Vital and Health Statistics

Advance Data From Vital and Health Statistics: Numbers 41–50

Series 16: Compilations of Advance Data From Vital and Health Statistics No. 5

Data in this report from health and demographic surveys present statistics by age and other variables on ambulatory medical care; the use of intrauterine contraceptive devices; health care coverage; the use of family planning services by currently married women; hemoglobin and selected iron-related findings; and prevalence, disability, and health care for Psoriasis. Estimates are based on the civilian noninstitutionalized population of the United States. These reports were originally published in 1978 and 1979.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
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National Center for Health Statistics

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advancedata
FROM VITAL & HEALTH STATISTICS OF THE NATIONAL CENTER FOR HEALTH STATISTICS
U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE • Public Health Service | Number 41 • October 30, 1978

Office Visits for Respiratory Conditions, National Ambulatory Medical Care Survey: United States, 1975-76[1]

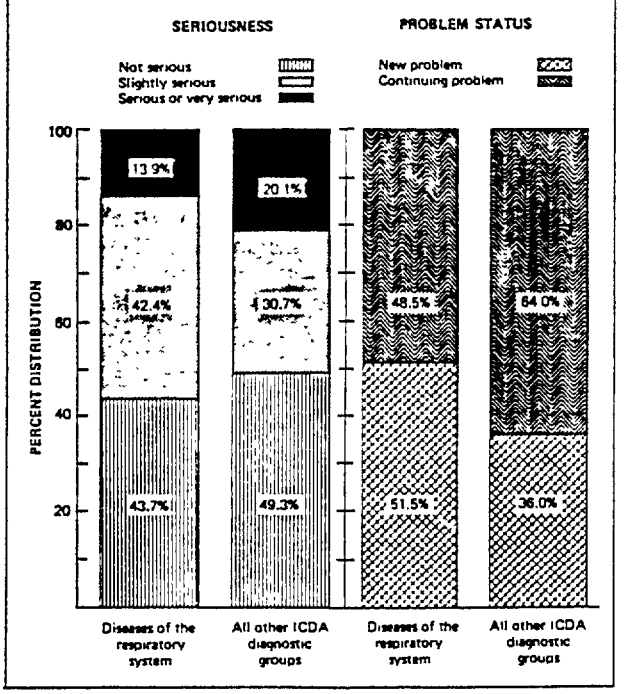
According to data collected in the National Ambulatory Medical Care Survey (NAMCS) by the National Center for Health Statistics (NCHS), an estimated 163.4 million visits to office-based physicians were attributed to diseases of the respiratory system during the 2-year period January 1975 through December 1976. Respiratory diseases comprised approximately 14 percent of all office visits for that period and were the leading morbidity related ICDA[2] classified group of diseases treated.

NAMCS is a sample suvrey conducted annually by NCHS's Division of Health Resources Utilization Statistics. The estimates in this report are based on information recorded by participating physicians on brief encounter forms (see Technical Notes) during sampled office visits. A brief description of the sample design and an explanation of the sampling errors associated with selected aggregate statistics may be found in the Technical Notes of this report.

Patients visiting with respiratory system complaints were likely to present new rather than continuing problems. This finding departs significantly from the general trend towards higher proportions of continuing problems in most morbidity related diagnostic groups. Figure 1 illustrates the difference in problem status between visits for respiratory diseases and the total of all other ICDA diagnostic groups.

Seriousness of the patient's problem was evaluated by the physician using the criterion of the extent of impairment that might result if no care were available. On a 4-point scale ranging from not serious to very serious, attending physicians usually judged respiratory conditions as not serious or slightly serious. A small proportion (14 percent) of these conditions was

Figure 1. PERCENT DISTRIBUTION OF OFFICE VISITS FOR DISEASES OF THE RESPIRATORY SYSTEM AND ALL OTHER MAJOR ICDA DIAGNOSTIC GROUPS, BY SERIOUSNESS AND PROBLEM STATUS: UNITED STATES, 1975-76



[1]This report was prepared by Beulah K. Cypress, Ph.D., Division of Health Resources Utilization Statistics.

[2]National Center for Health Statistics: *Eighth Revision International Classification of Diseases, Adapted for Use in the United States.* PHS Pub. No. 1693, Public Health Service. Washington. U.S. Government Printing Office, 1967.

considered serious or very serious, which was less than the proportion (20 percent) of serious or very serious problems in the total of all other diagnostic groups (figure 1).

Acute upper respiratory infections (acute URI), which are usually short duration, self-limiting conditions, accounted for almost half of the visits in the respiratory diseases group (table 1). This may be one explanation for the relatively small proportion of office visits for serious problems. The high proportion of acute URI would also account for the relatively large numbers of new problems that were presented.

Table 1. Number and percent distribution of office visits for acute and chronic diseases of the respiratory system: United States, 1975-76

Diagnosis and ICDA code[1]	Number of visits in thousands	Percent distribution
All visits.....460-519	163,401	100.0
Acute upper respiratory infections.....460-466	78,585	48.1
Acute nasopharyngitis and acute upper respiratory infections of multiple or unspecified sites.....460,465	37,693	23.1
Acute sinusitis.....461	2,598	1.6
Acute pharyngitis.....462	17,414	10.7
Acute tonsillitis.....463	12,573	7.7
Acute laryngitis and tracheitis.....464	2,982	1.8
Acute bronchitis and bronchiolitis.....466	5,326	3.3
Influenza.....470-474	10,312	6.3
Pneumonia.....480-486	5,194	3.2
Chronic diseases of the respiratory system.....490-493, 502-503,507	59,722	36.5
Bronchitis, unqualified, and chronic bronchitis.....490-491	15,765	9.6
Emphysema.....492	5,223	3.2
Asthma.....493	10,951	6.7
Chronic pharyngitis and nasopharyngitis.....502	2,486	1.5
Chronic sinusitis.....503	8,284	5.1
Hay fever.....507	17,012	10.4
Other acute and chronic diseases of the respiratory system.....500,501, 504-506,508,510-519	9,548	5.8

[1]Based on the *Eighth Revision International Classification of Diseases, Adapted for Use in the United States* (ICDA).

Influenza and pneumonia together accounted for approximately 10 percent of visits for respiratory diseases. Six chronic diseases of the respiratory system comprised an additional 37 percent (table 1). Emphysema, asthma, and pneumonia were chiefly responsible for the visits classified as serious or very serious. A future report currently in preparation will provide additional indepth analysis of visits for specific respiratory diseases, and will be published in Series 13 of *Vital and Health Statistics*.

Table 2 displays age and sex distributions of visits for selected diseases. Like most NAMCS visits, proportions of females visiting for most respiratory illnesses exceeded those of males. However, male visits clearly exceeded female visits when the illness was diagnosed as emphysema.

Patients under 25 years of age were responsible for most of the visits for acute URI and for pneumonia. But patients over 25 years of age predominated the visits when the other respiratory diseases shown in table 2 were diagnosed. However, patients under 15 years of age represented about one-third of the visits for bronchitis and for asthma and about 29 percent of the visits for hay fever. Patients 65 years of age or older were responsible for the smallest proportions of visits for all respiratory conditions except emphysema. Patients 45 years of age and over were responsible for almost all visits for emphysema.

Figure 2 highlights the high rate of office visits for acute URI by patients under 15 years of age. For every 1,000 members of that age group in the population, there were 343 visits to a physician for acute URI. This number declined by half or more for patients up to 64 years of age and by about two-thirds for patients aged 65 years or older. Figure 3 shows the average annual rate of office visits for influenza and for pneumonia. Figures 4 and 5 illustrate three chronic conditions—bronchitis, asthma, and hay fever.

When physician specialty data were examined, it was observed that general and family practitioners had the highest proportions of visits for acute URI, influenza, pneumonia, bronchitis, and emphysema (table 3). This observation is not a surprising result since general and family practice constitutes the highest proportion of office-based physicians in the

Table 2. Percent distribution of office visits for selected diseases of the respiratory system by age and sex of patient: United States, 1975-76

Diagnosis and ICDA code[1]	Percent of visits	Age					Sex	
		Under 15 years	15-24 years	25-44 years	45-64 years	65 years and over	Female	Male
	Percent distribution							
Acute upper respiratory infections..... 460-466	100.0	46.0	14.4	18.9	15.0	5.8	54.2	45.8
Influenza..... 470-474	100.0	18.1	14.3	31.7	25.9	10.0	47.0	53.0
Pneumonia..... 480-486	100.0	37.7	12.4	17.1	20.3	12.5	50.8	49.2
Bronchitis, unqualified, and chronic bronchitis..... 490-491	100.0	32.9	9.0	20.3	25.2	12.6	57.9	42.1
Emphysema..... 492	100.0	*1.1	*0.1	*4.8	44.9	49.0	29.6	70.4
Asthma..... 493	100.0	32.9	10.9	18.1	28.1	10.1	54.9	45.1
Chronic pharyngitis, naspoharyngitis, and sinusitis..... 502-503	100.0	13.8	14.4	34.6	25.4	11.8	58.7	41.3
Hay fever..... 507	100.0	29.2	16.6	30.9	17.7	5.6	56.3	43.7

[1] Based on the *Eighth Revision International Classification of Diseases, Adapted for Use in the United States* (ICDA).

United States.[3] Internists treated a higher proportion of patients visiting for emphysema than they did those for other respiratory diseases and were responsible for the second highest proportion of visits for that problem. Since about two-thirds of office visits to internists were by patients 45 years of age and over,[4]

[3] Goodman, L. J. and Mason, H. R. *Physician Distributions and Medical Licensure in the U.S., 1975.* Center for Health Services Research and Development. American Medical Association. Chicago, 1976.

[4] National Center for Health Statistics: Office Visits to Internists: National Ambulatory Medical Care Survey: United States, 1975, by Beulah K. Cypress. *Advance Data from Vital and Health Statistics,* No. 16. DHEW Pub. No. (PHS) 78-1250. Public Health Service, Hyattsville, Md., Feb. 7, 1978.

