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# HEALTH STATISTICS 

FROM THE U. S. NATIONAL HEALTH SURVEY

# Dental Care volume of visits 

## United States

## July 1957- June 1959

Statistics on volume of dental visits by type of dental service, age, sex, residence, region, race, income, and education. Based on data collected in household interviews during the period July 1957-June 1959.

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The U. S. National Health Survey is a continuing program under which the Public Health Service makes studies to determine the extent of illness and disability in the population of the United States and to gather related information. It is authorized by Public Law 652, 84th Congress.

## CO-OPERATION OF THE BUREAU OF THE CENSUS

Under the legislation establishing the National Health Survey, the Public Health Service is authorized to use, insofar as possible, the services or facilities of other Federal, State, or private agencies. For the Health Interview Survey the Bureau of the Census designed and selected the sample, conducted the household interviews, and processed the data in accordance with specifications established by the Public Health Service.

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## EXPLANATION OF SYMBOLS

| Data not available (three dashes) |  |
| :---: | :---: |
| Category not applicable (three dots)- |  |
| Quantity is zero (1 dash)- | - |
| Magnitude greater than zero but less than one-half of the unit used | $0 \text { or } 0.0$ |
| Magnitude of the sampling error precludes showing separate estimates- | (*) |

## DENTAL CARE VOLUME OF VISITS

## SELECTED FINDINGS

During the two-year period July 1957-June 1959, people of the United States made approximately 517 million dental visits, representing an estimate of 258 million visits per year. This amounted to an average of 1.5 dental visits per person per year.

The rates of dental visits varied greatly among the different subgroups of the population. Members of families having an annual income of less than $\$ 2,000$ made an average of 0.7 dental visits per year as compared with a rate of 2.5 visits for those in families with an income of $\$ 7,000$ or more. Similar differences were found among the different educational groups. Where the head of the family had completed at least one year of college, family members averaged 2.4 dental visits per person per year, a rate four times that found for persons in families where the family head had less than 5 years of formal schooling.

In addition, the U. S. National Health Survey data revealed striking differences in rates of dental visits among the different residence and regional groups of the Nation.

People living "inside urbanized areas," which roughly means those living in and around cities of 50,000 or more population, made on the average 1.9 dental visits per year, while those living on

[^0]farms in rural areas made only 0.8 visits per person per year. Residents of the Northeastern region of the United States, which includes New England and the Middle Atlantic states, visited the dentist 2.1 times per year on the average, while those residing in the South averaged only 1.0 visits.

## SOURCE OF DATA

The information contained in this report was obtained from nationwide household interviews conducted by the U.S. National Health Survey. The survey is continuous, each week covering a random sample of the civilian noninstitutional population of the United States. This report is based on interviews obtained during the period July 1957-June 1959, during which time interviews were conducted in approximately 73,000 households throughout the country and included about 235,000 persons.

A description of the survey design, methods used in estimation, and the general qualifications of the data is presented in Appendix 1. Particular attention should be given to the section entitled Reliability of Estimates. Since the figures presented in this report are estimates based on a sample of the population, they are subject to sampling error. Although the sampling errors for most of the estimates are of relatively low magnitude, where an estimated number or the numerator or denominator of a rate or percent is small, the sampling error may be high.

Definitions of terms used in the report are given in Appendix II. Some of the terms have specialized meaning and a familiarity with the definitions will assist the reader in interpreting the data presented.

The portions of the questionnaire dealing with dental care are reproduced in Appendix III. Certain questions appeared on the questionnaire during the entire two-year period, while others appeared during only one of the two years. Because of this, the data included in this report on the volume of dental visits are based on two years of interviewing, July 1957-June 1959, while the remaining data on dental visits by type of service are based on one year of interviewing, July 1957June 1958. .

## VOLUME OF DENTAL VISITS

A total of 516.9 million dental visits were made during the two-year period July 1957-June 1959. This represented an estimate of 258.5 million visits per year, which amounted to an average of 1.5 dental visits per person per year.

Although this rate appears to be fairly consistent with the well-known suggestion to "see your dentist twice a year, " it should be kept in mind that the rate is an average based on persons who had visited their dentist during the year as well as those who had not. Since about two thirds of the population fall into this latter group the total number of dental visits during a given year were made by a comparatively small proportion of the population.

Any visit to a dentist's office for treatment or advice was considered to be a dental visit in the survey, even if the service was not provided directly by a dentist himself but by a hygienist working under a dentist's supervision.

Estimates of the total volume of dental visits were obtained from answers to the questions "Last week or the week before did anyone in the family go to a dentist?" and if the answer was
"yes," "How many times during the past 2 weeks?" The accumulation of counts of dental visits over two years of continuous interviewing provided the basis for the estimates included here. The aggregates shown in the detailed tables, however, are annual estimates obtained by averaging the counts of dental visits reported in each of the years.

Rates of dental visits varied greatly among the different demographic groups in the population. Figure 1 shows that in the age range 5-64 years, the average number of dental visits for females was consistently higher than for males. For both groups the peak period for dental visits was around 20 years of age. It is also at this point that the greatest discrepancy between the rates for males and females occurs. The higher rate for females may well reflect additional dental care during pregnancy or possibly a greater emphasis placed on the esthetic results derived from good dental care.


Figure 1. Number of dental visits per person per year by sex and age.

The dental care rates for both males and females were low among children under 5 years of age, when the permanent teeth have not yet erupted, and among persons 65 years of age and older, a large proportion of whom are edentulous (tables I and 2). Other dental care data from the survey show that during a one-year period the vast majority of persons in each of these age groups made no dental visits.

Marked differences in the frequency of dental visits occurred among persons living in urban and rural areas (fig. 2). Persons living "inside urbanized areas', (in and around cities having a population of 50,000 or more) had the highest number of dental visits per person, 1.9 per year. Persons living in smaller urban places and "rural-nonfarm" persons visited the dentist less frequently, with 1.4 and 1.3 visits per person per year, respectively. Rural-farm persons had the lowest rate of visits, 0.8 visits per person per year.


Figure 2. Number of dental visits per person per year by residence.
(For complete definitions of the residence areas, see Appendix 11.) These differences by area of residence, noted in the total population, were consistently present in the various age-sex groups (tables 1 and 2).

By comparing the over-all rates of dental visits for the four regions of the country, it can be seen that persons in the Northeast region averaged more dental visits than persons in any of the other regions. The West had the second highest rate of dental visits, and the North Central region had the third highest. Persons living in the South made, 'on the average, the least number of dental visits. Their rate was about half of that for the Northeastern region (fig. 3). The regional differences, showing the Northeast having the highest rate of dental visits, the South, the lowest rate, and the West and North Central regions in a middle position, show up quite consistently in the different age-sex segments of the population (tables 3 and 4.).

Rates for the four regions have been computed separately for the white and nonwhite subgroups of the population and are presented infigure 4 and table 5. Approximately the same regional pattern appears for both white and nonwhite persons separately, as for all races combined. In each of the four regions, the rates for the nonwhite population were substantially below thosefor white persons.

In figure 5 and table 6, the rates for the two racial groups are given separately by age. The rate for nonwhite persons was consistently lower than the rate for white persons in each of the age groups. In the 5-14 year age group, for example, white children visited the dentist at an average of 2.0 visits per year, while nonwhite children averaged only 0.4 visits, a rate only one fifth as large. Similar differences occurred in the other age groups.

Family income is one of the socioeconomic variables which has a striking effect on the volume of dental visits reported. For all age groups


Figure 3. Number of dental vísits per person per year by region.


Figure 4. Number of dental visits per person per year by region and race.


Figure 5. Number of dental visits per person per year by race and age.
combined, the dental visit rate increased successively from 0.7 visits per person per year for persons in families with annual incomes under $\$ 2,000$ to a high of 2.5 visits for those in families with annual incomes of $\$ 7,000$ or more (fig. 6 and table 7). Because both family income and rate of dental visits vary with age, it is necessary to examine the relationship between family income and rate of dental visits for separate age groups. From table 7, it can be seen that the direct relationship between family income and rate of dental visits occurred within each of the individual age groups shown.


Figure 6. Number of dental visits per person per year by family income.

Another socioeconomic variable-the educa-: tional attainment of the family head-also bears a direct relationship to the rate of dental visits. Persons in families whose head of family had less than 5 years of formal schooling averaged only
one fourth as many dental visits as persons in families whose head of family had completed at least one year of college (fig. 7). The dental visit rates were higher in each successive educational group from "under 5 years of education" to "college."


Figure 7. Number of dental visits per person per year by education of family head.

The direct relationship between rate of dental visits and education of family head existed in each of the age groups as well as for all age groups combined. The difference in rates is most noticeable for children in the $5-14$ year age group, where those in families whose head of family had attended college made on the average about six times as many dental visits per person as those in families whose family head had less than 5 years of education (table 8).

Not only are family income and education of family head strongly associated with rate of den-
tal visits but the two variables are also closely related to each other. By cross-classifying the two variables each can be examined in relation to dental visits while the other is held constant. In figure 8 it may be seen that among lower income families, the rate of dental visits was approximately twice as high for those whose family head had 9 or more years of school as for those whose family head had less education. Among higher income families, the ratio between the dental visit rates of the "high" educational and 'low" educational groups was $11 / 2$ to 1 . The results are similar when comparing the rates for the two income groups for persons in "low" educational and "high" educational families separately. Within each of the educational groups, those in higher income families averaged twice as many dental visits as those in lower income families. It may be seen in table 9 that similar relationships exist within the separate age groups. It thus appears


Figure 8. Number of dental visits per person per year by family income and education of family head.
that family income and educational attainment of the family head are each in themselves related to the rate of dental visits.

## DENTAL VISITS BY TYPE OF SERVICE

Data pertaining to the type of service received during dental visits were collected during July 1957-June 1958. Thus, while the material on volume of dental visits is based on two years of inerviewing, the material on type of dental service is based on only one year of interviewing.

Approximately 43 percent of all dental visits made during the period July 1957-June 1958 involved work related to fillings, crowns, inlays, and so forth. This was the largest single "type of service" category. Work relating to extractions was carried on in about 17 percent of the visits and teeth cleaning or examination in about 18 percent of the visits. "Straightening" and "gum


Figure 9. Percent distribution of dental visits by type of service.
treatment" were done in only a small proportion of the dental visits, 3 percent and 2 percent, respectively. "Denture work" which includes all types of bridgework as well as the taking of impressions and fitting and repairing of false teeth accounted for about 9 percent of the visits (fig. 9).

In collecting and tabulating the data, a visit was tallied under each type of service performed during the visit. Thus, the sum of the visits by type of service is greater than the total number of dental visits made.

The types of service received during a dental visitvaried with the age of the patient. About one half of the dental visits of children 5-14 and young people $15-24$ years of age involved some type of work related to fillings. The proportion of visits including this type of service became successively smaller in the older age groups. Approximately
one tenth of the visits of children under 15 years of age involved "extractions" as compared with a proportion twice that size for those 15 years of age and over. "Denture work" including bridgework was done during only a small proportion of visits of children and young people, but the proportion of visits involving this type of service increased with age to 34 percent for persons 65 years of age and over. Teeth straightening occurred principally among children '(tables A, 10, and 11)。

The relationships between type of dental'service and the various demographic variables were consistent with those found for volume of dental visits. In general, groups that had a low rate of dental visits also had a comparatively high proportion of their dental visits devoted to extractions (table B). For example, males had a higher proportion of their dental visits devoted to extrac-

Table A. Percent distribution of dental visits and number of dental visits per person per year by type of service according to age: United States, July 1957-June 1958

| Age | $\begin{gathered} \text { Total } \\ \text { visits } \end{gathered}$ | Type of service |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { Fil1- } \\ & \text { ings } \end{aligned}$ | Extractions | ćleaning or examination | Denture work | Other and unknown |
| A11 ages----------------------- | Percent distribution |  |  |  |  |  |
|  | 100 | $43 \mid 17$ |  | 18 | 9 | 17 |
| 0-4- | 100 | 44 | 8 | 31 | 1 | 22 |
| 5-14- | 100 | 50 | 12 | 18 | 1 | 22 |
| 15-24 | 100 | 54 | 19 | 12 | 4 | 14 |
| 25-44 | 100 | 42 | 19 | 19 | 7 | 17 |
| 45-64 | 100 | 32 | 17 | 18 | 19 | 15 |
| 65+-- | 100 | 17 | 22 | 16 | 34 | 13 |
| All ages | Number of dental visits per person per year |  |  |  |  |  |
|  | 1.6 | 0.7 | 0.3 | 0.3 | 0.1 | 0.3 |
| 0-4- | 0.3 | 0.1 | 0.0 | 0.1 | 0.0 | 0.1 |
| 5-14- | 1.9 | 0.9 | 0.2 | 0.3 | 0.0 | 0.4 |
| 15-24 | 2.3 | 1.2 | 0.4 | 0.3 | 0.1 | 0.3 |
| 25-44 | 1.9 | 0.8 | 0.4 | 0.4 | 0.1 | 0.3 |
| 45-64 | 1.7 | 0.5 | 0.3 | 0.3 | 0.3 | 0.3 |
| 65+- | 0.8 | 0.1 | 0.2 | 0.1 | 0.3 | 0.1 |

[^1]Table B. Percent distribution of dental visits and number of dental visits per person per year by type of service according to demographic characteristic: United States, July 1957-June 1958


[^2]tions than did females; rural-farm persons had a higher proportion of visits involving extractions than did rural-nonfarm persons, who in turn had a higher proportion than urban persons. Although the relationships were not quite as pronounced in the case of proportion of dental visits involving fillings, the tendency was for groups with high rates of dental visits to have a higher proportion of their visits devoted to fillings than was true for groups with low rates of dental visits.

