrition Examination Survey, 1971-74

<i>Dental findings</i>	<i>All replicate examinations</i>	<i>Differences observed in affected teeth</i>								
		<i>-4 or more</i>	<i>-3</i>	<i>-2</i>	<i>-1</i>	<i>0</i>	<i>+1</i>	<i>+2</i>	<i>+3</i>	<i>+4 or more</i>
		Percent distribution								
DMF teeth	100.0	6.1	2.8	7.2	9.7	44.1	10.6	9.2	2.8	7.5
D teeth	100.0	3.1	2.5	7.5	13.6	56.4	10.8	3.3	1.4	1.4
M teeth	100.0	5.0	0.8	2.8	5.3	63.3	10.0	4.2	2.8	5.8
F teeth	100.0	0.6	0.3	2.2	7.2	69.2	13.6	3.9	1.9	1.1

agreement during NHANES is due in part to the fact that the variability of DMF counts among those 1-74 years of age examined in NHANES is greater than in either of the two previous surveys on the more

limited age ranges mentioned earlier. Thus a greater probability exists of wider examiner disagreements that occur during examinations including both children and adults.

Vital and Health Statistics series descriptions

- SERIES 1. Programs and Collection Procedures.**—Reports describing the general programs of the National Center for Health Statistics and its offices and divisions and the data collection methods used. They also include definitions and other material necessary for understanding the data.
- SERIES 2. Data Evaluation and Methods Research.**—Studies of new statistical methodology including experimental tests of new survey methods, studies of vital statistics collection methods, new analytical techniques, objective evaluations of reliability of collected data, and contributions to statistical theory.
- SERIES 3. Analytical and Epidemiological Studies.**—Reports presenting analytical or interpretive studies based on vital and health statistics, carrying the analysis further than the expository types of reports in the other series.
- SERIES 4. Documents and Committee Reports.**—Final reports of major committees concerned with vital and health statistics and documents such as recommended model vital registration laws and revised birth and death certificates.
- SERIES 10. Data From the National Health Interview Survey.**—Statistics on illness, accidental injuries, disability, use of hospital, medical, dental, and other services, and other health-related topics, all based on data collected in the continuing national household interview survey.
- SERIES 11. Data From the National Health Examination Survey and the National Health and Nutrition Examination Survey.**—Data from direct examination, testing, and measurement of national samples of the civilian noninstitutionalized population provide the basis for (1) estimates of the medically defined prevalence of specific diseases in the United States and the distributions of the population with respect to physical, physiological, and psychological characteristics and (2) analysis of relationships among the various measurements without reference to an explicit finite universe of persons.
- SERIES 12. Data From the Institutionalized Population Surveys.**—Discontinued in 1975. Reports from these surveys are included in Series 13.
- SERIES 13. Data on Health Resources Utilization.**—Statistics on the utilization of health manpower and facilities providing long-term care, ambulatory care, hospital care, and family planning services.
- SERIES 14. Data on Health Resources: Manpower and Facilities.**—Statistics on the numbers, geographic distribution, and characteristics of health resources including physicians, dentists, nurses, other health occupations, hospitals, nursing homes, and outpatient facilities.
- SERIES 15. Data From Special Surveys.**—Statistics on health and health-related topics collected in special surveys that are not a part of the continuing data systems of the National Center for Health Statistics.
- SERIES 20. Data on Mortality.**—Various statistics on mortality other than as included in regular annual or monthly reports. Special analyses by cause of death, age, and other demographic variables; geographic and time series analyses; and statistics on characteristics of deaths not available from the vital records based on sample surveys of those records.
- SERIES 21. Data on Natality, Marriage, and Divorce.**—Various statistics on natality, marriage, and divorce other than as included in regular annual or monthly reports. Special analyses by demographic variables; geographic and time series analyses; studies of fertility; and statistics on characteristics of births not available from the vital records based on sample surveys of those records.
- SERIES 22. Data From the National Mortality and Natality Surveys.**—Discontinued in 1975. Reports from these sample surveys based on vital records are included in Series 20 and 21, respectively.
- SERIES 23. Data From the National Survey of Family Growth.**—Statistics on fertility, family formation and dissolution, family planning, and related maternal and infant health topics derived from a periodic survey of a nationwide probability sample of ever-married women 15-44 years of age.

For a list of titles of reports published in these series, write to:

Scientific and Technical Information Branch
National Center for Health Statistics
Public Health Service
Hyattsville, Md. 20782

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Office of Health Research, Statistics, and Technology
National Center for Health Statistics
3700 East-West Highway
Hyattsville, Maryland 20782

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF HHS
HHS 396

Third Class



HRST

from the Office of Health Research, Statistics, and Technology
DHHS Publication No. (PHS) 81-1673, Series 11, No. 223

for a listing of publications in the VITAL AND HEALTH STATISTICS SERIES call 301-436-NCHS