Figure 2. AVERAGE ANNUAL RATE OF OFFICE VISITS FOR ACUTE UPPER RESPIRATORY INFECTIONS (460-466), BY AGE OF PATIENT: UNITED STATES, 1975-76

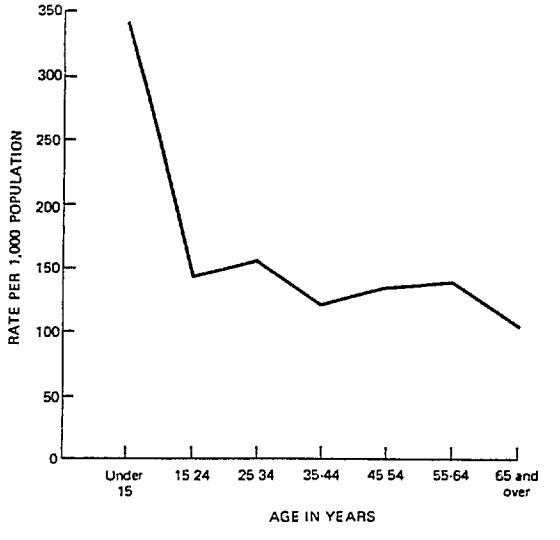


Figure 3. AVERAGE ANNUAL RATE OF OFFICE VISITS FOR INFLUENZA (470-474) AND PNEUMONIA (480-486), BY AGE OF PATIENT: UNITED STATES, 1975-76

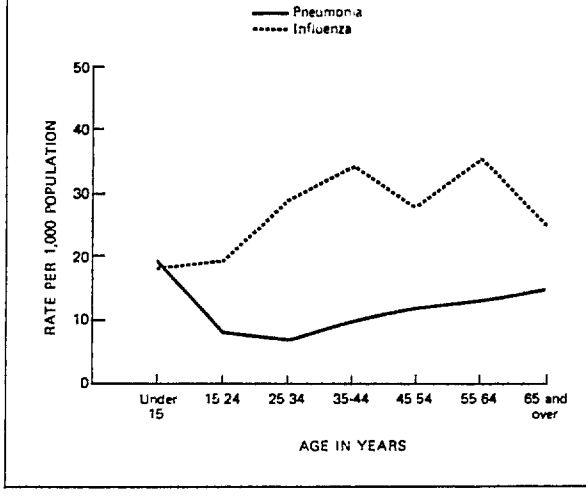
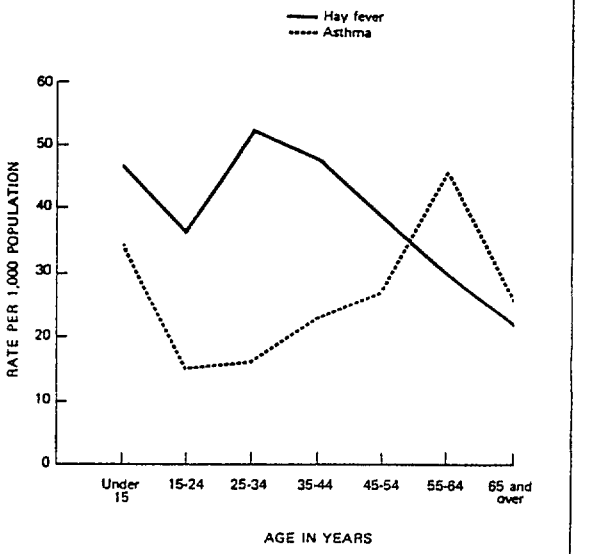


Figure 4. AVERAGE ANNUAL RATE OF OFFICE VISITS FOR BRONCHITIS, UNQUALIFIED, AND CHRONIC BRONCHITIS (490-491), BY AGE OF PATIENT: UNITED STATES, 1975-76

Figure 5. AVERAGE ANNUAL RATE OF OFFICE VISITS FOR HAY FEVER AND ASTHMA, BY AGE OF PATIENT: UNITED STATES, 1975-76



it is predictable that internists would see more respiratory problems related to the elderly, such as emphysema, than they would see acute URI, for example, where the visit rate was highest for the youngest age group.

Allergists had the highest proportions of asthma and hay fever visits.

Pediatricians treated about 22 percent of all patients visiting for asthma and 18 percent of those visiting for hay fever. This accounted for 58 percent of the visits made by patients under 15 years of age for asthma and 49 percent for

Table 3. Percent distribution of office visits for selected diseases of the respiratory system, by physician specialty: United States, 1975-76

Physician specialty	Diagnosis and ICDA code[1]						
	Acute upper respiratory infections (460-466)	Influenza (470-474)	Pneumonia (480-486)	Bronchitis, unqualified, and chronic bronchitis (490-491)	Emphysema (492)	Asthma (493)	Hay fever (507)
	Percent distribution						
All specialties	100.0	100.0	100.0	100.0	100.0	100.0	100.0
General and family practice	57.5	78.5	50.5	56.9	52.4	29.5	26.3
Internal medicine	7.8	7.3	14.9	12.5	30.3	10.6	9.9
Pediatrics	23.9	8.8	27.0	20.6	*0.6	21.9	17.8
General surgery	2.9	*1.9	*3.3	*2.9	*1.3	*0.7	*0.8
Obstetrics and gynecology	1.1	*1.0	*0.3	*0.5	-	*0.6	*0.3
Otolaryngology	3.1	*0.3	-	*0.4	-	*0.7	9.6
Allergy	*0.4	-	-	*0.8	*3.1	32.3	30.6
All other specialties (residual)	3.3	2.2	4.0	5.4	12.3	3.7	4.7

[1] Based on the *Eighth Revision International Classification of Diseases, Adapted for Use in the United States* (ICDA).

the same age group visiting for hay fever.

Higher than average proportions of visits for respiratory conditions included drug therapy (70 percent) and injections (27 percent). However, the blood pressure measurement rate of 24 percent was less than average.

The average duration of visits ranged from 11 minutes for acute URI to 17 minutes for emphysema. This time period hovered closely around the 15-minute average duration of all estimated visits.

SYMBOLS

Data not available	---
Category not applicable	...
Quantity zero	-
Quantity more than 0 but less than 0.05	0.0
Figure does not meet standards of reliability or precision	*

TECHNICAL NOTES

SOURCE OF DATA: The information presented in this report is based on data collected in the National Ambulatory Medical Care Survey (NAMCS) during 1975 and 1976. The target population of NAMCS encompasses office visits within the conterminous United States made by ambulatory patients to physicians who are principally engaged in office practice. The National Opinion Research Center, under contract to NCHS, was the organization resposible for the survey's field operation.

SAMPLE DESIGN: NAMCS utilized a multistage probability design that involves samples of primary sampling units (PSU's), physician practices within PSU's, and patient visits within practices. Each year a sample of practicing physicians is selected from master files maintained by the American Medical Association and the American Osteopathic Association. The 1975-76 sample included 5,604 physicians with a response rate of 80 percent for the 2 years. These physicians were requested to complete Patient Records[5] for a systematic random sample of office visits taking place within their

[5]See figure I.

Figure I. PATIENT RECORD

ASSURANCE OF CONFIDENTIALITY—All information which would permit identification of an individual, a practice, or an establishment will be held confidential, will be used only by persons engaged in and for the purposes of the survey and will not be disclosed or released to other persons or used for any other purpose.

BN?

PATIENT RECORD
NATIONAL AMBULATORY MEDICAL CARE SURVEY

1. DATE OF VISIT — Mo / Day / Yr

2. DATE OF BIRTH — Mo / Day / Yr

3. SEX
1 ☐ FEMALE
2 ☐ MALE

4. COLOR OR RACE
1 ☐ WHITE
2 ☐ NEGRO/BLACK
3 ☐ OTHER
4 ☐ UNKNOWN

5. PATIENT'S PRINCIPAL PROBLEM(S) COMPLAINT(S), OR SYMPTOM(S) THIS VISIT (In patient's own words)
a MOST IMPORTANT_____
b OTHER_____

6. SERIOUSNESS OF PROBLEM IN ITEM 5a (Check one)
1 ☐ VERY SERIOUS
2 ☐ SERIOUS
3 ☐ SLIGHTLY SERIOUS
4 ☐ NOT SERIOUS

7. HAVE YOU EVER SEEN THIS PATIENT BEFORE?
1 ☐ YES 2 ☐ NO
If YES, for the problem indicated in ITEM 5a?
1 ☐ YES 2 ☐ NO

8. MAJOR REASON(S) FOR THIS VISIT (Check all major reasons)
01 ☐ ACUTE PROBLEM
02 ☐ ACUTE PROBLEM, FOLLOW-UP
03 ☐ CHRONIC PROBLEM, ROUTINE
04 ☐ CHRONIC PROBLEM, FLARE-UP
05 ☐ PRENATAL CARE
06 ☐ POSTNATAL CARE
07 ☐ POSTOPERATIVE CARE → (Operative procedure)
08 ☐ WELL ADULT CHILD EXAM
09 ☐ FAMILY PLANNING
10 ☐ COUNSELING/ADVICE
11 ☐ IMMUNIZATION
12 ☐ REFERRED BY OTHER PHYS/AGENCY
13 ☐ ADMINISTRATIVE PURPOSE
14 ☐ OTHER (Specify)

9. PHYSICIAN'S PRINCIPAL DIAGNOSIS THIS VISIT
a. DIAGNOSIS ASSOCIATED WITH ITEM 5a ENTRY
b OTHER SIGNIFICANT CURRENT DIAGNOSES (In order of importance)

10. DIAGNOSTIC/THERAPEUTIC SERVICES ORDERED/PROVIDED THIS VISIT (Check all that apply)
01 ☐ NONE
02 ☐ LIMITED HISTORY/EXAM
03 ☐ GENERAL HISTORY/EXAM
04 ☐ CLINICAL LAB. TEST
05 ☐ BLOOD PRESSURE CHECK
06 ☐ EKG
07 ☐ HEARING TEST
08 ☐ VISION TEST
09 ☐ ENDOSCOPY
10 ☐ OFFICE SURGERY
11 ☐ DRUG PRESCRIBED
12 ☐ X-RAY
13 ☐ INJECTION
14 ☐ IMMUNIZATION/DESENSITIZATION
15 ☐ PHYSIOTHERAPY
16 ☐ MEDICAL COUNSELING
17 ☐ PSYCHOTHERAPY/THERAPEUTIC LISTENING
18 ☐ OTHER (Specify) _____

11. DISPOSITION THIS VISIT (Check all that apply)
1 ☐ NO FOLLOW-UP PLANNED
2 ☐ RETURN AT SPECIFIED TIME
3 ☐ RETURN IF NEEDED, P R N
4 ☐ TELEPHONE FOLLOW-UP PLANNED
5 ☐ REFERRED TO OTHER PHYSICIAN/AGENCY
6 ☐ RETURNED TO REFERRING PHYSICIAN
7 ☐ ADMIT TO HOSPITAL
8 ☐ OTHER (Specify)_____

12. DURATION OF THIS VISIT (Time actually spent with physician)
_____MINUTES

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DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
PUBLIC HEALTH SERVICE
HEALTH RESOURCES ADMINISTRATION
NATIONAL CENTER FOR HEALTH STATISTICS

O.M.B. #68-S72106
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practices during a randomly assigned weekly reporting period. Participating physicians completed 114,000 Patient Records during the 2-year period. Characteristics of the physician's practice, such as primary specialty and type of practice, are obtained during an induction interview. A detailed description of the NAMCS design and procedures can be found in Series 13, Number 33 of *Vital and Health Statistics*.

SAMPLING ERRORS: Since the estimates for this report are based on a sample rather than the entire universe, they are subject to sampling variability. The relative standard error of an estimate is primarily a measure of sampling variability. The relative standard error of the estimate is obtained by dividing the standard error of the estimate by the estimate itself and is expressed as a percent of the estimate. Relative standard errors of selected aggregate statistics are shown in table I. The standard errors appropriate for the estimated percentages of office visits are shown in table II.