When the types of services rendered are considered from the point of view of number of visits per person per year, a slightly different picture is presented. The number of visits per person per year involving extractions was very stable from group to group, namely either 0.2 or 0.3 visits per person. The rate of visits involving fillings varied greatly from group to group, however, with the groups having a high over-all rate of dental visits also having a high rate of visits for fillings.

Thus it would appear from the figures in table $B$ that the average number of dental visits involving extractions was consistent throughout the different subgroups of the population, while the average number of dental visits involving preventive services varied greatly from group to group. It is this variation in number of visits for preventive services that brings about the differences in the percent distributions noted above.

Since a dental visit involving a particular type of dental service was counted only once under that type of service, no matter how many teeth were involved, the data presented here, naturally, do not tell the complete story. They do, however, give some indication of the type of dental care people in the different demographic groups of the population are receiving.

Detailed data on volume of dental visits by type of service and the variables discussed above are presented in tables 10-23.

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Table 1. Average annual number of dental visits by residence, sex, and age: United States, July 1957-June 1959
[Data are based on household interviews during July 1957-June 1959. Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix 1 . Definitions of terms are given in Appendix 11]


Table 2. Number of dental visits per person per year by residence, sex, and age: United States, July 1957-June 1959
[Data are based on household interviews during july 1957-June 1959. Data refer to the civilian noninstitutional population of the United States. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix 1. Definitions of terms are given in Appendix 11]


Table 3. Average annual number of dental visits by region, sex, and age: United States, July 1957-June 1959
[Data are based on household interviews during July 1957-June 1959. Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix 1. Definitions of terms are given in Appendix 11]

| Sex and age | Region |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | All areas | Northeast | North Central | South | West |
|  | Average number of dental visits in millions |  |  |  |  |
| All ages | 258.5 | 89.1 | 77.1 | 51.8 | 40.5 |
| 0-4------------------------------------ | 5.2 | 1.1 | 2.0 | 1.0 | 1.1 |
|  | 61.7 | 20.0 | 20.3 | 11.2 | 10.2 |
|  | 47.4 | 16.9 | 14.0 | 9.8 | 6.7 |
|  | 80.2 | 28.3 | 22.7 | 17.3 | 11.9 |
|  | 52.3 | 19.0 | 14.8 | 10.1 | 8.5 |
| 65+- | 11.6 | 3.7 | 3.4 | 2.4 | 2.1 |
| Ma1e |  |  |  |  |  |
| , A11 ages--------------------------- | 108.1 | 36.2 | 33.1 | 23.5 | 15.3 |
|  | 2.3 | 0.4 | 0.9 | 0.6 | 0.4 |
|  | 28.2 | 9.4 | 8.8 | 5.6 | 4.4 |
| 15-24- | 17.8 | 6.7. | 5.2 | 3.7 | 2.3 |
| 25-44-----------------------------------1-2- | 32.9 | 11.0 | 9.8 | 7.8 | 4.3 |
| 45-64------------------------------------ | 21.8 | 7.4 | 6.5 | 4.7 | 3.1 |
| 65+-------------------------------------- | 5.0 | 1.3 | 1.9 | 1.1 | 0.8 |
| Female |  |  |  |  |  |
| All ages----------------------------- | 150.4 | 52.9 | 44.0 | 28.3 | 25.2 |
| 0-4------------------------------------ | 2.9 | 0.7 | 1.1 | 0.4 | 0.7 |
|  | 33.5 | 10.7 | 11.5 | 5.6 | 5.7 |
| 15-24---------------------------------- | 29.6 | 10.2 | 8.8 | 6.2 | 4.4 |
|  | 47.3 | 17.3 | 12.9 | 9.5 | 7.6 |
| 45-64------------------------------------ | . 30.5 | 11.6 | 8.2 | 5.3 | 5.4 |
|  | 6.6 | 2.4 | 1.5 | 1.3 | 1.4 |

Table 4. Number of dental visits per person per year by region, sex, and age: United States, July 1957-June 1959
[Data are based on household interviews during July 1957-June 1959. Data refer to the civilian noninstitutional population of the United States. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix 1: Definitions of terms are given in Appendix 11]


Table 5. Average annual number of dental visits and number of dental visits per person per year by region and race: United States, July 1957-June 1959
[Data are based on household interviews during July 1957 -June 1959. Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II]

| Race | Region |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | All areas | Northeast | North Central | South | West |
|  | Average number of dental visits in millions |  |  |  |  |
| A11 races - | 258.5 | 89.1 | 77.1 | 51.8 | 40.5 |
| White- | 248.4 | 86.6 | 75.0 | 47.8 | 39.0 |
| Nonwhite----------- | 10.1 | 2.5 | 2.2 | 4.0 | 1.5 |

Number of dental visits per person per year

White-------------------------------------
Nonwhite-----------------------------------

| 1.5 | 2.1 | 1.5 | 1.0 | 1.7 |
| ---: | ---: | ---: | ---: | ---: |
|  | 2.2 | 1.6 | 1.2 | 1.7 |
| 0.5 | 0.9 | 0.6 | 0.4 | 0.9 |

Table 6. Aver age annual number of dental visits and number of dental visits per person per year by race and age: United States, July 1957-June 1959
(See headnote on table 5)

| Age | Race |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | All races | White | Nonwhite | All races | White | Nonwhite |
| A11 ag | Average number of dental visits in millions |  |  | Number of dental visits per person per year |  |  |
|  | 258.5 | 248.4 | 10.1 | 1.5 | 1.6 | 0.5 |
| 0-4- | 5.2 | 5.1 | 0.1 | 0.3 | 0.3 | 0.0 |
| 5-14--- | 61.7 | 60.0 | 1.7 | 1.8 | 2.0 | 0.4 |
| 15-24 | 47.4 | 45.4 | 2.0 | 2.2 | 2.4 | 0.7 |
| 25-44- | 80.2 | 76.0 | 4.2 | 1.8 | 1.9 | 0.9 |
| 45-64- | 52.3 | 50.5 | 1.9 | 1.5 | 1.6 | 0.6 |
| 65+--- | 11.6 | 11.4 | 0.3 | 0.8 | 0.8 | 0.3 |

Table 7. Average annual number of dental visits and number of dental visits per person per year by family income and age: United States, July 1957-June 1959
[Data are based on household interviews during july l957-June 1959. Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix l. Definitions of terms are given in Appendix II]

| Age | Family income |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Under $\$ 2,000$ | $\begin{gathered} \$ 2,000- \\ 3,999 \end{gathered}$ | $\begin{gathered} \$ 4,000- \\ 6,999 \end{gathered}$ | \$7,000+ | Unknown |

Average number of dental visits in millions

| All ages--------------------- | 258.5 | 17.9 | 37.7 | 100.2 | 87.8 | 14.8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0-4---------------------------------- | 5.2 | 0.0 | 0.9 | 2.5 | 1.6 | 0.2 |
| 5-14--------------------------------- | 61.7 | 2.8 | 6.3 | 26.3 | 23.5 | 2.8 |
| 15-24------------------------------ | 47.4 | 4.0 | 8.7 | 17.0 | 13.9 | 3.7 |
| 25-44- | 80.2 | 3.3 | 11.0 | 35.0 | 27.4 | 3.5 |
| 45-64-------------------------------- | 52.3 | 4.6 | 7.8 | 17.0 | 19.8 | 3.2 |
| 65+- | 11.6 | 3.2 | 3.0 | 2.3 | 1.7 | 1.4 |

Number of dental visits per person per year

| All ages----------------------- | 1.5 | 0.7 | 1.0 | 1.6 | 2.5 | 1.4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0-4- | 0.3 | 0.0 | 0.2 | 0.3 | 0.5 | 0.2 |
| 5-14 | 1.8 | 0.7 | 0.9 | 1.9 | 3.1 | 1.6 |
| 15-24 | 2.2 | 1.2 | 1.7 | 2.3 | 3.3 | 2.4 |
| 25-44 | 1.8 | 0.8 | 1.2 | 1.8 | 2.5 | 1.5 |
| 45-64- | 1.5 | 0.8 | 1.1 | 1.6 | 2.4 | 1.1 |
| 65+- | 0.8 | 0.5 | 0.9 | 1.0 | 1.1 | 1.0 |

Table 8. Average annual number of dental visits and number of dental visits per person per year by education of family head and age: United States, July 1957-June 1959
(See headnote on table 7)

| Age | Education of family head |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { All } \\ \text { education } \\ \text { groups } \end{gathered}$ | Under 5 years | $\begin{gathered} 5-8 \\ \text { years } \end{gathered}$ | $\begin{aligned} & 9-12 \\ & \text { years } \end{aligned}$ | College | Unknown |
| All ages---------------------------- | Average number of dental visits in millions |  |  |  |  |  |
|  | 258.5 | 8.1 | 55.7 | 120.0 | 70.7 | 3.9 |
| 0-4 | 5.2 | 0.0 | 0.4 | 2.6 | 2.1 | 0.0 |
| 5-14- | 61.7 | 1.1 | 10.7 | 31.5 | 17.6 | 0.7 |
| 15-24 | 47.4 | 1.8 | 11.8 | 22.4 | 10.9 | 0.6 |
| 25-44- | 80.2 | 1.9 | 13.5 | 38.9 | 24.8 | 1.1 |
| 45-64- | 52.3 | 2.3 | 14.8 | 21.1 | 13.2 | 0.9 |
| 65+- | 11.6 | 1.0 | 4.5 | 3.5 | 2.0 | 0.6 |

Number of dental visits per person per year








| 1.5 | 0.6 | 1.1 | 1.6 | 2.4 | 0.9 |
| ---: | ---: | ---: | ---: | ---: | :--- |
|  |  |  |  |  |  |
| 0.3 | 0.0 | 0.1 | 0.3 | 0.6 | 0.0 |
| 1.8 | 0.5 | 1.2 | 2.0 | 3.0 | 1.1 |
| 2.2 | 1.2 | 1.9 | 2.2 | 3.3 | 1.1 |
| 1.8 | 0.9 | 1.3 | 1.7 | 2.7 | 1.3 |
| 1.5 | 0.7 | 1.1 | 1.7 | 2.6 | 0.8 |
| 0.8 | 0.4 | 0.7 | 1.0 | 1.3 | 1.0 |

Table 9. Average annual number of dental visits and number of dental visits per person per gear by family income, education of family head, and age: United States, July 1957-June 1959
[Data are based on household interviews during July 1957-June 1959. Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix l. Definitions of terms are given in Appendix II].

|  | Age | Total | Family income |  |  |  | Income or education unknown |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Under \$4,000 |  | \$4,000+ |  |  |
|  |  |  | Education of family head |  |  |  |  |
|  |  |  | Under <br> 9 gears | 9 years or over | Under <br> 9 years | 9 years or over |  |

A11 ages-------------------------







A11 ages--------------------------

5-14-------------------------------------

25-44----------------------------------

65+-------------------------------------

| 1.5 | 0.7 | 1.2 | 1.5 | 2.1 | 1.3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |
| 0.3 | 0.0 | 0.2 | 0.2 | 0.4 | 0.2 |
| 1.8 | 0.5 | 1.2 | 1.7 | 2.6 | 1.5 |
| 2.2 | 1.2 | 1.7 | 2.4 | 2.9 | 2.2 |
| 1.8 | 0.8 | 1.4 | 1.7 | 2.2 | 1.4 |
|  |  |  |  |  |  |
| 1.5 | 0.8 | 1.4 | 1.4 | 2.3 | 1.0 |
| 0.8 | 0.5 | 1.1 | 0.9 | 1.0 | 1.0 |

Table 10. Number of dental visits by type of service, sex, and age: United States, July 1957June 1958
[Data are based on household interviews during July 1957-June 1958. Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix l. Definitions of terms are given in Appendix 11]


[^3]Table 11. Percent distribution of dental visits by type of service according to sex and age: United States, July 1957-June 1958
[Data are based on household interviews during fuly 1957-June 1958. Data refer to the civilian noninstitutional population of the United States. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix 1 . Definitions of terms are given in Appendix II].