ROUNDING: Aggregate estimates of office visits presented in the tables are rounded to the nearest thousand. The rates and percents, however, were calculated on the basis of original, unrounded figures. Due to rounding of percents, the sum of percentages may not equal 100.0 percent.

Table I. Approximate relative standard error of estimated numbers of office visits, NAMCS 1975-76

Estimate in thousands	Relative standard error in percentage points
600	30.2
1,000	23.5
2,000	16.7
4,000	12.0
10,000	8.0
40,000	4.8
200,000	3.4
1,000,000	3.1

Example of use of table: An aggregate estimate of 25,000,000 visits has a relative standard error of 6.4 percent or a standard error of 1,600,000 visits (6.4 percent of 25,000,000).

DEFINITIONS: An *ambulatory patient* is an individual presenting himself for personal health services who is neither bedridden nor currently admitted to any health care institution on the premises.

An *office* is a place that the physician identifies as a location for his ambulatory patients. Responsibility over time for patient care and professional services rendered there generally resides with the individual physician rather than an institution.

A *visit* is a direct personal exchange between an ambulatory patient and a physician or a staff member working under the physician's supervision for the purpose of seeking care and rendering health services.

A *physician* is a duly licensed doctor of medicine (M.D.) or doctor of osteopathy (D.O.) currently in practice who spends time in caring for ambulatory patients at an office location. Excluded from NAMCS are physicians who specialize in anesthesiology, pathology, radiology; physicians who are federally employed; physicians who treat only institutionalized patients; physicians employed full time by an institution; and physicians who spend no time seeing ambulatory patients.

Table II. Approximate standard errors of percentages for estimated numbers of office visits, NAMCS 1975-76

Base of percentage (number of visits in thousands)	Estimated percentage					
	1 or 99	5 or 95	10 or 90	20 or 80	30 or 70	50
	Standard error in percentage points					
600	3.0	6.5	9.0	12.0	13.8	15.0
1,000	2.3	5.1	7.0	9.3	10.7	11.6
2,000	1.6	3.6	4.9	6.6	7.5	8.2
4,000	1.2	2.5	3.5	4.7	5.3	5.8
10,000	0.7	1.6	2.2	2.9	3.4	3.7
40,000	0.4	0.8	1.1	1.5	1.7	1.8
200,000	0.2	0.4	0.5	0.7	0.8	0.8
1,000,000	0.1	0.2	0.2	0.3	0.3	0.4

Example of use of table: An estimate of 20 percent based on an aggregate estimate of 80,000,000 visits has a standard error of 1.3 percent. The relative standard error of 20 percent is 6.5 (1.3 percent ÷ 20 percent).

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FROM VITAL & HEALTH STATISTICS OF THE NATIONAL CENTER FOR HEALTH STATISTICS
U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE ▪ Public Health Service | Number 42 ▪ October 31, 1978

Office Visits to Cardiovascular Specialists, National Ambulatory Medical Care Survey: United States, 1975-76[1]

Using data from the National Ambulatory Medical Care Survey (NAMCS), this report describes an estimated 13,517,000 visits made to the offices of cardiovascular specialists over the 2-year span from January 1975 through December 1976. NAMCS is a sample survey designed to explore the provision and utilization of ambulatory care in the physician's office, the setting where most Americans seek health care. The survey is conducted annually throughout the coterminous United States by the Division of Health Resources Utilization Statistics of the National Center for Health Statistics. The survey sample is selected from doctors of medicine and osteopathy who are principally engaged in office-based patient-care practice. Excluded from the sample are an indeterminate number of physicians who render some office-based ambulatory care but whose patient-care activities are secondary to another primary role such as teaching, research, or administration. Also excluded from the NAMCS scope are physicians who are hospital-based; those whose specialty is anesthesiology, pathology, or radiology; and physicians in the Federal Service.

Because the estimates presented in this report are based on a sample rather than on the entire universe of office-based, patient-care physicians, they are subject to sampling variability. See the Technical Notes for an explanation and for guidelines in judging the relative precision of estimates presented in this report. The directions offered there also provide the basis for judging the statistical significance of differences between estimates.

DATA HIGHLIGHTS

With their estimated 13,517,000 office visits in the 2-year span 1975-76, cardiovascular specialists were among the 13 specialists who figured most prominently in the provision of office-based ambulatory care (see table 1).

Visit distributions in table 2 show an emphatic preference for the metropolitan practice locations, and indicate a slight preference for solo practice over multiple-member practice arrangements. In this choice of location and type of practice, visits to cardiovascular special-

Table 1. Number of visits to office-based specialists, by type of specialty: United States, 1975-76

Specialty	Number of visits in thousands
General and family practice	460,297
Internal medicine	130,367
Pediatrics	107,085
Obstetrics and gynecology	97,070
General surgery	77,259
Ophthalmology	53,959
Orthopedic surgery	47,152
Dermatology	35,721
Psychiatry	30,616
Otolaryngology	27,192
Urology	20,728
Cardiovascular disease	13,517
Neurology	3,784

[1]This report was prepared by Hugo Koch, Division of Health Resources Utilization Statistics.

Table 2. Number and percent distribution of office visits to cardiovascular specialists, and percent distribution of office visits to all specialists, by characteristics of the physician: United States, 1975-76

Physician characteristic	Number of visits to cardiovascular specialists in thousands	Visits to—	
		Cardiovascular specialists	All specialists[1]
		Percent distribution	
All visits	13,517	100.0	100.0
Location of practice			
Metropolitan area[2]	12,690	93.9	73.3
Nonmetropolitan area	827	6.1	26.7
Type of practice			
Solo	7,064	52.3	60.0
Other	6,453	47.7	40.0

[1]Based on an estimated 1,155,900,000 visits made to all office-based physicians in 1975 and 1976.
[2]Location within a standard metropolitan statistical area (SMSA). Composition of SMSA's does not reflect 1974 adjustments.

Table 3. Number and percent distribution of office visits to cardiovascular specialists, and percent distribution of office visits to all specialists, by characteristics of the patient: United States, 1975-76

Patient characteristic	Number of visits to cardiovascular specialists in thousands	Visits to—	
		Cardiovascular specialists	All specialists[1]
		Percent distribution	
All visits	13,517	100.0	100.0
Age			
Under 25 years	550	4.1	33.2
25-44 years	1,783	13.2	25.5
45-64 years	5,730	42.4	25.1
65 years and over	5,453	40.3	16.2
Sex			
Female	6,766	50.1	60.4
Male	6,751	49.9	39.6
Prior visit status			
New patient	1,547	11.5	14.6
Old patient, new problem	1,903	14.1	23.2
Old patient, old problem	10,067	74.5	62.3

[1]Based on an estimated 1,155,900,000 visits made to all office-based physicians in 1975 and 1976.

ists agree with the average findings for all visits to office-based practitioners.

It is evident from the visit-age distributions in table 3 that cardiovascular problems become increasingly manifest with advancing age. Four of every 5 visits were made by patients 45 years old and over. The median visit-age (calculated from visit distributions rather than the individual patients who made the visits) was 59 years, exceeding by 22 years the median visit age of 37 years characteristic of overall office-based practice.

Visits to cardiovascular specialists were about equally divided between male and female patients, making cardiovascular disease one of the few office-based specialties where visits by males equalled or exceeded visits by females. The other notable exceptions were pediatrics, urology, and orthopedic surgery.

Underscoring the chronic nature of much cardiovascular disease is the finding that three-fourths of the visits to cardiovascular specialists were made by persons who were already established patients of the doctor and who were returning with old problems (table 3, *prior visit status*). For the 3,450,000 visits at which a *new problem* was presented (i.e., the 1,547,000 visits by new patients plus the 1,903,000 visits by old patients with new problems), there were 10,067,000 return visits, an average of 2.9 return visits per new problem per year. This return visit rate substantially exceeded the average of 1.6 return visits per year common in overall office-based practice; indeed, among the most visited specialists, it was exceeded only by the rate for office-based psychiatrists.

Table 4 shows the clinical content of cardiovascular office practice. The chronic circulatory ailments clearly dominate. Two of them, chronic ischemic heart disease and essential benign

Table 4. Percent distribution of office visits to cardiovascular specialists by principal (first-listed) diagnoses rendered by the physician classified by ICDA category: United States, 1975-76

Principal diagnosis and ICDA code[1]	Percent distribution
All principal diagnoses	[2]100.0
Diseases of the circulatory system 390-458	51.1
Other diagnoses	48.9
Diseases of the respiratory system 460-519	7.5
Special conditions and examinations without sickness Y00-Y13	5.8
Symptoms and ill-defined conditions 780-796	5.7
Diseases of the musculosketal system 710-738	5.0
Endocrine, nutritional, and metabolic diseases 240-279	5.0
Diseases of the digestive system 520-577	4.5
Other conditions	15.4
Diseases of the circulatory system 390-458	100.0
Chronic ischemic heart disease 412	37.0
Essential benign hypertension 401	21.2
Symptomatic heart disease 427	12.9
Other ischemic heart diseases 410,411,413	7.8
Chronic rheumatic heart disease 393-398	7.0
Other diseases of the circulatory system Residual	14.1

[1]Based on *Eighth Revision International Classification of Disease, Adapted for Use in the United States* (ICDA).
[2]Based on 13,517,000 principal diagnoses.

hypertension, account for about 58 percent of the 6.9 million visits where cardiovascular morbidity was the principal (first listed) diagnosis. The vital screening function performed by the cardiovascular specialist is apparent in the substantial number of visits that resulted in the identification of a disorder other than a circulatory disease; e.g., the 1,000,000 visits diagnosed as respiratory disease and the 1,270,000 diagnoses which were about equally divided between diseases of the digestive system and endocrine, nutritional, and metabolic diseases.

Table 5 points up the unique intensity of diagnostic activity that is required in cardiovascular office practice: on the one hand, to screen cardiovascular symptoms (for example, chest pain), from similar symptoms that arise from other disorders; on the other hand, to monitor the usually prolonged course of a circulatory disease once the diagnosis is clearly established.

Table 5. Number and percent of office visits to cardiovascular specialists, and percent of office visits to all specialists, by selected diagnositic and therapeutic services provided: United States, 1975-76

Diagnostic and therapeutic services	Number of visits to cardiovascular specialists in thousands	Visits to—	
		Cardiovascular specialists	All specialists[1]
Diagnostic service		Percent	
Limited history and/or examination	7,827	57.9	51.6
General history and/or examination	2,838	21.0	16.3
Clinical laboratory test	3,614	26.7	22.8
X-ray	2,241	16.6	7.6
Blood pressure check	9,679	71.6	33.2
EKG	5,189	38.4	3.3
Therapeutic service			
Drug prescribed	5,725	42.4	43.6
Injection	899	6.7	13.1
Counseling	2,095	15.5	13.0

[1]Based on an estimated 1,155,900,000 visits made to all office-based physicians in 1975 and 1976.

Data on the seriousness of problems presented to the cardiovascular specialist predictably place a substantial proportion of problems (35 percent) in the serious-to-very-serious category, almost twice the proportion assigned this degree of severity in overall office-based practice (table 6).

Directly reflecting the chronic nature as well as the actual or potential severity of most of the problems presented to them, cardiovascular specialists ended 3 of every 4 visits by scheduling a return visit at a specified time (table 6, *disposition*). On the other hand, there is also evidence of a patient mobility which is greater than average. Due in large part to the intensive diagnostic screening discussed above, about 8 percent of visits to the cardiovascular specialist ended either in return to a referring physician or in referral to another physician or agency.

Data on duration of visit (table 6) indicate that the average face-to-face encounter between patient and cardiovascular specialist probably lasted about 22 minutes, substantially exceeding the 15-minute average calculated in overall office-based practice.

Table 6. Number and percent distribution of office visits to cardiovascular specialists, and percent distribution of office visits to all specialists, by selected visit characteristics: United States, 1975-76

Visit characteristic	Number of visits to cardiovascular specialists in thousands	Visits to—	
		Cardiovascular specialists	All specialists[1]
		Percent distribution	
All visits	13,517	100.0	100.0
Seriousness of problem			
Serious and very serious	4,763	35.2	19.2
Slightly serious	5,187	38.4	32.3
Not serious	3,567	26.4	48.5
Disposition (selected actions)			
No followup	650	4.8	12.3
Return at specified time	10,253	75.9	60.2
Return if needed	2,084	15.4	21.9
Telephone followup	580	4.3	3.5
Referred to other physician/agency	478	3.5	2.8
Returned to referring physician	615	4.6	0.9
Admit to hospital	*267	*2.0	2.1
Duration of physician-patient encounter			
0 minutes (no face-to-face encounter with physician	*204	*1.5	1.8
1-5 minutes	*290	*2.2	15.1
6-10 minutes	2,467	18.3	31.5
11-15 minutes	3,879	28.7	26.6
16-30 minutes	4,735	35.0	19.5
31 minutes or more	1,942	14.4	5.5

[1] Based on an estimated 1,155,900,000 visits made to all office-based physicians in 1975 and 1976.

TECHNICAL NOTES

SOURCE OF DATA: The information presented in this report is based on data collected in the National Ambulatory Medical Care Survey (NAMCS) during 1975 and 1976. The target universe of NAMCS is comprised of office visits made within the coterminous United States by ambulatory patients to non-Federal physicians who are principally engaged in office practice and are not in the specialties of anesthesiology, pathology, or radiology. The National Opinion Research Center, under contract to the National Center for Health Statistics, was the organization responsible for the survey's field operation.

SAMPLE DESIGN: NAMCS utilizes a multistage probability design that involves samples of primary sampling units (PSU's), physician practices within PSU's, and patient visits within practices. Each year a sample of practicing physicians is selected from master files maintained by the American Medical Association and the American Osteopathic Association. (For the 2 year period 1975-76, a total of 152 cardiovascular specialists were included in the sample. They achieved a response rate of 73 percent.) Characteristics of the physician's practice, for example, primary specialty and type of practice, are obtained during an induction interview. The physicians are requested to complete Patient Records[2] (brief encounter forms) for a systematic random sample of office visits during a randomly assigned weekly reporting period. (In the 2-year period 1975-76, sampled cardiovascular specialists completed a total of 1,730 Patient Records.) A detailed description of the NAMCS design and procedures has been presented in the publication "The National Ambulatory Medical Care Survey: 1975 Summary."[3]

SAMPLING ERRORS: Because the estimates for this report are based on a sample rather than on the entire universe, they are subject to sampling variability. The standard error is primarily a measure of sampling variability. The relative standard error of an estimate is obtained by dividing the standard error of the estimate by estimate itself and is expressed as a percent of the estimate. Relative standard errors of selected aggregate statistics are shown in table I. The standard errors appropriate for estimated percentages of visits are shown in table II.

Table I. Approximate relative standard errors of estimated number of office visits. United States, 1975-76

Estimated number of office visits in thousands	Relative standard error in percent
600	30.2
1,000	23.5
2,000	16.7
4,000	12.0
10,000	8.0
40,000	4.8
200,000	3.4
1,000,000	3.1

Example of use of table: An aggregate estimate of 25,000,000 visits has a relative standard error of 6.4 percent or a standard error of 1,600,000 visits (6.4 percent of 25,000,000).

Table II. Approximate standard errors of percentages of estimated number of office visits: United States, 1975-76

Base of percent (number of visits in thousands)	Estimated percent					
	1 or 99	5 or 95	10 or 90	20 or 80	30 or 70	50
	Standard error in percentage points					
600	3.0	6.5	9.0	12.0	13.8	15.0
1,000	2.3	5.1	7.0	9.3	10.7	11.6
2,000	1.6	3.6	4.9	6.6	7.5	8.2
4,000	1.2	2.5	3.5	4.7	5.3	5.8
10,000	0.7	1.6	2.2	2.9	3.4	3.7
40,000	0.4	0.8	1.1	1.5	1.7	1.8
200,000	0.2	0.4	0.5	0.7	0.8	0.8
1,000,000	0.1	0.2	0.2	0.3	0.3	0.4

Example of use of table: An estimate of 20 percent based on an aggregate estimate of 80,000,000 visits has a standard error of 1.3 percent. The relative standard error of 20 percent is 6.5 percent (1.3 percent ÷ 20 percent).

[2] A facsimile of the Patient Record appears as figure I.

[3] National Center for Health Statistics: The National Ambulatory Medical Care Survey, 1975 Summary, United States, January-December 1975. *Vital and Health Statistics*. Series 13-No. 33. DHEW Pub. No. (PHS) 78-1784. Washington. U.S. Government Printing Office, Dec. 1977.

DEFINITIONS: An *ambulatory patient* is an individual presenting himself for personal health services who is neither bedridden nor currently admitted to any health care institution.

An *office* is a place that the physician identifies as a location for his ambulatory practice. Responsibility over time for patient care and professional services rendered there generally resides with the individual physician, rather than an institution.

A *visit* is a direct personal exchange between an ambulatory patient and a physician or a staff member working under the physician's supervision for the purpose of seeking care and rendering health services.

A *physician* is a duly licensed doctor of medicine (M.D.) or doctor of osteopathy (D.O.) currently in office-based practice who spends time in caring for ambulatory patients. Excluded from NAMCS are physicians who are hospital based; physicians who specialize in anesthesiology, pathology, or radiology; physicians who are federally employed; physicians who treat only institutionalized patients; physicians employed full time by an institution; and physicians who spend no time seeing ambulatory patients.

Figure PATIENT RECORD

ASSURANCE OF CONFIDENTIALITY—All information which would permit identification of an individual, a practice, or an establishment will be held confidential will be used only by persons engaged in and for the purposes of the survey and will not be disclosed or released to other persons or used for any other purpose

BN#

PATIENT RECORD
NATIONAL AMBULATORY MEDICAL CARE SURVEY

1. DATE OF VISIT — Mo / Day / Yr

2. DATE OF BIRTH — Mo / Day / Yr

3. SEX
1 ☐ FEMALE
2 ☐ MALE

4. COLOR OR RACE
1 ☐ WHITE
2 ☐ NEGRO/BLACK
3 ☐ OTHER
4 ☐ UNKNOWN

5. PATIENT'S PRINCIPAL PROBLEM(S) COMPLAINT(S), OR SYMPTOM(S) THIS VISIT (In patient's own words)
a MOST IMPORTANT _____
b OTHER _____

6. SERIOUSNESS OF PROBLEM IN ITEM 5a (Check one)
1 ☐ VERY SERIOUS
2 ☐ SERIOUS
3 ☐ SLIGHTLY SERIOUS
4 ☐ NOT SERIOUS

7. HAVE YOU EVER SEEN THIS PATIENT BEFORE?
1 ☐ YES 2 ☐ NO
If YES, for the problem indicated in ITEM 5a?
1 ☐ YES 2 ☐ NO

8. MAJOR REASON(S) FOR THIS VISIT (Check all major reasons)
☐ ACUTE PROBLEM
☐ ACUTE PROBLEM FOLLOW-UP
☐ CHRONIC PROBLEM, ROUTINE
☐ CHRONIC PROBLEM FLARE-UP
☐ PRENATAL CARE
☐ POSTNATAL CARE
☐ POSTOPERATIVE CARE → _____ (Operative procedure)
☐ WELL ADULT CHILD EXAM
☐ FAMILY PLANNING
☐ COUNSELING ADVICE
☐ IMMUNIZATION
☐ REFERRED BY OTHER PHYS/AGENCY
☐ ADMINISTRATIVE PURPOSE
☐ OTHER (Specify) _____

9. PHYSICIAN'S PRINCIPAL DIAGNOSIS THIS VISIT
a DIAGNOSIS ASSOCIATED WITH ITEM 5a ENTRY
_____
_____
b OTHER SIGNIFICANT CURRENT DIAGNOSES (In order of importance)
_____
_____

10. DIAGNOSTIC/THERAPEUTIC SERVICES ORDERED/PROVIDED THIS VISIT (Check all that apply)
01 ☐ NONE
02 ☐ LIMITED HISTORY/EXAM
03 ☐ GENERAL HISTORY/EXAM
04 ☐ CLINICAL LAB. TEST
05 ☐ BLOOD PRESSURE CHECK
06 ☐ EKG
07 ☐ HEARING TEST
08 ☐ VISION TEST
09 ☐ ENDOSCOPY
10 ☐ OFFICE SURGERY
11 ☐ DRUG PRESCRIBED
12 ☐ X-RAY
13 ☐ INJECTION
14 ☐ IMMUNIZATION/DESENSITIZATION
15 ☐ PHYSIOTHERAPY
16 ☐ MEDICAL COUNSELING
17 ☐ PSYCHOTHERAPY/THERAPEUTIC LISTENING
18 ☐ OTHER (Specify) _____

11. DISPOSITION THIS VISIT (Check all that apply)
1 ☐ NO FOLLOW UP PLANNED
2 ☐ RETURN AT SPECIFIED TIME
3 ☐ RETURN IF NEEDED, P R N
4 ☐ TELEPHONE FOLLOW-UP PLANNED
5 ☐ REFERRED TO OTHER PHYSICIAN AGENCY
6 ☐ RETURNED TO REFERRING PHYSICIAN
7 ☐ ADMIT TO HOSPITAL
8 ☐ OTHER (Specify) _____

12. DURATION OF THIS VISIT (Time actually spent with physician)
_____ MINUTES

HRA-34-3
REV 8-74

DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
PUBLIC HEALTH SERVICE
HEALTH RESOURCES ADMINISTRATION
NATIONAL CENTER FOR HEALTH STATISTICS

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EXPIRATION DATE 12/31/75

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Use of Intrauterine Contraceptive Devices in the United States[1]

INTRODUCTION

About 6 percent of the married women and about 9 percent of the widowed, divorced, and separated women were using an intrauterine contraceptive device (IUD) as of 1976. The Lippes Loop was the most popular IUD, followed by the Copper 7.