| Sex and age | $\begin{gathered} \text { Total } \\ \text { visits } \end{gathered}$ | Type of service |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Fillings | Extractions | Cleaning or examination | Straightening | Gum treatment | Denture work | Other and unknown |
| Both sexes |  |  |  |  |  |  |  |  |
| A11 ages----- | 100.0 | 43.0 | 17.0 | 17.7 | 3.4 | 1.5 | 8.6 | 12.3 |
| 0-4----------------- | 100.0 | 43.7 | 8.2 | 30.6 | - | - | 1.1 | 22.2 |
| 5-14---------------- | 100.0 | 49.9 | 12.2 | 18.1 | 9.2 | 0.6 | 1.4 | 12.6 |
| 15-24--------------- | 100.0 | 54.5 | 18.5 | 11.9 | 4.7 | 0.9 | 3.7 | 8.4 |
| 25-44--------------- | 100.0 | 42.3 | 19.4 | 19.4 | 1.2 | 2.5 | 6.7 | 13.1 |
| 45-64--------------- | 100.0 | 32.3 | 17.3 | 18.4 | 0.3 | 1.9 | 19.0 | 13.1 |
| 65+----------------- | 100.0 | 16.7 | 21.9 | 15.7 | - | 1.1 | 34.5 | 12.1 |
| Male |  |  |  |  |  |  |  |  |
| All ages------ | 100.0 | 42.6 | 18.7 | 18.8 | 2.4 | 1.4 | 8.4 | 11.8 |
| 0-4----------------- | 100.0 | 48.8 | 9.1 | 32.9 | - | - | 1.3 | 19.7 |
| 5-14----------------- | 100.0 | 46.0 | 15.8 | 19.4 | 6.7 | 0.4 | 2.1 | 14.6 |
| 15-24-------------- | 100.0 | 53.8 | 19.3 | 13.9 | 3.1 | 0.7 | 3.5 | 8.9 |
| 25-44--------------- | 100.0 | 44.5 | 20.4 | 19.7 | 0.1 | 2.5 | 6.4 | 10.5 |
| 45-64-----------.--- | 100.0 | 33.5 | 18.3 | 18.4 | 0.6 | 2.2 | 17.9 | 12.0 |
| 65+- | 100.0 | 13.0 | 27.7 | 21.5 | - | - | 29.7 | 10.7 |
| Female |  |  |  |  |  |  |  |  |
| A11 ages----- | 100.0 | 43.3 | 15.7 | 16.9 | 4.1 | 1.6 | 8.8 | 12.7 |
| 0-4----------------- | 100.0 | 39.9 | 7.6 | 29.0 | - | - | 1.0 | 24.1 |
| 5-14----------------- | 100.0 | 53.4 | 8.9 | 16.9 | 11.4 | 0.7 | 0.8 | 10.9 |
| 15-24--------------- | 100.0 | 54.9 | 18.0 | 10.6 | 5.8 | 1.1 | 3.8 | 8.0 |
| 25-44--------------- | 100.0 | 40.8 | 18.7 | 19.2 | 1.8 | 2.5 | 6.8 | 14.8 |
| 45-64-------------- | 100.0 | 31.3 | 16.5 | 18.4 | - | 1.8 | 19.9 | 14.0 |
| 65+----------------- | 100.0 | 20.4 | 16.1 | 10.1 | - | 2.2 | 39.2 | 13.4 |

${ }^{1}$ The sum of the percentages may add to more than 100 percent because one visit may involve more than one type of service.

Table 12. Number of dental visits by type of service, residence, and age: United States, July 1957-June 1958
[Data are based on household interviews during July 1957-June 1958. Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix 1 . Definitions of terms are given in Appendix 11]

|  |  | Type of service |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Residence and age | $\begin{gathered} \text { Total } \\ \text { visits } \end{gathered}$ | Fillings | Extractions | Cleaning or examination | $\begin{aligned} & \text { Straight- } \\ & \text { ening } \end{aligned}$ | Gum treatment | Denture work | Other and unknown |



[^4]Table. 13. Percent distribution of dental visits by type of service according to residence and age: United States, July 1957-June 1958
[Data are based on household interviews during July 1957-June 1958. Data refer to the civilian noninstitutional population of the United States. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix 1. Definitions of terms are given in Appendix 11]

| Residence and age | $\begin{gathered} \text { Total } \\ \text { visits } \end{gathered}$ | Type of service |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Fillings | Extractions | Cleaning or examinations | Straightening | Gum treatment | Denture work | Other and unknown |
| All areas <br> A11 ages------ |  |  |  |  |  |  |  |  |
|  | 100.0 | 43.0 | 17.0 | 17.7 | 3.4 | 1.5 | 8.6 | 12.3 |
| 0-4----------------- | 100.0 | 43.7 | 8.2 | 30.6 | - | - | 1.1 | 22.2 |
| 5-14---------------- | 100.0 | . 49.9 | 12.2 | 18.1 | 9.2 | 0.6 | 1.4 | 12.6 |
| 15-24-------------. | 100.0 | 54.5 | 18.5 | 11.9 | 4.7 | 0.9 | 3.7 | 8.4 |
| 25-44--------------- | 100.0 | 42.3 | 19.4 | 19.4 | 1.2 | 2.5 | 6.7 | 13.1 |
| 45-64---------------- | 100.0 | 32.3 | 17.3 | 18.4 | 0.3 | 1.9 | 19.0 | 13.1 |
| 65+------------------ | 100.0 | 16.7 | 21.9 | 15.7 | - | 1.1 | 34.5 | 12.1 |
| Urban <br> All ages------ |  |  |  |  |  |  |  |  |
|  | 100.0 | 43.7 | 15.2 | 18.3 | 3.6 | 1.6 | 8.7 | 12.5 |
| 0-4----------------- | 100.0 | 45.3 | 9.2 | 32.5 | - | - | 0.8 | 19.8 |
| 5-14----------------- | 100.0 | 49.5 | 11.4 | 19.3 | 9.8 | 0.6 | 1.3 | 12.4 |
| 15-24---------------- | 100.0 | 59.7 | 12.9 | 12.6 | 5.5 | 0.9 | 3.9 | 7.6 |
| 25-44--------------- | 100.0 | 42.2 | 18.9 | 19.5 | 1.5 | 2.5 | 6.1 | 13.6 |
| 45-64--------------- | 100.0 | 33.4 | 14.9 | 18.8 | 0.4 | 1.9 | 18.5 | 14.4 |
| 65+------------------ | 100.0 | 15.2 | 21.5 | 17.8 | - | 1.5 | 34.4 | 10.9 |
| Rural nonfarm |  |  |  |  |  |  |  |  |
| A11 ages----- | 100.0 | 42.7 | 19.6 | 16.1 | 3.0 | 1.8 | 9.1 | 10.9 |
| 0-4----------------- | 100.0 | 44.4 | 7.1 | 24.4 | - | - | 1.8 | 25.2 |
| 5-14----------------- | 100.0 | 53.4 | 12.0 | 14.2 | 8.9 | 0.4 | 2.0 | 12.3 |
| 15-24--------------- | 100.0 | 42.6 | 29.9 | 10.0 | 3.6 | 0.7 | 4.0 | 10.0 |
| 25-44---------------- | 100.0 | 43.5 | 19.6 | 18.8 | 0.2 | 3.1 | 9.7 | 9.9 |
| 45-64--------------- | 100.0 | 29.7 | 22.0 | 19.6 | - | 3.0 | 19.7 | 9.4 |
| 65+------------------ | 100.0 | 14.4 | 26.2 | 8.8 | - | - | 42.1 | 9.6 |
| Rural farm |  |  |  |  |  |  |  |  |
| All ages----- | 100.0 | 37.1 | 26.3 | 16.0 | 1.8 | 0.5 | 6.9 | 14.7 |
| 0-4----------------- | 100.0 | 7.3 | - | 51.7 | - | - | - | 41.0 |
| 5-14----2--------- | 100.0 | 42.9 | 18.7 | 19.2 | 4.9 | 0.7 | 0.4 | 15.4 |
| 15-24--------------- | 100.0 | 40.9 | 36.5 | 10.6 | 0.9 | 1.6 | 0.9 | 10.7 |
| 25-44---------------- | 100.0 | 39.2 | 24.6 | 20.1 | 1.1 | - | 2.7 | 18.7 |
| 45-64--------------- | 100.0 | 25.3 | 32.7 | 10.6 | - | - | 23.6 | 8.2 |
| 65+----------------- | 100.0 | 29.9 | 17.8 | 12.1 | - | - | 24.7 | 23.0 |

[^5]Table 14. Number of dental visits by type of service, region, and age: United States, July 1957June 1958
[Data are based on household interviews during July 1957-June 1958. Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix 1 . Definitions of terms are given in Appendix 11]

|  |  | Type of service |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Region and age | $\begin{gathered} \text { Total } \\ \text { visits } \end{gathered}$ | Fillings | Extractions | Cleaning or examination | $\begin{array}{\|c} \text { Straight- } \\ \text { ening } \end{array}$ | Gum treatment | Denture work | Other and unknown |


| All areas | Number of dental visits in millions |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
| All ages----- | 269.2 | 115.8 | 45.7 | 47.6 | 9.1 | 4.2 | 23.2 | 33.2 |
| 0-4----------------- | 6.0 | 2.6 | 0.5 | 1.8 | - | - | 0.1 | 1.3 |
| 5-14---------------- | 62.0 | 31.0 | 7.5 | 11.2 | 5.7 | 0.4 | 0.9 | 7.8 |
| 15-24--------------- | 47.5 | 25.9 | 8.8 | 5.7 | 2.2 | 0.4 | 1.8 | 4.0 |
| 25-44 | 84.6 | 35.8 | 16.4 | 16.4 | 1.0 | 2.1 | 5.7 | 11.1 |
| 45-64 | 58.2 | 18.8 | 10.1 | 10.7 | 0.2 | 1.1 | 11.1 | 7.6 |
| 65+-- | 11.0 | 1.8 | 2.4 | 1.7 | - | 0.1 | 3.8 | 1.3 |
| Northeast |  |  |  |  |  |  |  |  |
| A11 ages----- | 92.1 | 43.8 | 12.4 | 16.8 | 2.8 | 1.9 | 6.0 | 12.8 |
| 0-4----------------- | 1.1 | 0.5 | 0.0 | 0.4 | - | - | 0.0 | 0.2 |
| 5-14---------------- | 21.3 | 11.5 | 2.1 | 4.3 | 1.5 | 0.3 | $0 \cdot 3$ | 2.6 |
| 15-24--------------- | 15.5 | 10.4 | 1.8 | 1.5 | 0.6 | 0.2 | 0.5 | 1.1 |
| 25-44 | 29.5 | 13.3 | 4.9 | 5.6 | 0.7 | 1.0 | 0.8 | 4.9 |
| 45-64 | 21.0 | 7.5 | 2.7 | 4.3 | - | 0.4 | 3.1 | 3.9 |
| 65+----------------- | 3.7 | 0.6 | 0.8 | 0.7 | - | 0.1 | 1.4 | 0.2 |
| - North Central |  |  |  |  |  |  |  |  |
| All ages------ | 80.3 | 37.1 | 12.7 | 11.7 | 2.0 | 0.7 | 7.2 | 10.7 |
| 0-4----------------- | 2.3 | 0.9 | 0.2 | 0.6 | - | - | - | 0.6 |
| 5-14 | 18.8 | 10.1 | 2.0 | 3.2 | 1.3 | 0.0 | 0.2 | 2.5 |
| 15-24--------------- | 15.1 | 8.0 | 2.5 | 1.7 | 0.5 | 0.2 | 0.8 | 1.6 |
| 25-44---------------- | 23.7 | 10.5 | 4.4 | 3.6 | 0.2 | 0.2 | 2.2 | 3.4 |
| 45-64 | 17.8 | 7.0 | 2.8 | 2.2 | 0.1 | 0.2 | 3.5 | 2.1 |
| 65+----------------- | 2.6 | 0.6 | 0.7 | 0.4 | - | - | 0.5 | 0.4 |
| All ages----- | 54.1 | 18.4 | 14.1 | 10.2 | 1.9 | 1.1 | 5.7 | 4.8 |
| 0-4----------------- | 1.3 | 0.7 | 0.1 | 0.4 | - | - | - | 0.3 |
| 5-14--------------- | 11.4 | 4.7 | 2.2 | 1.8 | 1.4 | - | 0.2 | 1.5 |
| 15-24---------------- | 10.5 | 4.6 | 3.5 | 1.6 | 0.4 | 0.1 | 0.2 | 0.6 |
| 25-44--------------- | 17.8 | 6.2 | 4.6 | 4.5 | 0.1 | 0.6 | 1.4 | 1.3 |
| 45-64--------------- | 10.5 | 1.8 | 3.3 | 1.7 | 0.0 | 0.3 | 2.8 | 0.7 |
| 65+------------------ | 2.6 | 0.4 | 0.5 | 0.2 | - | 0.1 | 1.2 | 0.4 |
| All ages------ | $\because 42.7$ | 16.4 | 6.5 | 8.9 | 2.3 | 0.4 | 4.3 | 4.9 |
| 0-4--------------- | 1.3 | 0.5 | 0.2 | 0.4 | - | $\stackrel{-}{-}$ | 0.0 | 0.2 |
| 5-14---------------- | 10.5 | 4.6 | 1.2 | 1.9 | 1.5 | 0.0 | 0.2 | 1.3 |
| 15-24--------------- | 6.4 | 2.9 | 1.0 | 0.9 | 0.8 | 0.0 | 0.3 | 0.6 |
| 25-44--------------- | 13.6 | 5.8 | 2.5 | 2.8 | - | 0.2 | 1.2 | 1.5 |
| 45-64--------------- | 8.9 | 2.4 | 1.3 | 2.6 | - | 0.2 | 1.7 | 1.0 |
| 65+------------------ | 2.1 | 0.2 | 0.4 | 0.4 | - | - | 0.8 | 0.3 |