The data presented in this report are the first national estimates of the use of intrauterine contraceptive devices, by type of device, from the 1973 and 1976 National Surveys of Family Growth conducted by the National Center for Health Statistics. The data were collected by means of personal interviews with a multistage probability sample of women 15-44 years of age in the household population of the conterminous United States. Women were eligible for inclusion in the sample if they were currently or previously married or were never married but had offspring presently living in the household. In this report the data refer only to women who were currently married, widowed, divorced, or separated at the time of interview.

The interview was focused on the respondents' marital and pregnancy histories, their use of contraception and the planning status of each pregnancy, their intentions regarding number and spacing of future births, their maternal and family planning services, and on a broad range of social and economic characteristics. Between June 1973 and February 1974, 3,856 black women and 5,941 women of other races were interviewed for Cycle I of the National Survey of Family Growth (NSFG). Between January and September of 1976, 3,009 black women and 5,602 women of other races were interviewed for Cycle II.[2] Further discussion of the survey design, definition of terms, and sampling variability is in the Technical Notes.

EXTENT OF IUD USE IN THE UNITED STATES

Among married women in the United States, the use of the intrauterine device (IUD) increased from less than 1 percent in 1965 to about 6 percent during the 1970's (table 1).[3] As of 1976, similar percents (6.1) of both white and black married women were using the IUD.

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[1]This report was prepared by Kathleen Ford, Ph.D., formerly with the Division of Vital Statistics.

[2]The numbers of black and white women interviewed in Cycle II were revised for this report and differ slightly from those numbers reported in *Advance Data*, Nos. 36 and 40. The revisions do not affect any other statistics reported here or previously.

[3]Data for 1965 and 1970 are from the first and second National Fertility Studies (NSF-I and NFS-II) and are reported, respectively, in *Reproduction in the United States*, 1965 by Ryder, N.B., and Westoff, C.F., Princeton, N.J. Princeton University Press, 1971; and in *The Contraceptive Revolution*, by Westoff, C.F., and Ryder, N.B., Princeton, N.J., Princeton University Press, 1977. The figures in table 1 were computed from the computer tapes obtained from the Data and Program Library Service at the University of Wisconsin at Madison.

Table 1. Percent of ever-married women 15-44 years of age and of contraceptive method users who were using the IUD at the survey date, by marital status and race: United States, 1965, 1970, 1973, and 1976

Race and year	Currently married		Widowed, divorced and separated	
	Percent of women	Percent of method users[1]	Percent of women	Percent of method users[1]
All races[2]				
1976	6.1	12.5	9.1	20.0
1973	6.7	12.5	7.2	23.7
1970[3]	5.0	9.3	*3.9	16.9
1965[3]	*0.7	*1.3	---	---
White				
1976	6.1	12.4	9.4	19.4
1973	6.6	12.3	7.0	23.2
1970[3]	4.9	8.9	*3.6	15.9
1965[3]	*0.7	*1.2	---	---
Black				
1976	6.1	13.4	8.8	22.3
1973	7.6	16.9	7.9	24.7
1970[3]	5.0	11.1	5.3	22.2
1965[3]	*1.5	*3.3	---	---

[1]Method use excludes surgical sterilization in this table.
[2]All races includes white, black, and other races.
[3]Data for 1965 and 1970 are from the first and second National Fertility Studies.

Among widowed, divorced, and separated women the proportion was higher (about 9 percent) than among married women.

Although the use of the IUD has increased in the last 10 years, it still represents a small part of American contraceptive practice. In 1976 the IUD was used by 12.5 percent of married users of nonsurgical contraceptive methods and by 20.0 percent of those who were widowed, divorced, or separated.

Type of IUD Used

In the 1976 NSFG, women whose current or most recent method was the IUD were shown a card displaying pictures of IUD's and were asked which type they had used most recently. About 9 percent of the married women and 8 percent of the widowed, divorced, and separated women did not know which type had been inserted.

Table 2 shows the number and percent distribution of ever-married women whose current or most recent method of contraception was the IUD by type of IUD, according to race and marital status. Among married women, the Lippes Loop was the most popular method mentioned (37.7 percent of IUD users), followed by the Copper 7 (27.8 percent), the Dalkon Shield (16.9 percent), and the Safe-T-Coil (12.5 percent). The relative popularity of the different types of IUD's among white and black women was similar except that more black women used the Safe-T-Coil than used either the Copper 7 or the Dalkon Shield. Among widowed, divorced, or separated women, the Lippes Loop was also the most commonly used IUD, followed by the Copper 7, the Safe-T-Coil, and the Dalkon Shield. As may be seen in table 3 and figure I, the distribution of women who were currently using the IUD at the survey date, by type of IUD, is similar to that of women whose most recent method was the IUD (table 2).

Figure 1. PERCENT DISTRIBUTION OF CURRENTLY MARRIED WOMEN 15-44 YEARS OF AGE USING THE IUD AT SURVEY DATE, BY TYPE OF IUD USED: UNITED STATES, 1976

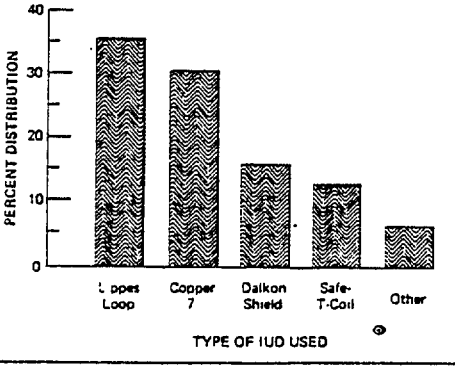

Table 2. Number of ever-married women 15-44 years of age whose most recent method of contraception was the IUD and percent distribution by type of IUD, according to marital status and race: United States, 1976

Marital status and race	Number of women in thousands	Type of IUD used					
		Total	Lippes Loop	Safe-T-Coil	Copper 7	Dalkon Shield	Other
Currently married							
All races[1]	1,990	100.0	37.7	12.5	27.8	16.9	*5.0
White	1,802	100.0	36.1	12.4	29.2	17.8	*4.5
Black	159	100.0	52.7	*17.4	*12.2	*9.5	*8.3
Widowed, divorced, or separated							
All races[1]	423	100.0	46.5	16.6	23.8	*8.5	*4.5
White	305	100.0	39.8	*17.3	27.4	*10.9	*4.5
Black	112	100.0	62.3	*15.4	*15.0	*2.4	*4.7

[1]All races includes white, black, and other races..

Parity of IUD Users

Among currently married women, IUD users are more likely to have had at least one child (87.5 percent) compared with users of other nonsurgical contraceptive methods (79.0 percent).

The proportion of currently married women using the various types of IUD's differed by parity or the number of live births they have had (table 4). For women with no live births, the Copper 7 was the most popular type IUD, but for women with two or more children the Lippes Loop was the type most often used.

Table 3. Number of ever-married women 15-44 years of age using the IUD at survey date and percent distribution by type of IUD, according to marital status and race: United States, 1976

Marital status and race	Number of women in thousands	Type of IUD used					
		Total	Lippes Loop	Safe-T-Coil	Copper 7	Dalkon Shield	Other
Currently married							
All races[1]	1,582	100.0	35.2	13.1	30.2	15.3	*6.2
White	1,436	100.0	33.7	13.1	31.5	15.9	*5.7
Black	124	100.0	51.3	*15.8	*14.8	*10.2	*7.8
Widowed, divorced, or separated							
All races[1]	311	100.0	48.5	*15.8	24.6	*8.8	*2.2
White	230	100.0	41.9	*17.7	27.3	*11.6	*1.5
Black	81	100.0	67.8	*10.3	*16.7	*0.9	*4.3

[1]All races includes white, black, and other races.

Table 4. Number of currently married women 15-44 years of age using the IUD at survey date and percent distribution by type of IUD used, according to parity: United States, 1976

Parity	Number of women in thousands	Type of IUD used					
		Total	Lippes Loop	Safe-T-Coil	Copper 7	Dalkon Shield	Other
All	1,582	100.0	35.2	13.1	30.2	15.3	*6.2
Zero	205	100.0	*20.5	*2.6	50.6	*23.6	*2.8
First	351	100.0	24.8	*12.3	36.3	*15.6	*10.9
Second or more	1,026	100.0	42.3	15.8	23.4	13.3	*5.2

TECHNICAL NOTES

The Survey Design

The National Survey of Family Growth (NSFG) is designed to provide data on fertility, family planning, and related aspects of maternal and child health. Field work for Cycle I was carried out by the National Opinion Research Center between June 1973 and February 1974. Field work for Cycle II was carried out by Westat, Inc., between January and September 1976.

A multistage probability sample of women in the household population of the conterminous United States was used in both cycles. Each time, approximately 33,000 households were screened to identify the sample of women who would be eligible for the NSFG, i.e., women aged 15 to 44 years, inclusive, who were currently married or previously married or who were never married but had offspring presently living in the household. In households with more than one eligible woman, a random procedure was used to select only one to be interviewed. Since the interviews were always conducted with the sample person, the term "respondent" is used as synonymous with sample person. A detailed description of the sample design for Cycle I is presented in "National Survey of Family Growth, Cycle I: Sample Design, Estimation Procedures, and Variance Estimation," Series 2, No. 76 in the *Vital and Health Statistics* series. A similar report is in preparation for Cycle II.

While the interviews varied greatly in the time required for their completion, they averaged about 70 minutes for Cycle I and about 58 minutes for Cycle II.

Quality control procedures were applied at all stages of the survey. These included a verification of listing completeness, with unlisted dwelling units being brought into the sample; a preliminary field review of completed questionnaires for possible missing data or inaccurate administration; a 10-percent sample recheck of all households to be screened during the survey; observation of interviews in the field; and an independent recoding of a 5-percent subsample of completed interviews.

Reliability of Estimates

Since the statistics presented in this report are based on a sample, they may differ somewhat from the figures that would have been obtained if a complete census had been taken using

the same questionnaires, instructions, interviewing personnel, and field procedures. This chance difference between sample results and a complete count is referred to as sampling error. In addition, the results are also subject to nonsampling error due to respondent misreporting, data processing mistakes, and nonresponse. It is very difficult, if not impossible, to obtain accurate measures of nonsampling errors. These types of errors were kept to a minimum by the quality control procedures and by other methods incorporated into the survey design and administration.

Sampling error, or the extent to which samples may differ by chance from a complete count, is measured by a statistic called the standard error of estimate. Approximate standard errors for estimated numbers and percentages from Cycle I are shown in tables I and II for the total and white populations and in tables III and IV for the black population. Provisional estimates for standard errors for Cycle II for total and white women can be obtained by multiplying the standard errors for these women from Cycle I by a factor of 1.1. Similarly, provisional estimates of standard errors for Cycle II for black women can be obtained by multiplying the standard errors for these women from Cycle I by a factor of 1.2.

Table I. Approximate standard errors for estimated numbers for white and total women: 1973 National Survey of Family Growth

Size of estimate	Relative standard error	Standard error
50,000	30.0	15,000
100,000	21.2	21,000
200,000	15.0	30,000
500,000	9.5	47,000
1,000,000	6.7	67,000
2,000,000	4.8	95,000
5,000,000	3.0	151,000
10,000,000	2.2	216,000
20,000,000	1.5	311,000

Table II. Approximate standard errors for estimated percentages expressed in percentage points for white and total women: 1973 National Survey of Family Growth.