[^6]Table 15. Percent distribution of dental visits by type of service according to region and age: United States, July. 1957-June 1958
LData are based on household interviews during July 1957-June 1958 . Data refer to the civilian noninstitutional population of the United States. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix ll]

| Region and age | $\begin{array}{\|c} \text { Total } \\ \text { visits } \end{array}$ | Type of service |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Fillings | $\begin{gathered} \text { Extrac- } \\ \text { tions } \end{gathered}$ | Cleaning or examination | $\begin{aligned} & \text { Straight- } \\ & \text { ening } \end{aligned}$ | Gum treatment | Denture work | Other and unknown |
| Al1 areas |  |  |  |  |  |  |  |  |
| A11 ages------ | 100.0 | 43.0 | 17.0 | 17.7 | 3.4 | 1.5 | 8.6 | 12.3 |
| 0-4----------------- | 100.0 | 43.7 | 8.2 | 30.6 | - | - | 1.1 | 22.2 |
| 5-14---------------- | 100.0 | 49.9 | 12.2 | 18.1 | 9.2 | 0.6 | 1.4 | 12.6 |
| 15-24--------------- | 100.0 | 54.5 | 18.5 | 11.9 | 4.7 | 0.9 | 3.7 | 8.4 |
| 25-44--------------- | 100.0 | 42.3 | 19.4 | 19.4 | 1.2 | 2.5 | 6.7 | 13.1 |
| 45-64--------------- | 100.0 | 32.3 | 17.3 | 18.4 | 0.3 | 1.9 | 19.0 | 13.1 |
| 65+------------------ | 100.0 | 16.7 | 21.9 | 15.7 | - | 1.1 | 34.5 | 12.1 |
| Northeast |  |  |  |  |  |  |  |  |
| A11 ages----- | 100.0 | 47.6 | 13.4 | 18.2 | 3.0 | 2.1 | 6.5 | 13.9 |
| 0-4-------------.---- | 100.0 | 50.7 | 1.3 | 35.6 | - | - | 3.2 | 20.4 |
| 5-14---------------- | 100.0 | 53.8 | 9.9 | 20.0 | 7.1 | 1.4 | 1.2 | 12.1 |
| 15-24--------------- | 100.0 | 67.1 | 11.8 | 10.0 | 3.7 | 1.2 | 3.1 | 7.0 |
| 25-44--------------- | 100.0 | 44.9 | 16.7 | 18.9 | 2.2 | 3.4 | 2.8 | 16.5 |
| 45-64---------------- | 100.0 | 35.8 | 12.8 | 20.3 | - | 1.8 | 14.6 | 18.4 |
| 65+------------------ | 100.0 | 17.0 | 21.0 | 19.6 | - | 1.7 | 36.8 | 4.5 |
| North Central |  |  |  |  |  |  |  |  |
| All ages-.-.-- | 100.0 | 46.2 | 15.8 | 14.6 | 2.5 | 0.9 | 9.0 | 13.3 |
| 0-4------------------ | 100.0 | 37.5 | 10.5 | 25.8 | - | - | - | 26.2 |
| 5-14---------------- | 100.0 | 53.6 | 10.7 | 17.2 | 6.7 | 0.2 | 1.0 | 13.3 |
| 15-24--------------- | 100.0 | 53.1 | 16.8 | 11.0 | 3.1 | 1.2 | 5.5 | 10.9 |
| 25-44--------------- | 100.0 | 44.3 | 18.7 | 15.3 | 0.7 | 1.0 | 9.2 | 14.4 |
| 45-64--------------- | 100.0 | 39.5 | 15.6 | 12.2 | 0.7 | 1.4 | 19.7 | 11.7 |
| 65+------------------ | 100.0 | 25.5 | 26.5 | 15.7 | - | - | 19.6 | 16.4 |
| South |  |  |  |  |  |  |  |  |
| A11 ages------ | 100.0 | 34.0 | 26.1 | 18.8 | 3.6 | 2.0 | 10.6 | 8.9 |
| 0-4------------------ | 100.0 | 56.4 | 6.3 | 31.9 | - | - | - | 20.3 |
| 5-14---------------- | 100.0 | 41.5 | 19.4 | 16.0 | 12.3 | - | 1.7 | 12.9 |
| 15-24--------------- | 100.0 | 43.8 | 32.8 | 15.1 | 3.8 | 0.5 | 1.5 | 6.2 |
| 25-44--------------- | 100.0 | 34.6 | 25.7 | 25.0 | 0.8 | 3.4 | 7.9 | 7.5 |
| 45-64---------------- | 100.0 | 17.5 | 31.4 | 16.1 | 0.2 | 3.3 | 26.8 | 6.5 |
| 65+------------------ | 100.0 | 13.1 | 19.9 | 8.5 | - | 2.2 | 44.3 | 15.6 |
| West |  |  |  |  |  |  |  |  |
| A11 ages------ | 100.0 | 38.5 | 15.3 | 20.9 | 5.4 | 1.0 | 10.0 | 11.5 |
| 0-4----------------- | 100.0 | 36.0 | 11.8 | 33.8 | - | - | 2.5 | 18.6 |
| 5-14---------------- | 100.0 | - 44.4 | 11.7 | 18.1 | 14.4 | 0.1 | 2.4 | 12.0 |
| 15-24--------------- | 100.0 | 44.9 | 15.2 | 13.5 | 12.6 | 0.4 | 4.4 | 9.3 |
| 25-44--------------- | 100.0 | 42.9 | 18.1 | 20.4 | - | 1.8 | 9.1 | 10.8 |
| 45-64---------------- | 100.0 | 26.8 | 14.5 | 29.1 | - | 1.8 | 19.2 | 11.5 |
| 65+----------------- | 100.0 | 11.2 | 20.1 | 18.1 | - |  | 36.6 | 15.5 |

[^7]Table 16. Number of dental visits by type of service, race, and age: United States, July 1957June 1958
[Data are based on household interviews during July 1957-June 1958. Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix 1 . Definitions of terms are given in Appendix 11]


[^8]Table 17. Percent distribution of dental visits by type of service according to race and age: United States, July 1957-June 1958
[Data are based on household interviews during July 1957-June 1958. Data refer to the civilian noninstitutional population of the United States. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix l. Definitions of terms are given in Appendix 11]

| Race and age | Total visits ${ }^{1}$ | Type of service |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Fillings | $\begin{gathered} \text { Extrac- } \\ \text { tions } \end{gathered}$ | Cleaning or examination | $\begin{aligned} & \text { Straight- } \\ & \text { ening } \end{aligned}$ | Gum treatment | Denture work | Other and unknown |
| A11 races <br> All ages |  | 43.0 | 17.0 | 17.7 | 3.4 | 1.5 | 8.6 | 12.3 |
|  | 100.0 |  |  |  |  |  |  |  |
| 0-4------------------------------- | 100.0 | 43.7 | 8.2 | 30.6 | 9.2 | 0.6 | 1.11.4 | $\begin{aligned} & 22.2 \\ & 12.6 \end{aligned}$ |
|  | 100.0 | 49.9 | 12.2 | 18.1 |  |  |  |  |
|  | 100.0 | 54.5 | 18.5 | 11.9 | 4.7 | $\begin{aligned} & 0.9 \\ & 2.5 \end{aligned}$ | $\begin{aligned} & 3.7 \\ & 6.7 \end{aligned}$ | $\begin{array}{r} 8.4 \\ 13.1 \end{array}$ |
|  | 100.0 | 42.3 | 19.4 | 19.4 | 1.2 |  |  |  |
| $45-64$ <br> $65+$ <br> White <br> A11 ages | $\begin{aligned} & 100.0 \\ & 100.0 \end{aligned}$ | $\begin{aligned} & 32.3 \\ & 16.7 \end{aligned}$ | $\begin{aligned} & 17.3 \\ & 21.9 \end{aligned}$ | 18.4 | 0.3 | $\begin{aligned} & 1.9 \\ & 1.1 \end{aligned}$ | $\begin{aligned} & 19.0 \\ & 34.5 \end{aligned}$ | $\begin{aligned} & 13.1 \\ & 12.1 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | 100.0 | 43.7 | 16.0 | 17.9 | 3.4 | 1.5 | 8.5 | 12.6 |
|  | $\begin{aligned} & 100.0 \\ & 100.0 \end{aligned}$ | $\begin{aligned} & 43.9 \\ & 50.4 \end{aligned}$ | $\begin{array}{r} 7.3 \\ 11.8 \end{array}$ | $\begin{aligned} & 31.2 \\ & 18.0 \end{aligned}$ | 9.1 | 0.6 | 1.11.4 | $\begin{aligned} & 22.4 \\ & 12.7 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |
|  | $\begin{aligned} & 100.0 \\ & 100.0 \end{aligned}$ | $\begin{aligned} & 55.5 \\ & 43.0 \end{aligned}$ | $\begin{aligned} & 17.4 \\ & 18.3 \end{aligned}$ | 12.219.8 | 4.81.2 | 1.02.2 | 3.56.7 | 8.313.4 |
|  |  |  |  |  |  |  |  |  |
| 45-64 <br> $65+$ <br> Nonwhite <br> A11 ages | $\begin{aligned} & 100.0 \\ & 100.0 \end{aligned}$ | $\begin{aligned} & 33.0 \\ & 17.3 \end{aligned}$ | $\begin{aligned} & 15.6 \\ & 21.9 \end{aligned}$ | $\begin{aligned} & 18.9 \\ & 15.7 \end{aligned}$ | 0.3 | $\begin{aligned} & 2.0 \\ & 1.1 \end{aligned}$ | $\begin{aligned} & 19.0 \\ & 33.5 \end{aligned}$ | $\begin{aligned} & 13.6 \\ & 12.5 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | 100.0 | 22.8 | 44.9 | 10.0 | 2.4 | 3.3 | 11.4 | 6.1 |
| 0-4 | $\begin{aligned} & 100.0 \\ & 100.0 \end{aligned}$ | $\begin{aligned} & 29.0 \\ & 30.8 \end{aligned}$ | $\begin{aligned} & 57.9 \\ & 27.1 \end{aligned}$ | 21.6 | 11.9 | - | 1.0 | 13.1 |
| 5-14---------------- |  |  |  |  |  |  |  | 8.8 |
| $\begin{aligned} & 15-24 \\ & 25-44 \end{aligned}$ | $\begin{aligned} & 100.0 \\ & 100.0 \end{aligned}$ | $\begin{aligned} & 28.6 \\ & 24.8 \end{aligned}$ | $\begin{aligned} & 47.7 \\ & 45.1 \end{aligned}$ | $\begin{aligned} & 5.0 \\ & 9.5 \end{aligned}$ | 1.8 | 8.8 | 7.47.0 | 9.66.3 |
|  |  |  |  |  |  |  |  |  |
|  | $\begin{aligned} & 100.0 \\ & 100.0 \end{aligned}$ | 13.1 | $\begin{aligned} & 58.5 \\ & 20.7 \end{aligned}$ | $\begin{array}{r} 5.3 \\ 17.3 \end{array}$ | - | 0.7 | $\begin{aligned} & 20.5 \\ & 62.0 \end{aligned}$ | 2.0 |
|  |  |  |  |  |  |  |  |  |

[^9]Table 18. Number of dental visits by type of service, family income, and age: United States, July 1957-June 1958
[Data are based on household interviews during July 1957-June 1958. Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix 1 . Definitions of terms are given in Appendix 11]

| Family income and age | $\begin{gathered} \text { Total } \\ \text { visits } \end{gathered}$ | Type of service |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Fillings | Extractions | Cleaning or examination | Straightening |  | Denture work | Other and unknown |



[^10]Table 19. Percent distribution of dental visits by type of service according to family income and age: United States, July 1957-June 1958
[Data are based on household interviews during July 1957-June 1958. Data refer to the civilian noninstitutional population of the United States. The survey design, general qualifications, and information on the rellabllity of the estlmates are given in Appendix 1 . Definitions of terms are given in Appendix 11]

| Family income and age | $\begin{gathered} \text { Total } \\ \text { visits } \end{gathered}$ | Type of service |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Fillings | Extractions | Cleaning or examination | $\begin{aligned} & \text { Straight- } \\ & \text { ening } \end{aligned}$ | Gum treatment | Denture work | Other and unknown |
| Under $\$ 2,000$ |  |  |  |  |  |  |  |  |
| A11 ages------ | 100.0 | 27.4 | 37.1 | 12.2 | 1.2 | 1.6 | 14.2 | 8.3 |
| 0-4---------------- | 100.0 | - | 54.5 | - | - | - | - | 45.5 |
| 5-14----------------- | 100.0 | 39.7 | 31.8 | 5.3 | 3.5 | 5.8 | 0.5 | 13.9 |
| 15-24--------------- | 100.0 | 41.9 | 41.3 | 8.2 | 1.8 | - | 3.2 | 5.7 |
| 25-44--------------- | 100.0 | 28.8 | 40.1 | 20.6 | 1.6 | 2.0 | 5.4 | 7.1 |
| 45-64--------------- | 100.0 | 15.6 | 40.0 | 14.4 | - | 0.2 | 23.7 | 6.4 |
| 65+------------------ | 100.0 | 15.7 | 25.5 | 8.3 | - | 2.2 | 37.2 | 12.0 |
| \$2,000-3,999 |  |  |  |  |  |  |  |  |
| A11 ages----- | 100.0 | 35.6 | 23.0 | 13.5 | 2.1 | 2.0 | 13.0 | 14.0 |
| 0-4------------------ | 100.0 | 61.2 | 14.6 | 8.7 | - | - | - | 15.5 |
| 5-14----------------- | 100.0 | 52.3 | 15.4 | 16.5 | 3.3 | 0.4 | 3.4 | 11.2 |
| 15-24--------------- | 100.0 | 41.5 | 24.2 | 10.4 | 6.7 | 2.5 | 3.1 | 15.0 |
| 25-44--------------- | 100.0 | 35.2 | 26.3 | 14.3 | 0.1 | 2.5 | 10.0 | 16.3 |
| 45-64--------------- | 100.0 | 22.4 | 25.2 | 14.7 | - | 3.1 | 27.0 | 9.0 |
| 65+------------------ | 100.0 | 9.9 | 19.1 | 11.0 | - | - | 43.3 | 21.3 |
| \$4, 000-6,999 |  |  |  |  |  |  |  |  |
| A11 ages----- | 100.0 | 46.5 | 16.4 | 17.0 | 2.5 | 1.8 | 6.7 | 12.2 |
| 0-4----------------- | 100.0 | 39.0 | 5.8 | 34.9 | - | - | 2.2 | 24.6 |
| 5-14---------------- | 100.0 | 50.0 | 15.3 | 18.6 | 5.5 | 0.5 | 0.9 | 13.1 |
| 15-24--------------- | 100.0 | 58.9 | 15.7 | 10.7 | 3.6 | 0.8 | 5.2 | 6.9 |
| 25-44--------------- | 100.0 | 44.7 | 18.1 | 17.2 | 0.9 | 3.3 | 5.6 | 13.7 |
| 45-64--------------- | 100.0 | 36.6 | 17.4 | 17.4 | 0.7 | 2.4 | 15.8 | 11.8 |
| 65+------------------ | 100.0 | 31.7 | 13.1 | 12.5 | - |  | 39.5 | 3.7 |
| \$7,000+ |  |  |  |  |  |  |  |  |
| A11 ages----- | 100.0 | 45.7 | 9.9 | 21.8 | 5.3 | 1.1 | 7.9 | 13.0 |
| 0-4----------------- | 100.0 | 43.5 | 9.2 | 37.8 | - | - | - | 19.6 |
| 5-14---------------- | 100.0 | 50.1 | 4.8 | 19.6 | 16.3 | 0.1 | 1.5 | 12.4 |
| 15-24--------------- | 100.0 | 59.5 | 9.9 | 15.4 | 7.1 | 0.7 | 2.3 | 8.1 |
| 25-44--------------- | 100.0 | 45.6 | 14.6 | 24.8 | 0.4 | 1.5 | 7.6 | 11.7 |
| 45-64---------------- | 100.0 | 36.1 | 7.9 | 21.6 | 0.1 | 1.6 | 17.8 | 18.0 |
| 65+----------------- | 100.0 | 12.7 | 25.1 | 37.7 | - | 3.4 | 15.6 | 8.4 |
| Unknown |  |  |  |  |  |  |  |  |
| All ages----- | 100.0 | 41.5 | 21.2 | 16.3 | 4.5 | 0.8 | 8.0 | 9.7 |
| 0-4----------------- | 100.0 | 32.2 | - | 34.1 | - | - | - | 33.8 |
| 5-14---------------- | 100.0 | 51.8 | 12.9 | 16.6 | 8.6 | - | 2.8 | 11.3 |
| 15-24--------------- | 100.0 | 61.8 | 21.6 | 13.0 | - | - | 3.3 | 2.9 |
| 25-44--------------- | 100.0 | 29.8 | 24.3 | 15.9 | 12.3 | 1.6 | 2.0 | 14.0 |
| 45-64---------------- | 100.0 | 34.3 | 22.6 | 18.0 | - | 1.8 | 17.8 | 8.8 |
| 65+------------------ | 100.0 | 13.6 | 29.7 | 18.4 | -- | - | 26.7 | 11.6 |

${ }^{1}$ The sum of the percentages may add to more than 100 percent because one visit may involve more than one type of service.

Table 20. Number of dental visits by type of service, education of family head, and age: United States, July 1957-June 1958
[Data are based on household interviews during July 1957-June 1958. Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix 1 . Definitions of terms are given in Appendix 11]

|  |  | Type of service |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Education of family head and age | $\underset{\text { Total }}{\text { visits }}$ | Fillings | Extractions | Cleaning or examination | $\begin{aligned} & \text { Straight- } \\ & \text { ening } \end{aligned}$ | Gum treatment | Denture work | Other and unknown |



[^11] type of service.

Table 21. Percent distribution of dental visits by type of service according to education of family head and age: United States, July 1957-June 1958
[Data are based on household interviews during July 1957-June 1958. Data refer to the civilian noninstitutional population of the United States. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix 1. Definitions of terms are oiven in Appendix il]

| Education of family head and age | $\begin{gathered} \text { Total } \\ \text { visits }^{1} \end{gathered}$ | Type of service |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Fillings | Extractions | Cleaning or examination | $\begin{gathered} \text { Straight- } \\ \text { ening } \end{gathered}$ | Gum treatment | Denture work | Other and unknown |
| - Under 5 years |  |  |  |  |  |  |  |  |
| All ages------ | 100.0 | 37.7 | 31.6 | 10.1 | 2.9 | 1.2 | 12.5 | 7.4 |
| 0-4----------------- | 100.0 | 51.9 | 48.1 | - | - | - | - | - |
| 5-14---------------- | 100.0 | 42.1 | 36.4 | 15.1 | 14.9 | - | - | 12.7 |
| 15-24--------------- | 100.0 | 60.0 | 27.2 | 2.9 | 1.0 | - | 9.7 | 1.0 |
| 25-44--------------- | 100.0 | 39.1 | 30.6 | 10.9 | 4.0 | 3.7 | 4.4 | 7.4 |
| 45-64--------------- | 100.0 | 23.3 | 38.9 | 7.6 | - | - | 21.1 | 10.7 |
| 65+----------------- | 100.0 | 27.3 | 14.7 | 25.2 | - | 3.9 | 24.0 | 5.0 |
| 5-8 years |  |  |  |  |  |  |  |  |
| A11 ages------ | 100.0 | 39.6 | 24.2 | 13.6 | 1.3 | 1.4 | 11.3 | 12.3 |
| 0-4----------------- | 100.0 | 57.5 | - | 21.8 | - | - | - | 20.8 |
| 5-14---------------- | 100.0 | 56.5 | 18.6 | 15.4 | 2.2 | 1.2 | 0.6 | 8.7 |
| 15-24--------------- | 100.0 | 48.5 | 27.8 | 9.6 | 2.8 | 1.0 | 5.7 | 9.8 |
| 25-44--------------- | 100.0 | 32.2 | 30.0 | 14.0 | - | 3.4 | 8.1 | 17.0 |
| 45-64--------------- | 100.0 | 32.8 | 22.5 | 15.7 | 1.0 | 0.2 | 19.0 | 10.9 |
| 65+----------------- | 100.0 | 13.7 | 21.0 | 8.4 | - | 0.6 | 40.7 | 19.0 |
| 9-12 years |  |  |  |  |  |  |  |  |
| A11 ages------ | 100.0 | 43.8 | 27.4 | 16.5 | 3.2 | 2.0 | 8.5 | 11.9 |
| 0-4----------------- | 100.0 | 47.3 | 11.6 | 25.2 | $\overline{-}$ | - | 1.1 | 21.0 |
| 5-14----------------- | 100.0 | 51.3 | 11.6 | 17.5 | 8.7 | 0.5 | 1.4 | 12.6 |
| 15-24--------------- | 100.0 | 52.6 | 18.3 | 11.8 | 4.9 | 1.5 | 3.4 | 9.4 |
| 25-44--------------- | 100.0 | 43.2 | 21.1 | 17.6 | 0.2 | 3.3 | 8.4 | 10.6 |
| 45-64---------------- | 100.0 | 28.8 | 16.2 | 17.8 | - | 3.1 | 21.1 | 15.2 |
| 65+----------------- | 100.0 | 17.3 | 33.1 | - 8.5 | - | .- | 33.6 | 7.9 |
| College |  |  |  |  |  |  |  |  |
| All ages----- | 100.0 | 45.5 | 8.8 | 24.1 | 4.7 | 0.9 | 6.2 | 13.7 |
| 0-4----------------- | 100.0 | 35.8 | 4.5 | 41.0 | - | - | 1.5 | 24.1 |
| 5-14---------------- | 100.0 | 43.3 | 6.9 | 21.9 | 14.3 | 0.3 | 2.1 | 15.2 |
| 15-24--------------- | 100.0 | 63.3 | 7.3 | 16.5 | 7.3 | - | 1.2 | 6.3 |
| 25-44--------------- | 100.0 | 47.4 | 10.7 | 26.2 | 1.3 | 0.8 | 3.7 | 15.2 |
| 45-64--------------- | 100.0 | 37.3 | 8.9 | 24.2 | - | 2.5 | 16.2 | 13.7 |
| 65+----------------- | 100.0 | 19.9 | 11.4 | 36.4 | - | - | 25.3 | 10.0 |
| Unknown |  |  |  |  | - |  |  |  |
| All ages------ | 100.0 | 32.8 | 16.4 | 9.4 | 17.5 | 2.6 | 11.4 | 11.8 |
| 0-4----------------- | 100.0 | - | - | - | - | - | - | 100.0 |
| 5-14---------------- | 100.0 | 43.6 | 4.2 | 1.8 | 27.0 | - | 2.3 | 22.6 |
| 15-24--------------- | 100.0 | 56.3 | 26.6 | 10.6 |  | - | - | 6.4 |
| 25-44--------------- | 100.0 | 21.1 | 16.4 | 4.9 | 37.6 | 1.3 | 6.1 | 14.7 |
| 45-64--------------- | 100.0 | 47.3 | 24.8 | 15.0 |  | 2.2 | 12.4 | 2.6 |
| 65+----------------- | ! 100.0 |  | 6.9 | 21.8 |  | 13.6 | 50.7 | 6.9 |

[^12]Table 22. Number of dental visits by type of service, family income, education of family head, and age: United States, July 1957-June 1958
[Data are based on household interviews during July 1957-June 1958. Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix 1 . Definitions of terms are given in Appendix 11 ]

| Family income, education of family head, and age | $\begin{array}{\|c} \text { Total } \\ \text { visits } \end{array}$ | Type of service |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { Fil1- } \\ & \text { ings } \end{aligned}$ | Extractions | Cleaning or examination | $\begin{aligned} & \text { Straight- } \\ & \text { ening } \end{aligned}$ | Gum treatment | Denture work | ```Other and unknown``` |

Number of dental visits in millions
UNDER $\$ 4,000$
Under 9 years of school
A11 ages-o--


Under 9 years of school
All ages-------------




$\qquad$
$\qquad$
9 years or over of school
A11 ages-------------

${ }^{1}$ The sum of visits by type of service may be greater than the total because one visit may involve more than one type of service.

Table 23. Percent distribution of dental visits by type of service according to family income, education of family head, and age: United States, July 1957-June 1958
[Data are based on household interviews during July 1957-June 1958. Data refer to the civilian noninstitutional population of the United States. The survey design, general qualifications, and information on the rellability of the estimates are given in Appendix l. Definitions of terms are given in Appendix 11]