Base of percentage	Estimated percentage						
	2 or 98	5 or 95	10 or 90	20 or 80	30 or 70	40 or 60	50
100,000	3.0	4.6	6.4	8.5	9.7	10.4	10.6
500,000	1.3	2.1	2.8	3.8	4.3	4.6	4.7
1,000,000	0.9	1.5	2.0	2.7	3.1	3.3	3.3
3,000,000	0.5	0.8	1.2	1.5	1.8	1.9	1.9
5,000,000	0.4	0.6	0.9	1.2	1.4	1.5	1.5
7,000,000	0.3	0.5	0.8	1.0	1.2	1.2	1.3
10,000,000	0.3	0.5	0.6	0.8	1.0	1.0	1.1

Table III. Approximate standard errors for estimated numbers for black women: 1973 National Survey of Family Growth

Size of estimate	Relative standard error	Standard error
25,000	25.3	6,000
50,000	17.9	9,000
100,000	12.7	13,000
150,000	10.3	16,000
250,000	8.0	20,000
350,000	6.8	24,000
500,000	5.7	28,000
750,000	4.7	35,000
1,000,000	4.0	40,000

Table IV. Approximate standard errors for estimated percentages expressed in percentage points for black women: 1973 National Survey of Family Growth

Base of percentage	Estimated percentage						
	2 or 98	5 or 95	10 or 90	20 or 80	30 or 70	40 or 60	50
5,000	7.9	12.3	17.0	22.6	25.9	27.7	28.3
10,000	5.6	8.7	12.0	16.0	18.3	19.6	20.0
50,000	2.5	3.9	5.4	7.1	8.2	8.8	8.9
100,000	1.8	2.7	3.8	5.1	5.8	6.2	6.3
300,000	1.0	1.6	2.2	2.9	3.3	3.6	3.6
500,000	0.8	1.2	1.7	2.3	2.6	2.8	2.8
700,000	0.7	1.0	1.4	1.9	2.2	2.3	2.4
1,000,000	0.6	0.9	1.2	1.6	1.8	2.0	2.0

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 differences between the sample estimate and a complete count would be less than twice the standard error. The relative standard error is the ratio of the standard error to the statistic being estimated. In this report, numbers and percentages which have a standard error that is more than 25 percent of the estimate itself are considered "unreliable." They are marked with an asterisk to caution the user but may be combined to make other types of comparisons of greater precision.

In this report, terms such as "similar" and "the same" mean that any observed difference between two estimates being compared is not statistically significant. Similarly, terms such as "greater," "less," "larger," and "smaller" indicate that the observed differences are statistically significant. The normal deviate test with a 0.5 level of significance was used to test all comparisons which are discussed in the text. A statistically significant difference is one large enough that in repeated samples of the same size and type as this one, such a large difference would be expected to be found in less than 5 percent of the samples. Lack of comment in the text between any two statistics does *not* mean the difference was tested and found not to be significant.

Adjustment for nonsampling error due to nonresponse was made in two ways. Nonrespondent cases, as distinct from missing data items, were imputed by weighting for nonresponse within each primary sampling unit, stratum, and age-race category. In the 1973 survey, codes for missing items were imputed using a "hot deck" procedure. In the 1976 survey, imputation for missing data items has not been performed and the distributions shown in the tables are based only on those interviews where enough information was obtained from the respondent to determine contraceptive status.

Cases for which the value of a given distribution is missing are shown in the totals. As a result, in the 1976 figures, about 1,061,000 women out of an estimated 31,847,000 total ever-married women are not represented in the distribution by contraceptive status.

Definition of Terms

Method Users.—A woman (or couple) who reported use of a contraceptive method at the date of interview was classified according to the specific method used.

Most Recent Method.—A woman (or couple) who reported use of a method at the time of interview was classified according to the specific method used. A woman (or couple) not using a method at the time of interview was classified according to the specific method used most recently.

Type of Intrauterine Device.—Type of intrauterine device was determined by showing the woman being interviewed a card with pictures and names of IUD's and asking her to identify the type she was using or had used.

Age.—In this report, age is classified by the age of the respondent at her last birthday before the date of interview.

Race.—Classification by race, based on interviewer observation, was reported as black, white, or other. Race refers to the race of the woman interviewed.

Marital status.—Persons are classified by marital status as married, widowed, divorced, separated, or never married. Married persons include those who report themselves as married or as informally married, such as living with a partner or common-law spouse. Persons who are temporarily separated for reasons other than marital discord, such as vacation, illness, or Armed Forces, are classified as married. Divorced persons are those whose most recent marriage was legally dissolved and who are free to remarry. Women with an annulled marriage, while having the legal status of never having been married, are classified together with the divorced. The category "separated" includes those

who are legally or informally separated from their most recent spouse due to marital discord. The "never married" include those who have never had a formal marriage and do not consider themselves in any of the preceding categories. However, in the NSFG, only single women with offspring living in the household are included and separately classified.

Parity.—Parity refers to the number of live births the respondent has had.

SYMBOLS

Data not available	---
Category not applicable	...
Quantity zero	-
Quantity more than 0 but less than 0.05	0.0
Figure does not meet standards of reliability or precision	*

advancedata

FROM VITAL & HEALTH STATISTICS OF THE NATIONAL CENTER FOR HEALTH STATISTICS

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE • Public Health Service Office of Health Research, Statistics, and Technology | Number 44 • September 20, 1979

Health Care Coverage: United States, 1976[1]

As a national issue, the type and extent of health insurance coverage has been a matter of concern for some time. The debate over the various national health insurance proposals routinely focuses on the extent and type of coverage to be made available under legislation. In particular, the number of uninsured persons and their characteristics have been a matter of interest and investigation. Thus the population's current level of coverage must be presented in both a timely and relevant fashion. There is a need to answer the following questions: How many persons have no health care coverage at all? What are their characteristics? Among persons who have health care coverage, how many are covered under broad types of public and private insurance programs? How many persons are covered exclusively under public programs? This report presents statistics that bear directly on these questions and are based primarily on survey respondents' perceptions of their health care coverage.

Findings in this report include estimates from the Health Interview Survey (HIS) of the number of persons covered under specific plans or programs, regardless of other coverage, as well as those covered exclusively under certain plans or programs.

During 1976, the HIS questionnaire included questions designed to obtain information about coverage under private and public health care plans or programs in the civilian noninstitutionalized population of the United States. Data were obtained on Medicare, Medicaid, and private hospital and surgical insurance coverage. Information concerning health care coverage was reported by one household respondent on behalf of the entire household. Information on private insurance coverage was collected in several areas: what services the plan paid for (hospital and/or surgical expenses); how the plan was obtained (through a company, union, or some other method); and the type of plan (Blue Cross/Blue Shield, prepaid, or other). If the respondent had no private hospital insurance coverage, no Medicare coverage (for persons 65 years and over), and no Medicaid coverage, a question was asked to determine the major reason for lack of coverage.

Further, HIS collected information on persons receiving Aid to Families with Dependent Children (AFDC) and Supplemental Security Income (SSI). Both groups are usually eligible to receive medical care paid for by the Medicaid program.

All of the above data items are based primarily on the survey respondents' perceptions of their health care coverage. When employed in a way to insure the elimination of double counting, they provide a portrait of the extent of health care coverage in the civilian noninstitutionalized population. However, little information is available on the proportion of health care costs paid for by different public or private plans or programs.[2]

In 1976 approximately 186,583,000 persons, or 89.0 percent of the civilian noninstitu-

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[1] This report was prepared by Larry S. Corder, Ph.D., formerly with the Division of Health Interview Statistics.

[2] Extensive information concerning adequacy of coverage will be available from the National Medical Care Expenditure Survey (NMCES) in the near future. NMCES is a joint project of the National Center for Health Statistics and the National Center for Health Services Research.

tionalized population of the United States, are estimated to have had some form of health care coverage. The remaining 11.0 percent, 23,200,000 persons, who had no coverage under either public or private programs are defined as the uninsured population.

An estimated 159,957,000 persons had private insurance coverage. Approximately 145,880,000 of these persons had private coverage only, while the remaining 14,077,000 reported Medicare and/or Medicaid coverage as well. This figure includes an estimated 11,656,000 Medicare enrollees, 60.0 percent of all Medicare enrollees, whose coverage was supplemented by some form of private insurance plan.

An estimated 16,392,000 persons were covered by Medicaid regardless of other coverage. About 12,162,000 of these had coverage under the Medicaid program only. These estimates differ from the 24.7 million recipients recorded by Medicaid program statistics in 1976.

DATA HIGHLIGHTS

Table 1 presents information on the population's[3] health care coverage under private or public plans or programs. In this table, no person can be covered in more than one major category of coverage. Once a person appears under a major category of coverage, then that person cannot appear in another major category in the table. For example, a person covered by both private hospital insurance and Medicare

[3]The term "population" as used in this report refers to the civilian noninstitutionalized population.

Table 1. Number, percent, cumulative number, and cumulative percent of the population, by health care coverage under types of private or public plans or programs: United States, 1976

Type of private or public plan or program	Number in thousands	Percent	Cumulative number in thousands	Cumulative percent
Private hospital insurance	159,957	75.9	159,957	75.9
Private hospital insurance only	145,880	69.3	145,880	69.3
Private hospital insurance and Medicare	11,656	5.5	157,536	74.8
Private hospital insurance and Medicaid	2,421	1.1	159,957	75.9
Medicare coverage, no private hospital insurance	7,756	3.7	167,713	79.6
Medicare coverage only	5,948	2.8	165,905	78.8
Medicare and Medicaid coverage only	1,808	0.9	167,713	79.6
Medicaid coverage only	12,162	5.8	179,875	85.4
Other plans or programs only[1]	5,084	2.4	184,959	87.8
Private hospital insurance only, but don't know what plan covers	1,624	0.8	186,583	88.6
No other coverage; don't know if covered by private hospital insurance	861	0.4	187,444	89.0
No health care coverage	23,200	11.0	210,644	100.0

[1]"Other plans or programs only" breakdown as follows:

CHAMPUS, CHAMPVA	4,807
Private surgical insurance only	236
Professional courtesy	41

NOTE: In this table, a person may appear only once in a major category regardless of the number of programs, plans, or policies he or she is covered under.

would be counted in the major category "private hospital insurance." Further, that person would be counted in the "private hospital insurance and Medicare" subcategory, one of the subcategories which sum to the "private hospital insurance" major category. While this breakdown by major categories superficially understates the number of persons covered under various public programs, its use makes the examination of a number of policy-relevant groups possible and eliminates multiple counting of people with more than one form of coverage. The elimination of multiple counting for health care coverage is essential to arriving at an accurate estimate of the number of uninsured persons.