| Family income, education of family head, and age | $\underset{\text { Tisits }^{1}}{\text { Total }}$ | Type of service |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Fil1ings | Extractions | Cleaning or examInation | $\begin{gathered} \text { Straight- } \\ \text { ening } \end{gathered}$ | Gum treatment | Denture work | Other and unknown |
|  |  |  |  |  |  |  |  |  |
| 0-4 | 100.0 | 100.0 | - | - | - | - | - | - |
| 5-14---------------------- | 100.0 | 48.4 | 29.1 | 7.2 | 3.3 | 4.3 | 0.6 | 9.2 |
| 15-24--------------------- | 100.0 | 31.7 | 42.6 | 6.4 | 3.9 | 2.2 | 5.2 | 14.1 |
| 25-44--------------------- | 100.0 | 33.6 | 41.2 | 14.0 | - | 2.9 | 5.1 | 7.4 |
|  | 100.0 | 19.0 | 36.4 | 17.7 |  |  | 20.1 | 8.0 |
| 65t-------------------------- | 100.0 | 14.0 | 17.9 | 13.4 | - | 2.2 | 35.6 | 21.7 |
| 9 years or over of school |  |  |  |  |  |  |  |  |
| All ages------------ | 100.0 | 36.1 | 22.4 | 13.6 | 2.2 | 1.8 | 13.4 | 12.9 |
| 0-4------------------------ | 100.0 | 57.5 | 16.5 | 8.9 | - | - | - | 17.2 |
| 5-14------------------------ | 100.0 | 48.7 | 14.6 | 17.5 | 3.5 | 0.4 | 3.9 | 13.2 |
|  | 100.0 | 47.0 | 22.2 | 11.8 | 6.2 | 1.4 | 1.9 | 10.7 |
| 25-44---------------------- | 100.0 | 33.7 | 24.8 | 16.6 | 0.7 | 2.0 | 10.4 | 16.9 |
| 45-64------------------------ | 100.0 | 20.9 | 23.4 | 10.9 | - | 4.5 | 33.4 | 7.8 |
| 65+-------------------------- | 100.0 | 12.5 | 29.3 | 6.0 | - | - | 42.1 | 10.9 |
| $\$ 4,000+$Under 9 years of school |  |  |  |  |  |  |  |  |
| All ages------------ | 100.0 | 46.3 | 18.6 | 13.7 | 1.4 | 1.1 | 10.4 | 12.2 |
|  | 100.0 | 58.6 | 5.7 | 24.2 | $\bar{\square}$ | - | - | 11.8 |
| 5-14----------------------1 | 100.0 | 58.2 | 17.5 | 18.3 | 2.0 | - | 0.5 | 9.5 |
|  | 100.0 | 62.0 | 16.6 | 9.8 | 1.8 | , | 8.0 | 5.1 |
| 25-44----------------------- | 100.0 | 33.6 | 24.4 | 13.9 | 0.8 | 3.9 | 8.9 | 18.5 |
| 45-64---------------------- | 100.0 | 40.7 | 16.1 | 11.8 | 1.5 | - | 18.6 | 13.7 |
| 65+------------------------1-2- | 100.0 | 25.3 | 13.2 | 12.9 | - | - | 40.5 | 8.2 |
| 9 years or over of school |  |  |  |  |  |  |  |  |
| All ages------------ | 100.0 | 46.1 | 12.1 | 20.7 | 4.3 | 1.6 | 6.4 | 12.7 |
| 0-4------------------------ | 100.0 | 38.5 | 7.1 | 37.2 | - | - | 1.6 | 24.1 |
| 5-14------------------------- | 100.0 | 48.2 | 9.2 | 19.3 | 11.9 | 0.4 | 1.3 | 13.6 |
| 15-24---------------------- | 100.0 | 58.4 | 11.8 | 13.7 | 6.3 | 1.0 | 2.7 | 8.2 |
| 25-44-----------------------1-2- | 100.0 | 47.4 | 15.1 | 22.0 | 0.7 | 2.3 | 5.9 | 11.5 |
|  | 100.0 | 34.6 | 10.8 | 22.4 | - | 2.7 | 16.4 | 15.9 |
| 65+------------------------- | 100.0 | 22.9 | 22.1 | 30.9 | - | - | 22.5 | 4.3 |
| INCOME OR EDUCATION UNKNOWN |  |  |  |  |  |  |  |  |
| All ages------------ | 100.0 | 41.3 | 20.1 | 15.4 | 4.8 | 1.2 | 8.9 | 10.4 |
| 0-4-------------------------- | 100.0 | 32.2 | - | 34.1 | - | - | - | 33.8 |
|  | 100.0 | 50.4 | 11.2 | 14.4 | 12.5 | - | 2.5 | 12.5 |
| 15-24---------------------- | 100.0 | 62.1 | 21.0 | 12.9 | - | - | 3.0 | 3.3 |
| 25-44---------------------1 | 100.0 | 31.6 | 22.0 | 15.1 | 10.6 | 1.8 | 3.4 | 16.2 |
|  | 100.0 | 34.7 | 23.9 | 18.0 | - | 2.0 | 17.3 | 7.8 |
| 65+------------------------ | 100.0 | 11.5 | 25.2 | 15.6 | - | 3.3 | 32.6 | 11.6 |

[^13] service.

Table 24. Population used in obtaining rates shown in this publication by residence, sex, and age: United States, July 1957-June 1959
[Data are based on household interviews during July 1957-June 1959. Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix 1 . Definitions of terms are given in Appendix 11]

| Sex and age | Residence |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | All areas | Urban |  |  | Rural |  |
|  |  | Total | Inside urbanized areas | Other urban places | Nonfarm | Farm |
|  | Population in thousands |  |  |  |  |  |
|  | 169,835 | 102,900 | 74,419 | 28,481 | 46,783 | 20,151 |
| 0-4----------------------------------- | 19,499 | 11,028 | 7,931 | 3,097 | 6,345 | 2,126 |
|  | 33,804 | 18,611 | 13,151 | 5,460 | 10,531 | 4,662 |
| 15-24--------------------------------- | 21,523 | 13,022 | 9,206 | 3,816 | 5,607 | 2,895 |
| 25-44 | 45,579 | 27,928 | 20,715 | 7,213 | 13,278 | 4,373 |
|  | 34,763 | 22,854 | 16,883 | 5,971 | 7,674 | 4,234 |
| 65+- | 14,667 | 9,457 | 6,532 | 2,924 | 3,348 | 1,862 |
| Male |  |  |  |  |  |  |
| All ages------------------------- | 82,633 | 49,020 | 35,416 | 13,604 | 23,191 | 10,422 |
| 0-4---------------------------------- | 9,932 | 5,599 | 4,002 | 1,597 | 3,238 | 1,095 |
|  | 17,249 | 9,392 | 6,587 | 2,805 | 5,425 | 2,431 |
|  | 10,052 | 5,922 | 4,160 | 1,762 | 2,606 | 1,524 |
| 25-44------------------------------------ | 21,854 | 13,244 | 9,836 | 3,408 | 6,467 | 2,143 |
| 45-64- | 16,858 | 10,794 | 7,992 | 2,803 | 3,837 | 2,227 |
|  | 6,687 | 4,069 | 2,839 | 1,230 | 1,617 | 1,001 |
| Female |  |  |  |  |  |  |
| All ages-------------------------- | 87,202 | 53,880 | 39,003 | 14,877 | 23,593 | 9,729 |
| 0-4---------------------------------- | 9,567 | 5,429 | 3,929 | 1,500 | 3,107 | 1,031 |
|  | 16,555 | 9,219 | 6,564 | 2,655 | 5,106 | 2,231 |
| 15-24----------------------------------- | 11,471 | 7,100 | 5,046 | 2,055 | 3,000 | 1,371 |
|  | 23,725 | 14,684 | 10,879 | 3,805 | 6,811 | 2,230 |
|  | 17,904 | 12,060 | 8,892 | 3,169 | 3,837 | 2,007 |
| 65+----------------------------------- | 7,980 | 5,388 | 3,693 | 1,695 | 1,732 | 860 |

NOTE: For officlal population estimates for more general use, see Bureau of the Census reports on the civilian population of the Unlted States, in Gurrent Population Reports: Series $\mathrm{P}-20, \mathrm{P}-25, \mathrm{P}-50, \mathrm{P}-57$, and $\mathrm{P}-60$.

Table 25. Population used in obtaining rates shown in this publication by region, sex, and age: United States, July 1957-June 1959
[Data are based on household interviews during July 1957-June 1959. Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix 1 . Definitions of terms are given in Appendix 11]

| Sex and age | Region |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { All } \\ & \text { areas } \end{aligned}$ | Northeast | $\begin{aligned} & \text { North } \\ & \text { Central } \end{aligned}$ | South | West |
|  | Population in thousands |  |  |  |  |
|  | 169,835 | 42,379 | 51,509 | 51,622 | 24,325 |
|  | 19,499 | 4,283 | 6,207 | 6,021 | 2,987 |
|  | 33,804 | 7,664 | 10,231 | 10,909 | 5,001 |
| 15-24- | 21,523 | 4,940 | 6,357 | 7,343 | 2,883 |
| 25-44- | 45,579 | 11,765 | 13,859 | 13,209 | 6,747 |
| 45-64- | 34, 7.63 | 9,799 | 10,267 | 10,036 | $4,661$ |
| 65+--- | 14,667 | 3,928 | 4,588 | 4,105 | $2,046$ |
| Male |  |  |  |  |  |
|  | 82,633 | 20,590 | 25,382 | 24,896 | 11,765 |
|  | 9,932 | 2,190 | 3,202 | 3,010 | 1,531 |
| 5-14- | 17,249 | 3,902 | 5,230 | 5,596 | 2,520 |
| 15-24- | $10,052$ | 2,418 | 2,931 6,796 | 3,440 6,225 | 1,263 3,206 |
| 25-44 | 21,854 | 5,627 | 6,796 | 6,225 | 3,206 |
| $45-64$ $65+$ | 16,858 6,687 | $\begin{aligned} & 4,735 \\ & 1719 \end{aligned}$ | 5,070 2,152 | 4,769 1,856 | $\begin{array}{r} 2,285 \\ 960 \end{array}$ |
| Female |  |  |  |  |  |
| All ages---------------------------------- | 87,202 | 21,788 | 26,127 | 26,726 | 12,561 |
| 0-4 | 9,567 | 2,094 | 3,005 | 3,011 | 1,456 |
| 5-14 | 16,555 | 3,761 | 5,000 | 5,313 | 2,481 |
| 15-24 | 11,471 | 2,522 | 3;426 | 3,903 | 1,620 |
| 25-44- | 23,725 | 6,138 | 7,062 | 6,983 | 3,541 |
| 45-64 | 17,904 | 5,064 | 5,198 | 5,267 | 2,376 |
| 65+- | 7,980 | 2,209 | 2,436 | 2,249 | 1,086 |

NOTE: For official population estimates for more general use, see Bureau of the Census reports on the civilian population of the United States, in Current Population Reports: Series P-20, P-25, P-50, P-57, and P-60.

Table 26. Population used in obtaining rates shown in this publication by region and race: United States, July 1957-June 1959
[Data are based on household interviews during July 1957-June 1959. Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the rellability of the estimates are given in Appendix 1 . Definitions of terms are given in Appendix. II]

| Race | Region |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\stackrel{\text { All }}{\text { regions }}$ | Northeast | $\begin{aligned} & \text { North } \\ & \text { Central } \end{aligned}$ | South | West |
| All races | Population in thousands |  |  |  |  |
|  | 169,835 | 42,379 | 51,509 | 51,622 | 24,325 |
| White | 151,034 | 39,739 | 47,908 | 40,651 | 22,736 |
| Nonwhite- | 18,800 | 2,640 | 3,600 | 10,971 | 1,590 |

NOTE: For official population estimates for more general use, see Bureau of the Census reports on the civilian population of the United States, in Current Population Reports: Series P-20, P-25, P-50, P-57, and P-60.

Table 27. Population used in obtaining rates shown in this publication by race and age: United States, July 1957-June 1959
(See headnote on table 26 )

| Age | Race |  |  |
| :---: | :---: | :---: | :---: |
|  | All races | White | Nonwhite |
| All ages | Population in thousands |  |  |
|  | 169,835 | 151,034 | 18,800 |
| 0-4- | 19,499 | 16,769 | 2,729 |
| 5-14- | 33,804 | 29,392 | 4,412 |
| 15-24-- | 21,523 | 18,822 | 2,701 |
| 25-44- | 45,579 | 40,786 | 4,793 |
| 45-64- | 34,763 | 31,611 | 3,152 |
| 65+ | 14,667 | 13,653 | 1,013 |

NOTE: For official population estimates for more general use, see Bureau of the Census reports on the civilian population of the United States, in Current Population Reports: Series P-20, P-25; P-50, P-57, and P-60.

Table 28. Population used in obtaining rates shown in this publication by family income and age: United States, July 1957-June 1959
[Data are based on household interviews during July 1957-June 1959. Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix 1 . Definitions of terms are given in Appendix 11]

| Age | Family income |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | All <br> incomes | Under $\$ 2,000$ | $\begin{gathered} \$ 2,000- \\ 3,999 \end{gathered}$ | $\begin{gathered} \$ 4,000- \\ 6,999 \end{gathered}$ | \$7,000+ | Unknown |
| All age | Population in thousands |  |  |  |  |  |
|  | 169,835 | 25,177 | 36,491 | 61,566 | 35,719 | 10,881 |
|  | 19,499 | 2,311 | $\begin{aligned} & 4,737 \\ & 7,029 \end{aligned}$ | $\begin{array}{r} 8,391 \\ 13,479 \end{array}$ | $\begin{aligned} & 3,236 \\ & 7,547 \end{aligned}$ | $\begin{array}{r} 824 \\ 1,747 \end{array}$ |
|  | 33;804 | 4,003 |  |  |  |  |
| 15-24- | 21,523 | 3,358 | $\begin{aligned} & 5,183 \\ & 8,829 \end{aligned}$ | $\begin{array}{r} 7,274 \\ 19,204 \end{array}$ | $\begin{array}{r} 4,172 \\ 11,098 \end{array}$ | 1,536 |
| 25-44 | 45,579 | 4,111 |  |  |  | 2,337 |
|  | $\begin{aligned} & 34,763 \\ & 14,667 \end{aligned}$ | 5,456 | $\begin{aligned} & 7,357 \\ & 3,356 \end{aligned}$ | $\begin{array}{r} 10,806 \\ 2,412 \end{array}$ | $\begin{aligned} & 8,134 \\ & 1,532 \end{aligned}$ | $\begin{aligned} & 3,009 \\ & 1,428 \end{aligned}$ |
|  |  | 5,938 |  |  |  |  |

NOTE: For official population estimates for more geiseral $i s$, see Bureau of the Census reports on the civilian population of the United States, in Current Population fiesorts Series P-20, P-25, P-50, P-57, and P-60.

Table 29. Pop lation used in obtaining rates shown in this publication by education of family head and age: United States, July 1957-June 1959
(See headnote on table 28)

| Age | Education of family head |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Al1 } \\ \text { education } \\ \text { groups } \end{gathered}$ | $\begin{gathered} 0-4 \\ \text { years } \end{gathered}$ | $\begin{gathered} 5-8 \\ \text { years } \end{gathered}$ | $\begin{aligned} & 9-12 \\ & \text { years } \end{aligned}$ | College | Unknown |
| All ages---------------------- | Population in thousands |  |  |  |  |  |
|  | 169,835 | 12,620 | 49,665 | 74,495 | 28,850 | 4,205 |
| 0-4- | 19,499 | 970 | 4,183 | 10,116 | 3,830 | 400 |
| 5-14 | 33,804 | 2,354 | 9,162 | 15,804 | 5,825 | 658 |
| 15-24- | 21,523 | 1,513 | 6,126 | 10,031 | 3,359 | 495 |
| 25-44- | 45,579 | 2,178 | 10,482 | 22,791 | 9,293 | 834 |
| 45-64 | 34,763 | 3,238 | 13,254 | 12,063 | 5,043 | 1,165 |
| 65+- | 14,667 | 2,366 | 6,458 | 3,691 | 1,500 | 652 |

NOTE: For official population estimates for more general use, see Bureau of the Census reports on the civilian population of the United States, in Current Population Reports: Series P-20, P-25, P-50, P-57, and P-60.

Table 30. Population used in obtaining rates shown in this publication by family income, education of family head, and age: United States, July 1957-June 1959
[Data are based on household interviews during July 1957-June 1959. Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix l. Definitions of terms are given in Appendix 11]

| Age | Total | Family income |  |  |  | ```Income or education unknown``` |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Under \$4,000 |  | \$4,000+ |  |  |
|  |  | Education of family head |  |  |  |  |
|  |  | Under 9 years | 9 years or over | Under 9 years | 9 years or over |  |
| A11 age0-4----------------5-14-- | Population in thousands |  |  |  |  |  |
|  | 169,835 | 34,038 | 25,927 | 24,090 | 71,830 | 13,950 |
|  | 19,499 | 3,010 | 3,844 | 1,876 | 9,642 | 1,127 |
|  | 33,804 | 6,311 | 4,440 | 4,565 | 16,269 | 2,218 |
| 15-24- | 21,523 | 3,779 | 4,581 | 3,380 | 7,889 | 1,894 |
| 25-44 | 45,579 | 6,066 | 6,559 | 5,833 | 24,148 | 2,974 |
| 45-64 | 34,763 | 8,377 | 4,046 | 6,822 | 11,673 | 3,844 |
| 65+- | 14,667 | 6,494 | 2,457 | 1,615 | 2,208 | 1,893 |

NOTE: For official population estimates for more general use, see Bureau of the Census reports on the civllian population of the United States, in Current Population Reports: Series P-20, P-25, P-50, P-57, and P-60.

Table 31. Population used in obtaining rates shown in this publication by age and demographic characteristic: United States, July 1957-June 1958
[Data are based on household interviews during July l957-June 1958.: Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix l. Definitions of terms are given in Appendix 11]


NOTE: For official population estimates for more general use, see Bureau of the Census reports on the civilian population of the United States, in Current Population Reports: Series $\mathrm{P}-20, \mathrm{P}-25, \mathrm{P}-50, \mathrm{P}-57, \mathrm{and} \mathrm{P}-60$.

## APPENDIX I

## TECHNICAL NOTES ON METHODS

## Background of This Report

This report on Dental Care is one of a series of statistical reports which cover separate health-related topics prepared by the U.S. National Health Survey. The report is based on information collected in a continuing nationwide sample of households in the Health Interview Survey, which is a main aspect of the program.

The Health Interview Survey uses a questionnaire which, in addition to personal and demographic characteristics, requests information on illnesses, injuries, chronic conditions, medical care, dental care, and hospitalization. As interview data relating to each of these various broad subject areas are tabulated and analyzed, separate reports are issued covering one or more specific topics. The present report contains data based on the consolidated sample for 52 weeks of interviewing ending June 29, 1958, and data based on the consolidated sample for 104 weeks of interviewing ending June 28. 1959.

The population covered by the sample for the Health Interview Survey is the civilian population of the United States living at the time of the interview. Although the sample collection covers persons who are inmates of resident-type institutions, data for these persons are not included in the figures given in this report. The sample does notinclude members of the Armed Forces, United States nationals living in foreign countries, and crews of vessels. It should also be noted that the estimates shown do not represent a complete inventory of dental visits for any specified calendar period since no adjustment has been made for persons who made dental visits during the two-week period prior to the week of interview and who died prior to the household interview.

## Statistical Design of the

Health Interview Survey
General plan. -The sampling plan of the survey follows a multistage probability design which permits a continuous sampling of the civilian population of the United States. The first stage of this design consists of drawing a sample from the 1,900 geographically defined Primary Sampling Units (PSU's) into which the United States has been divided. A PSU is a county, a group of contiguous counties, or a Standard Metropolitan Area.

During the first 18 months of the Health interview Survey, 372 Primary Sampling Units were employed. This was increased to 500 PSU's starting in January, 1959, resulting in an increase in the size of the sample. However, the basic sampling design and methods of estimating remained unchanged during the two-year period covered by this report.

With noloss in general understanding, the remaining stages can be telescoped and treated in this discussion as an ultimate stage. Within $\mathrm{PSU}^{\mathrm{t}} \mathrm{s}$, then, ultimate
stage units called segments are defined, also geographically, in such a manner that each segment contains an expected six households in the sample. Each week a random sample of about 120 segments is drawn. In the approximately 700 households in those segments persons are interviewed concerning illnesses, injuries, chronic conditions, disability; and other factors related to health.

The household members interviewed each week are a representative sample of the population so that samples for successive weeks can be combined into larger samples for, say a calendar quarter, or one or more years. Thus the design permits both continuous measurement of characteristics of high incidence or prevalence in the population, and through the larger consolidated samples, more detailed analysis of less common characteristics and smaller categories. The continuous collection has administrative and operational advantages, as well as technical assets, since it permits field work to be handled with an experienced, stable staff.

Sample size and geographic detail. - The national sample plan over the 12 -month period ending June 1958 included approximately 115,000 persons from 36,000 households in 6,000 segments with representation from every State. Over the 24 -month period ending June 1959, the sample included approximately 235,000 persons from 73,000 households in 12,200 segments. The overall sample was designed in such a fashion, that from the annual sample, tabulations can be provided for various geographic sections of the United States and for urban and rural sectors of the Nation.

Collection of data. - The field operations for the household survey are performed by the Bureau of the Census under specifications established by the Public Health Service. In accordance with these specifications the Bureau of the Census designs and selects the sample, conducts the field interviewing acting as collecting agent for the Public Health Service, and edits and codes the questionnaires: Tabulations are prepared by the Public Health Service using the Bureau of the Census electronic computers.

Estimating methods.-Each statistic produced by the survey-for example, the number of dental visits made during a specified period-is the result of two stages of ratio estimation. In the first of these, the ratio factor is the 1950 decennial population count to the estimated population for 1950 for the U.S. National Health Survey's first-stage sample of PSU's. These factors are applied separately for more than 50 colorresidence classes.

Later, ratios of sample-produced estimates of the population to official Bureau of the Census figures for current population in about 60 age-sex-color classes are computed, and serve as second-stage factors for ratio estimating.

The effect of the ratio estimating process is to make the sample more closely representative of the
population by age, sex, color, and residence, thus reducing sampling variance.

As noted, each week's sample represents the population living during that week and characteristics of that population. Consolidation of samples over a time period, say a calendar quarter, produces estimates of average characteristics of the United States population for that calendar quarter. Similarly, population data for a year are averages of the four quarterly figures.

For statistics measuring the number of occurrences during a specified time period, such as number of dental visits, a similar computational procedure is used, but the statistics have a different interpretation. For the dental visit items, the questionnaire asks for the respondent's experience over the two calendar weeks prior to the week of interview. In such instances the estimated quarterly total for the statistic is simply 6.5 times the average two-week estimate produced by the 13 successive samples taken during the period. The annual total is the sum of the four quarters. The average annual total is the sum for several years divided by the number of years. Thus, the experience of persons interviewed during a year experience which actually occurred for each person in a two-calendar-week interval prior to week of interview-is treated in analysis as though it measured the total of such experience occurring in the year. Such interpretation leads to no significant bias.

## General Qualifications

Nonresponse. - Data were adjusted for nonresponse by a procedure which imputed to persons in a household not interviewed the characteristics of interviewed persons in the same segment. The total noninterview rate was 5 percent; 1 percent was refusal, and the remainder was primarily due to the failure to find any eligible household respondent after repeated trials.

The interview process.- The statistics presented in this report are based on replies secured in interviews of persons in the sampled households. Each person 18 years, and over, available at the time of interview, was interviewed individually. Proxy respondents within the household were employed for children and for adults not available at the time of the interview, provided the respondent was closely related to the person about whom information was being obtained.

Rounding of numbers. - The orriginal tabulations on which the data in this report are based show all estimates to the nearest whole unit. All consolidations were made from the original tabulations using the estimates to the nearest unit. In the final published tables the figures are rounded to the nearest thousand or tenth of million. Because of sampling error, however, they are not necessarily accurate to that detail. Derived statistics, , such as rates and percent distributions, are computed after the estimates on which they are based have been rounded to the nearest thousand.

Population figures.-Some of the published tables include populationfigures for specified categories. Except for certain over-all totals by age, sex, and color (which are adjusted to independent estimates); these figures are based on the sample of households in the U.S. National Health Survey. They are given primarily for the purpose of providing denominators for rate computation, and for this purpose are more appropriate for use with the accompanying measures of health characteristics than other population data that may be available. In some instances they will permit users to recombine published data into classes more süitable to their specific needs. With the exception of the over-all
totals by age, sex, and color, mentioned above, the population figures may in some cases differ from corresponding figures (which are derived from different sources) published in reports of the Bureau of the Census. For population data for general use, see the official estimates presented in Bureau of the Census reports in the $\mathrm{P}-20, \mathrm{P}-25, \mathrm{P}-50, \mathrm{P}-57$, and $\mathrm{P}-60$ series.

## Reliability of Estimates

Since the estimates are based on a sample, they will differ somewhat from the figures that would have been obtained if a complete census had been taken using the same schedules, instructions, and interviewing personnel and procedures. As in any survey, the results are also subject to measurement error.

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 which arises in the measurement process. It does not include estimates of any biases which 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 2h times as large.

In order to derive standard errors which would be applicable to a wide variety of health statistics and which could be prepared at a moderate cost, a number of approximations were required. As a result; the tables of standard errors: shown in this Appendix should be interpreted as proviciing an estimate of approximate standard error rather than as the precise standard error for any specific statistic.

The following guides will enable the reader to determine the sampling errors for the data contained in this report.

1. Approximate standard errors for estimates of the number of dental visits, the number of dental visits by type of service, and the number of persons in a population group ${ }^{1}$ are obtained from the appropriate columns of table I .
2. Approximate standard errors for percentage distributions of dental visits are given in tables IIa and IIb.
3. Approximate standard errors for rates showing the number of dental visits per person per year (or rates of dental visits by type of service) for persons in an age, sex, or color group or for the total population are obtained by dividing the standard error of the numerator used in obtaining the rate (obtained from Appendix table' 1 ) by the numerator itself and multiplying by the rate. For example, the average number of dental visits per person per year (calculated from 2 years of sampling) for females 25-44 years of age is 2.0 visits. The numerator used in obtaining the rates was $47,300,000$ (table 1). The standard error for an estimate of this size is approximately 2,319,000: 'Dividing 2,319,000 by
[^14]Table I. Standard errors of estimates of aggregates
(All numbers shown in thousands)


Illustration of use of table l--Approximately li5, 800,000 dentäl visits made during the period July 1957-June l958, involved work related to the filling of teeth. Using column. (c) above, the sampling error for an estimate of $100,000,000$ visits is $4,500,000$ and for an estimate of $200,000,000$ visits the sampling error is 6,500,000. Interpolating; the sampling érror of an estimated $115,800,000$ visits would be $4,800,000$.

47,300,000 gives 0.05 . Multiplying the rate 2.0 by 0.05 gives 0.1 as the approximate standard error for a rate of 2.0 visits.
4. A rough approximation of standard errors for rates showing the average number of dental visits per person per year (or rates of dental visits by type of service) for persons in a residence, regional, income, or educational group ${ }^{2}$ is obtained by taking the square root of the sum of the squares of the standard error of the numerator used in obtaining the rate divided by the numerator itself and the standard error of the denominator used divided by the denominator itself and multiplying by the rate. This computation will normally give an overestimate of the true sampling error. Example: During 2 years of sampling, the average number of dental visits per person per year for persons 65 years of age and over who have an annual in-
come of $\$ 4,000-6,999$ is 1.0 visits: The numerator used in obtaining the rate is $2,300,000$ visits (table 7), and the denominator was 2,412,000 persons (table 28). The standard error of the numerator is 516,000 visits (obtained from column (d) of Appendix table I), and the standard error of the denominator is 88,000 persons (obtained from column (b) of Appendix table I). Carrying out the computations for

$$
\sqrt{\left(\frac{516,000}{2,300,000}\right)^{2}+\left(\frac{88,000}{2,412,000}\right)^{2}} \times 1.0
$$

gives 0.2 as the approximate standard error for a rate of 1.0 visits.
5. Approximate standard errors for the difference between two rates are obtained by taking the square root of the sum of the squares of the standard error of each rate.