Highlights from table 1 include an estimate of the uninsured group, 23,200,000 persons, or about 11 percent of the population; an estimate of the group covered by private hospital insurance and/or Medicare, 167,713,000 persons, or approximately 80 percent of the population; and an estimate of the number of persons covered by Medicaid only, 12,162,000 persons, or approximately 6 percent of the population.

Table 1 shows that 159,957,000 persons, or approximately 76 percent of the population, had private hospital insurance coverage during 1976. Included in this group are persons having private hospital insurance and Medicare coverage, 5.5 percent of the population, and persons having private hospital insurance and Medicaid coverage (1.1 percent).

Persons covered by Medicare but not by private hospital insurance comprised approximately 4 percent of the population (7,756,000 persons). About 2.8 percent of the population had Medicare coverage only, and 0.9 percent had both Medicare and Medicaid coverage but no private hospital insurance. Persons covered only by Medicaid comprised approximately 6 percent of the population, 12,162,000 persons.

Cumulatively, therefore, approximately 85 percent of the population were covered under some combination of private hospital insurance, Medicare, or Medicaid. An additional 2 percent of the population were covered under other plans or programs. These are the Civilian Health and Medical Program for Veterans Administration (CHAMPVA), the Civilian Health and Medical Program for Uniformed Services (CHAMPUS), professional courtesy, and private surgical insurance only. These programs, along with Medicare, Medicaid, and private hospital insurance, provided approximately 88 percent of the population with some form of health care coverage. Another 1 percent of the population, 1,624,000 persons, were covered by private hospital insurance but did not know if their plans covered hospital charges or physicians' fees while in the hospital. These persons were not covered by any other private or public hospital insurance plan. Adding these to the insured population yields a total of 186,583,000 persons, or approximately 89 percent of the population, covered under some combination of Medicare, Medicaid, private hospital insurance, other plans or programs, or unidentified private hospital insurance only.

An estimated 861,000 persons did not know if they had private hospital insurance but were not covered by any other public or private plan or program. Persons in this category were counted as neither insured nor uninsured. Rather, based on the respondents' perception of coverage, they were categorized under "no other insurance, don't know if covered by private hospital insurance."

The remaining population, approximately 23 million persons, or 11 percent of the population, were not covered by any private or public health care coverage plans or programs in 1976. These persons are defined as uninsured. Twelve percent of the population under 65 years of age, 22,763,000 persons, were uninsured. Aday and Anderson, using their own methods and data from a 1975-76 survey of the civilian noninstitutionalized population, also estimated that 12 percent of the group under 65 years of age were uninsured.[4]

Major Health Care Coverage Categories

Table 1, in which multiple counting of covered persons is eliminated, presents estimates of the number of uninsured persons but does not

[4]Aday, L. A., and Andersen, R.: Insurance coverage and access: implications for health policy. *Health Serv. Res.* 13(4):369-377, Winter 1978.

Table 2. Number and percent of persons with health care coverage under major private or public plans or programs, by age: United States, 1976

Major private or public plan or program	All ages		Under 65 years		65 years and over	
	Number in thousands	Percent	Number in thousands	Percent	Number in thousands	Percent
All plans or programs	210,643	100.0	188,844	100.0	21,799	100.0
Private hospital insurance	159,957	75.9	146,340	77.5	13,617	62.5
Medicare	19,412	9.2	420	0.2	18,992	87.1
Medicaid	16,392	7.8	13,835	7.3	2,557	11.7
Other plans or programs[1]	4,868	2.3	4,790	2.5	78	0.4
Private surgical insurance	156,276	74.2	143,450	76.0	12,826	58.8

[1] Excludes private surgical coverage only.

NOTE: Types of coverage do not sum to the population total. The table reflects extent of coverage of each type and, thus, does not exclude double counting.

accurately reflect the total number of persons covered under each private and public program. Table 2 presents information concerning the five most common types of health care coverage without eliminating multiple counting. A person covered by both private hospital insurance and Medicare appears in both categories in table 2. Therefore the total number of persons appearing in table 2 exceeds the total population. In addition, the estimates presented do not correspond to estimates of coverage provided by specific programs. The reasons for differences between HIS estimates and those reported by the groups responsible for administering the various public programs are examined in the following text.

The HIS estimates that 9 percent of the population, 19,412,000 persons, were covered by Medicare in 1976. This estimate falls short of that prepared by the Medicare program. The Medicare program estimates, based on enrollment records, that 22,849,782 persons 65 years and over were covered during the year and that an additional 2,339,502 persons under 65 years of age were covered by Medicare disability and end-stage renal disease provisions. The difference between the HIS estimate and Medicare enrollment data for persons 65 years of age and over may be attributed to a number of factors. First, HIS is a survey of the civilian noninstitutionalized population and does not, therefore, reach those persons in institutions who receive Medicare benefits. Second, HIS may undercount the number of persons who receive Medicare benefits. Among persons under 65 years of age, the difference between the survey estimate of coverage and the estimate of coverage based on enrollment data may be substantially attributed to an additional factor related to the survey instrument design. In 1976, HIS allowed persons under 65 years of age to be counted as covered by Medicare only if they affirmed that they were not covered by private hospital insurance or Medicaid.

Persons categorized by HIS as being covered under private hospital insurance constituted approximately 76 percent of the population, 159,957,000 persons. Respondents included in that category claimed they had private hospital insurance coverage and were able to supply the name of their insurance plan. Persons covered under private surgical insurance comprised approximately 74 percent of the total population, 156,276,000 persons.

The primary source of comparable data on private hospital insurance is the Health Insurance Association of America (HIAA). For 1976, their estimate of the number of persons protected by hospital insurance was 176,581,000 persons of all ages—164,027,000 persons under 65 years of age and 12,554,000 persons aged 65 years and over. The differences

in the magnitude of HIS and HIAA estimates might be attributed to survey undercounts (HIS) and to inadequate adjustment for multiple coverage (HIAA).

The HIS estimates that during 1976, 16,392,000 persons, approximately 8 percent of the population, were covered by Medicaid. Respondents included in this category either specifically affirmed that they had been covered by Medicaid in the previous 12 months or met other detailed criteria listed in the definitions. The Medicaid program, however, estimated that 24,666,252 persons received services paid for by Medicaid during fiscal year 1976. The Medicaid estimate of its recipient population is based on "unduplicated recipient counts" reported by 44 States and ratio adjustment for remaining States which did not provide such an estimate. However, little information is available concerning the manner in which the States counted Medicaid recipients, and it is speculated that these counts may contain substantial duplication. The difference between the Medicaid program's estimate of its recipient population and the estimate based on HIS data may be further explained by the HIS exclusion of the institutionalized population.

The major category "other plans or programs" comprises persons who had no insurance but who were covered by one of the following: CHAMPUS, CHAMPVA, or professional courtesy. Approximately 2 percent of the popuation, 4,868,000 persons, were covered under some combination of these plans. Comparable program estimates of persons covered in this category are not readily available.

Uninsured

Tables 3 and 4 show the number and percent of persons by type of health insurance coverage or lack of coverage according to selected characteristics. The uninsured, 11.0 percent of the population, are not under any sort of health care coverage, public or private. Differences in the percent of the population under no health care coverage between and among population subgroups are readily apparent.

A comparison of the age groups under 6 years and 65 years and over is most striking. Among children under 6 years of age, 13.0 percent were uninsured, while among those persons 65 years and over, 2.0 percent were uninsured. A lower proportion of white persons (about 10 percent) than of all other persons (about 16 percent) were uninsured. The proportion of the population without health coverage declines as family income rises. Among persons in families with incomes of less than $3,000, 21.8 percent were uninsured, while among persons in families with incomes of $15,000 or more, approximately 4 percent were uninsured. A smaller proportion of persons with 13 years or more of education were uninsured (7.1 percent) compared with those with 11 years of schooling or less (14.3 percent).

Geographic, occupational, and industrial variables and differences in utilization of health services also are related to differences in the extent of insurance coverage. With respect to residence, approximately 19 percent of the persons who lived outside standard metropolitan statistical areas (SMSA's) on farms were uninsured, while 8.1 percent of persons who lived in SMSA's but not in the central city were uninsured. Regional differences in the proportion of the population with no health care coverage also show an interesting pattern. Both the Northeast and North Central Regions had approximately 8 percent uninsured, while the South and West had 14.6 and 13.7 percent uninsured, respectively.

Wide differences appear in the number and percent of the uninsured in various population subgroups according to occupation and industry groupings. Among professionals, approximately 5 percent were uninsured, while among farm laborers and farm foremen, approximately 41 percent were uninsured. Among those not in the labor force, 11.0 percent were uninsured. These 12,842,000 uninsured persons not in the labor force constituted approximately 55 percent of all the uninsured. Generally, white-collar groups had a smaller percentage of uninsured persons than the blue-collar groups.

Wide differences between groupings by industry are also apparent. Among those persons in the agricultural grouping, approximately 29 percent were uninsured, while only 4.4 percent of persons in public administration were uninsured. The groupings of mining, manufacturing, transportation and public utilities, finance,

Table 3. Number and percent of the population, by types of health care coverage and selected characteristics: United States, 1976

Selected characteristic	Health care coverage								No other insurance; don't know if covered by private hospital insurance		No health care coverage	
	Private hospital insurance, Medicare, or both		Medicaid coverage only		Other plans or programs only		Private hospital insurance, don't know coverage					
	Number in thousands	Percent	Number in thousands	Percent	Number in thousands	Percent	Number in thousands	Percent	Number in thousands	Percent	Number in thousands	Percent
All persons	167,713	79.6	12,162	5.8	5,084	2.4	1,624	0.8	861	0.4	23,200	11.0
Age												
Under 6 years	13,237	70.0	2,373	12.5	631	3.3	104	0.6	106	0.6	2,469	13.0
6-18 years	37,942	75.3	4,550	9.0	1,474	2.9	389	0.8	228	0.5	5,825	11.6
19-54 years	79,283	79.5	4,177	4.2	2,365	2.4	913	0.9	378	0.4	12,550	12.6
55-64 years	16,292	82.1	815	4.1	527	2.7	174	0.9	122	0.6	1,919	9.7
65 years and over	20,958	96.1	247	1.1	87	0.4	43	0.2	*27	*0.1	437	2.0
Sex												
Male	81,367	80.1	4,923	4.8	2,381	2.3	783	0.8	424	0.4	11,748	11.6
Female	86,346	79.2	7,239	6.6	2,704	2.5	840	0.8	436	0.4	11,452	10.5
Color												
White	150,855	82.5	6,883	3.8	4,369	2.4	1,398	0.8	671	0.4	18,675	20.2
All other	16,858	60.7	5,279	19.0	716	2.6	225	0.8	189	0.7	4,525	16.3
Family income[1]												
Less than $3,000	6,409	51.0	3,068	24.4	176	1.4	108	0.9	74	0.6	2,740	21.8
$3,000-$4,999	9,097	55.4	3,438	20.9	194	1.2	83	0.5	99	0.6	3,500	21.3
$5,000-$6,999	11,534	62.8	2,271	12.4	470	2.6	156	0.8	82	0.4	3,857	21.0
$7,000-$9,999	18,327	75.8	1,097	4.5	843	3.5	192	0.8	56	0.2	3,658	15.1
$10,000-$14,999	38,619	86.8	715	1.6	1,283	2.9	289	0.7	128	0.3	3,437	7.7
$15,000 or more	69,960	92.3	426	0.6	1,663	2.2	486	0.6	157	0.2	3,104	4.1
Education of individual[2]												
0-11 years	39,129	75.6	3,821	7.4	854	1.7	358	0.7	207	0.4	7,404	14.3
12 years	44,803	84.0	1,390	2.6	1,252	2.3	483	0.9	160	0.3	5,278	9.9
13 years or more	37,062	88.4	440	1.0	1,026	2.4	329	0.8	120	0.3	2,965	7.1
Residence												
SMSA	116,328	80.7	8,992	6.2	3,302	2.3	1,129	0.8	639	0.4	13,837	9.6
Central city	46,109	75.1	6,008	9.8	1,409	2.3	425	0.7	292	0.5	7,168	11.7
Not central city	70,219	84.8	2,983	3.6	1,892	2.3	704	0.9	347	0.4	6,669	8.1
Outside SMSA	51,385	77.4	3,171	4.8	1,783	2.7	495	0.8	222	0.3	9,363	14.1
Nonfarm	46,354	77.4	3,069	5.1	1,676	2.8	463	0.8	213	0.4	8,106	13.5
Farm	5,031	76.9	102	1.6	107	1.6	*32	*0.5	*9	*0.1	1,257	19.2

See footnote at end of table.