[^15]Table II. Standard errors of percentages based on dental visits (body of table expressed in percentage points)
a. 1957-1958

| Estimated percentage | Base of percentage (base is shown in thousands) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2,500 | 12,500 | 25,000 | 50,000 | 75,000 | 125,000 | 250,000 | 500,000 | 750,000 | 1,250,000 |
| 2 or 98--- | 3.6 | 1.6 | 1.1 | 0.8 | 0.7 | 0.5 | 0.4 | 0.3 | 0.2 | 0.2 |
| 5 or 95-0- | 5.6 | 2.5 | 1.8 | 1.3 | 1.0 | 0.8 | 0.6 | 0.4 | 0.3 | 0.3 |
| 10 or 90-- | 6.8 | 3.0 | 2.1 | 1.5 | 1.2 | 1.0 | 0.7 | 0.5 | 0.4 | 0.3 |
| 25 or 75-- | 9.8 | 4.4 | 3.1 | 2.2 | 1.8 | 1.4 | 1.0 | 0.7 | 0.6 | 0.4 |
| 50-------- | 12.9 | 5.8 | 4.1 | 2.9 | 2.4 | 1.8 | 1.3 | 0.9 | 0.7 | 0.6 |

b. Annual average - 1957-1959

| Estimated percentage | Base of percentage (base is shown in thousands) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2,500 | 12,500 | 25,000 | 50,000 | 75,000 | 125,000 | 250,000 | 500,000 | 750,000 | 1,250,000 |
| 2 or 98--- | 2.9 | 1.3 | 0.9 | 0.6 | 0.6 | 0.4 | 0.3 | 0.2 | 0.2 | 0.2 |
| 5 or 95--- | 4.5 | 2.0 | 1.4 | 1.0 | 0.8 | 0.6 | 0.5 | 0.3 | 0.2 | 0.2 |
| 10 or 90-- | 5.4 | 2.4 | 1.7 | 1.2 | 1.0 | 0.8 | 0.6 | 0.4 | 0.3 | 0.2 |
| 25 or 75-- | 7.8 | 3.5 | 2.5 | 1.8 | 1.4 | 1.1 | 0.8 | 0.6 | 0.5 | 0.3 |
| 50-------- | 10.3 | 4.6 | 3.3 | 2.3 | 1.9 | 1.4 | 1.0 | 0.7 | 0.6 | 0.5 |

Illustration of use of table 11 . -During 2 years of sampling, among persons $15-24$ years of age approximately 62.4 percent of the dental visits were made by females. The base of this percentage is $47,400,000$ visits (table 11 . Since neither of these values can be readdirectly from table ll-b it is necessary to interpolate, as follows: a statistic of 75 , percent with a base of $25,000,000$ has a standard error of 2.5 percentage points. A statistic of 50 percent has a standard error of 3.3 percentage points. Interpolating, a statistic of 62.4 percent with a base of $25,000,000$ has a standard error of 2.9. Corresponding calculations with a base of $50,000,000$ produce a standard error of 2.1 percentage points. A final interpolation between these results yields an estimate of 2.2 percertage points as the approximate standard error for a percentage of 62.4 with a base of $47,400,000$. IInterpolation has been carried out in two dimensions in this example. For most purposes, a simple scanning of table ll will reveal an approximate answer which is sufficiently precise.

## APPENDIX II

## DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT

## Dental Care Terms

Dental visits. - Each visit to a dentist's office for treatment or advice is considered to be a dental visit. The visit may involve services provided directly by the dentist or by a dental hygienist acting under a dentist's supervision. Services provided while a person was a patient in a hospital for overnight or longer are not considered to be dental visits.

Type of dental service, -A dental service is a service received when a dentist or dental hygienist is visited. For purposes of this survey, dental services have been categorized into a number of broad types. If a single dental visit involves more than onetype of dental service, each type of service is recorded. If a particular type of service is rendered more than once during a single visit, the type of service is nevertheless recorded only once. For example, if during a single dental visit, 1 tooth is extracted and 3 teeth are filled, the types of services rendered during that visit are recorded as "Extractions" and "Fillings," each category being recorded only once. The categories of types of dental services are defined as follows:

1. Fillings include temporary fillings, permanent fillings, inlays, crowns, and similar procedures.
2. Extractions include any dental surgery and related activity such as removal of stitches.
3. Cleaning or examination includes all forms of dental prophylaxis, "checkup," consultation, and $X$-rays.
4. Straightening includes orthodontic treatment and brace work and also fitting or repair of braces.
5. Gum treatment includes all peridontal work, except prophylaxis.
6. Denture work includes taking impressions for false teeth, plate fitting or repair, and bridge work.
7. Other includes all types of dental service not listed above.

## Demographic, Social, and Economic Terms

Age. - The age recorded for each person is the age at last birthday. Age is recorded in single years and grouped in a variety of distributions depending upon the purpose of the table.

Race. - ln this report, the population has been subdivided into two groups according to race, "White" and 'Nonwhite." "Nonwhite" includes Negro, American Indian, Chinese, Japanese, and so forth. Mexican persons are included with "White" unless definitely known to be lndian or other nonwhite race.

Family income. - Each member of a family is classified according to the total income of the family of which he is a member. Within the household all persons related to each other by blood, marriage, or adoption constitute a family. Unrelated individuals are classified according to their own income.

The income recorded is the total of all income received by members of the family (or by an unrelated
individual) in the 12 -month period ending with the week of interview. Income from all sources is included, e.g., wages, salaries, rents from property, penṣions, help from relatives, and so forth.

Education of family head. - Each member of a family is classified according to the education of the head of the family of which he is a member. Within the household all persons related to each other by blood, marriage, or adoption constitute a family. Unrelated individuals are classified according to their own education.

The categories of educational status show the highest grade of school completed. Only grades completed in regular schools, where persons are given a formal education, are included. A "regular" school is one which advances a person toward an elementary or high school diploma, or a college, university, or professional school degree. Thus, education in vocational, trade, or business schools outside the regular school system is not counted in determining the highest grade of school completed.

## Location of Residence Terms

Urban residence. - The definition of urban areas used in the U. S. National Health Survey is the same as that used in the 1950 Census. According to this definition, the urban population comprises all persons living in (a) places of 2,500 inhabitants or more incorporated as cities, boroughs, and villages; (b) incorporated towns of 2,500 inhabitants or more except in New England, New York, and Wisconsin, where "Towns" are simply minor civildivisions of counties; (c) the densely settled urban fringe, including both incorporated and unincorporated areas around cities of 50,000 or more; and (d) unincorporated places of 2,500 inhabitants or more outside any urban fringe.

In this report, the urban population has been subdivided into those living "Inside urbanized areas" and those living in "Other urban places."

Inside urbanized areas,-Following the definition used in the 1950 Census, the population in urbanized areas comprises all persons living in (a) cities of 50,000 inhabitants or more in 1940 or according to a special census taken between 1940 and 1950; and (b) the densely settled urban fringe, including both incorporated and unincorporated areas, surrounding these cities.
Other urban places. - The remaining urban population not classified as living "lnside urbanized areas" is classified as living in "Other urban places."
Rural residence. - The remaining population not classified as "Urban'" is classified as "Rural." In this report the rural population has been subdivided into "Rural farm" and "Rural nonfarm."

Rural farm.-All rural residents living on farms areclassified as "Rural farm。" ln deciding whether members of a household reside on a farm or ranch, the statement of the household respondent that the house is on a farm or ranch is accepted, with the
following exception. A house occupied by persons who pay cash rent for the house and yard only is not counted as a farm or ranch even though the surrounding area is farm land. This special case does not cover: (1) the living quarters of a tenant farmer who rents farm land as well as house and yard; (2) the quarters of a hired hand who receives living quarters on a farm as part of his compensation; or (3) separate living quarters inside a structure which is classified as on a farm. In all these cases the living quarters are counted as on a farm.
Rural nonfarm. - The remaining rural population not classified as "Rural farm" is classified as "Rural nonfarm."
Region. -For the purposes of classifying the population by geographic area of residence, the National Health Survey uses the same grouping of states used by the Bureau of the Census and many other agencies. The four major regions are:

## Region

States Included
Maine, New Hampshire, Ve:mont, Massachusetts, Rhode Island,

Northeast-Continued

|  | Connecticut, New York, <br> New Jersey, Pennsylvania |
| :--- | :--- |
| North Central | Michigan, Ohio, Indiana, Lllinois, <br> Wisconsin, Minnesota, lowa, <br> Missouri, North Dakota, <br> South Dakota, Nebraska, Kansas |
| South | Delaware, Maryland, District of <br> Columbia, Virginia, West Virginia, |
|  | North Carolina, South Carolina, <br> Georgia,'Florida, Kentucky, <br> Tennessee, Alabama, Mississippi, |
| West | Arkansas, Louisiana, Oklahoma, <br> Texas |
|  | Montana, ldaho, Wyoming, <br> Colorado, New Mexico, Arizona, |
|  | Utah, Nevada, Washington, <br> Oregon, California |
|  |  |

## APPENDIX III <br> QUESTIONNAIRE

The entire questionnaire used during the year July 1, 1957 through June 29, 1958 is reproduced in U. S. National Health Survey Report, Series A, Number 3, Concepts and Definitions in the Health Household-Interview Survey.

The exact wording of the questions relating to dental care contained in the questionnaires used during each of the two years is shown below. The actual questionnaires are designed for a household as a unit and include additional spaces for reports on more than one person.

Questions from the July 1957-June 1958 questionnaire

DENTAL CARE

|  If $78{ }^{\prime \prime}$ <br> (b) Bow may cimes darime the past 2 wetar? | ロres |
| :---: | :---: |
| 22. Ehat did roo beve dane? <br> If more than one viait: <br> that did yoo have dane on the $\left\{\begin{array}{l}\text { Iirat } \\ \text { eecomd } \\ \text { efc. }\end{array}\right\}$ vietep |  |
| If Tor to q. 21a, ask: <br> 2. Bow loag has it been elnce you ent to a daitinth |  |
| 24. Is there mane in the fanliy tho has loat all of his teothr | $\square \mathrm{res}$ |

Questions from the July 1958-June 1959 questionnaire

| 19. (a) Last woek ar the week before did anyona in the fomily go to o dontist? Anyone elef? If "Yes" <br> (b) How many fimes during the past 2 meoke? |  |
| :---: | :---: |
| 20. How many flmes alrogether in the past 12 monthe did you go to a dentisi? | $\square$ One $\square$ Three $\square$ Two $\quad \square$ Fown or more $\square$ None |

## SELECTED REPORTS FROM THE U.S. NATIONAL HEALTH SURVEY

Series A (Program descriptions, survey designs, concepts, and definitions)
No. 1. origin and Program of the U. S. National Health Survey. PHS Pub. No. 584-A1. Price 25 cents.
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statistics on volume of dental visits by type of dental service, age,
sex, residence, region, race, income, and education. Based on data.col-
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Washington, U.S. Dept. of Health, Education, and Welfare, Public Health
Service, Division of Public Health Methods, 1960.
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1. Title.
(Series. Series: U.S. Publication no. 584-815)
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[^0]:    This report was prepared by Jane $\quad$. Bergsten, of the U.S. National Health Survey staff.

[^1]:    ${ }^{1}$ The sum of the percentages may add to more than loo percent because one visit may involve more than one type of service.

[^2]:    ${ }^{1}$ The sum of the percentages may add to more than 100 percent because one visit may involve more than one type of service.

[^3]:    ${ }^{1}$ The sum of visits by type of service may be greater than the total because one visit may involve more than one type of service.

[^4]:    ${ }^{1}$ The sum of visits by type of service may be greater than the total because one visit may involve more than one type of service.

[^5]:    ${ }^{1}$ The sum of the percentages may add to more than 100 percent because one visit may involve more than one type of service.

[^6]:    ${ }^{1}$ The sum of visits by type of service may be greater than the total because one visit may involve more than one type of service.

[^7]:    ${ }^{1}$ The sum of the percentages may add to more than 100 percent because one visit may involve more than one type of service,

[^8]:    ${ }^{1}$ The sum of visits by type of service may be greater than the total because one visit may involve more than one type of service.

[^9]:    ${ }^{1}$ The sum of the percentages may add to more than 100 percent because one visit may involve more than one type of service.

[^10]:    ${ }^{1}$ The sum of visits by type of service may be greater than the total because one visit may involve more than one type of service.

[^11]:    The sum of visits by type of service may be greater than the total because one visit may involve more than one

[^12]:    ${ }^{1}$ The sum of the percentages may add to more than 100 percent because one visit may involve more than one type of service.

[^13]:    ${ }^{1}$ The sum of the percentages may add to more than 100 percent because one visit may involve more than one type of

[^14]:    lhe' number of persons in an age, sex, or color group, or the total number of persons in the population is not subject to sampling error.

[^15]:    2 Note that where the rate refers to persons in a residence, regional, income, or educational group, rule 4 applies, even if the group is further subdivided by age, sex, or color.