Table 3. Number and percent of the population, by types of health care coverage and selected characteristics: United States, 1976—Con.

Selected characteristic	Health care coverage								No other insurance; don't know if covered by private hospital insurance		No health care coverage	
	Private hospital insurance, Medicare, or both		Medicaid coverage only		Other plans or programs only		Private hospital insurance, don't know coverage					
	Number in thousands	Percent	Number in thousands	Percent	Number in thousands	Percent	Number in thousands	Percent	Number in thousands	Percent	Number in thousands	Percent
Geographic region												
Northeast	40,394	83.1	3,449	7.1	468	1.0	391	0.8	227	0.5	3,683	7.6
North Central	47,973	85.3	2,752	4.9	464	0.8	425	0.8	161	0.3	4,458	7.9
South	50,717	75.1	3,471	5.1	2,682	4.0	576	0.9	293	0.4	9,833	14.6
West	28,629	74.9	2,490	6.5	1,470	3.8	231	0.6	179	0.5	5,225	13.7
Physician visit in last year												
No	39,880	75.4	2,454	4.6	1,032	2.0	525	1.0	300	0.6	8,677	16.4
Yes	127,833	81.0	9,708	6.2	4,052	2.6	1,098	0.7	560	0.4	14,522	9.2
Hospitalization in last year												
No	149,728	79.5	10,309	5.5	4,506	2.4	1,500	0.8	800	0.4	21,471	11.4
Yes	17,985	80.6	1,852	8.3	578	2.6	124	0.6	60	0.3	1,729	7.7

[1]Excludes persons with unreported income.
[2]Excludes persons under 17 years of age.

insurance and real estate, service and miscellaneous, and public administration were characterized by a lower percent uninsured than the national average. Groupings with a higher percent of uninsured persons than the national average were agriculture, forestry and fisheries, construction, and wholesale and retail trade, which are industries characterized by seasonal employment, self-employment, and low levels of unionization.

Among persons who did not see a physician during the year, approximately 16 percent were uninsured, while among persons who saw a physician, approximately 9 percent were uninsured. For persons who were not hospitalized during the year, approximately 11 percent did not have health care coverage, while among those persons with a hospitalization, approximately 8 percent were uninsured.

In summary, a pattern of differences in the extent of health care coverage for different population subgroups emerges according to standard social and demographic characteristics. The uninsured are proportionately concentrated among those who have low incomes, work in certain industries, have low educational attainment, are very young and are other than white.

Private Hospital Insurance, Medicare, or Both

Approximately 4 out of 5 persons were covered under private hospital and/or Medicare insurance in 1976. Many persons were covered by both, as indicated in table 1—11,656,000 persons, or 5.5 percent of the population. As indicated in table 2, 19,412,000 persons, or approximately 9 percent of the population, were

Table 4. Number and percent of the population, by type of health care coverage, occupation, and industry: United States, 1976

Occupation and industry	Health care coverage								No other insurance; don't know if covered by private hospital insurance		No health care coverage	
	Private hospital insurance, Medicare, or both		Medicaid coverage only		Other plans or programs only		Private hospital insurance, don't know coverage					
	Number in thousands	Percent	Number in thousands	Percent	Number in thousands	Percent	Number in thousands	Percent	Number in thousands	Percent	Number in thousands	Percent
All persons	167,713	79.6	12,162	5.8	5,084	2.4	1,624	0.8	861	0.4	23,200	11.0
Occupation												
Professional, technical, and kindred workers	13,207	92.6	75	0.5	204	1.4	90	0.6	*31	*0.2	663	4.6
Managers and administrators, except farm	9,184	89.5	*32	*0.3	199	1.9	84	0.8	*22	*0.2	741	7.2
Sales workers	4,947	84.6	84	1.4	156	2.7	47	0.8	*19	*0.3	591	10.1
Clerical and kindred workers	14,249	87.9	274	1.7	294	1.8	190	1.2	52	0.3	1,150	7.1
Craftsmen and kindred workers	10,260	84.0	136	1.1	169	1.4	110	0.9	35	0.3	1,504	12.3
Operatives, except transport	9,328	83.6	278	2.5	106	0.9	135	1.2	*25	*0.2	1,289	11.6
Transport equipment operatives	2,827	80.8	61	1.7	55	1.6	38	1.1	*22	*0.6	496	14.2
Laborers, except farmers	3,010	72.2	103	2.5	75	1.8	55	1.3	*22	*0.5	906	21.7
Farm managers	1,164	78.4	*2	*0.1	*16	*1.1	*9	*0.6	*4	*0.3	289	19.5
Farm laborers and farm foremen	591	53.9	37	3.4	*15	*1.3	*-	*-	*4	*0.3	449	41.0
Service workers, except private household	8,676	77.3	394	3.5	310	2.8	117	1.0	53	0.5	1,672	14.9
Private household workers	683	62.4	103	9.4	*	*	*	*	*9	*0.3	273	25.0
Unknown	1,078	66.4	126	7.8	41	2.6	*	*	*21	*1.3	334	20.5
Not in labor force	88,509	76.0	10,457	9.0	3,422	2.9	123	0.6	540	0.5	12,842	11.0
Industry												
Agriculture	2,125	67.8	51	1.6	38	1.2	*17	*0.5	*9	*0.3	895	28.6
Forestry and fisheries	69	68.3	*4	*3.6	*-	*-	*10	*9.7	*-	*-	*19	*8.3
Mining	697	91.0	*6	*0.8	*6	*0.7	*6	*0.7	*-	*-	53	6.9
Construction	4,456	76.2	77	1.3	103	1.8	64	1.1	*24	*0.4	1,119	19.2
Manufacturing	19,530	89.0	298	1.4	161	0.7	218	1.0	41	0.2	1,685	7.7
Transportation and public utilities	5,155	88.5	66	1.1	59	1.0	56	1.0	*26	*0.4	461	7.9
Wholesale and retail trade	14,878	80.1	385	2.1	441	2.4	201	1.1	93	0.5	2,565	13.8
Finance, insurance, and real estate	4,578	90.3	*30	*0.6	91	1.8	44	0.9	*14	*0.2	316	6.2
Service and miscellaneous	21,597	84.2	585	2.3	502	2.0	218	0.9	86	0.3	2,671	10.4
Public administration	5,095	89.4	73	1.3	225	3.9	46	0.8	*10	*0.2	253	4.4
Unknown	1,023	66.0	130	8.4	37	2.4	*22	*1.4	*18	1.1	320	20.6
Not in labor force	88,509	76.0	10,457	9.0	3,422	2.9	723	0.6	540	0.5	12,842	11.0

covered by Medicare, and 159,957,000 persons, or approximately 76 percent of the population, were covered by private hospital insurance. (Figures from table 2 reflect coverage in these programs regardless of other coverage.)

The proportion of the population insured under private hospital insurance, Medicare, or both increased directly with age. Among persons under 6 years of age, 70 percent had such coverage, while for persons 65 years and over,

approximately 96 percent were covered. While there is very little difference in the extent of private hospital and/or Medicare coverage between the sexes, the difference in coverage between the two major color groups is substantial. Approximately 83 percent of white persons were insured under private hospital insurance and/or Medicare, compared with 61 percent of persons of all other races.

The proportion of persons with such coverage increased directly with increasing income. Among persons in families with incomes of less than $3,000, 51.0 percent of the population were so insured. Among persons who belonged to families with incomes of $15,000 or more, approximately 92 percent were insured by private hospital insurance, Medicare, or both. The same pattern was found when educational level was examined. Approximately 76 percent of those persons who had completed 0-11 years of education were covered, compared with approximately 88 percent of those who had completed 13 years or more.

The extent of coverage also varied by place of residence and region. Approximately 77 percent of persons who lived on farms outside of SMSA's were covered, compared with approximately 85 percent of persons who lived in SMSA's outside central cities. Further, persons who lived in the Northeast and North Central Regions were covered to a greater extent than those who lived in the South or West.

With respect to utilization of health services, approximately 75 percent of persons who did not use the services of a physician during the year were covered, while 81 percent of those who did use physician services during the year were covered. There was very little difference in extent of coverage, however, when those who were hospitalized during the year were compared with those who were not hospitalized.

Both occupation and industry showed substantial differences between categories with respect to the extent of coverage under private hospital insurance, Medicare, or both. The extent of such coverage ranged from approximately 93 percent among professional, technical, and kindred workers to approximately 54 percent among farm laborers and farm foremen. With respect to industry, coverage ranged from approximately 91 percent in mining to 68 percent in agriculture. Approximately 76 percent of persons not in the labor force were covered under private hospital insurance, Medicare, or both.

Medicaid Only

Of the estimated 16.4 million persons covered by Medicaid in 1976, approximately 12.2 million persons had no other coverage. The remaining persons were also covered by private hospital insurance, Medicare, CHAMPUS or CHAMPVA, or professional courtesy.

The proportion of the population covered only by Medicaid declined with age. Approximately 13 percent of persons under 6 years of age were covered only by Medicaid while 9 percent aged 6-18 years were so covered. Among persons 65 years and over, only 1.1 percent were covered by Medicaid only. The proportion of females covered by Medicaid was greater than that for males—approximately 7 percent for females and 5 percent for males.

The extent of coverage under Medicaid only varied substantially by color. Approximately 4 percent of white persons and 19 percent of all other persons were covered by Medicaid only. However, there were more white persons than all other persons covered under Medicaid.

As expected, the proportion of persons covered only by Medicaid declined sharply as income level rose. Approximately 24 percent of persons in families with incomes of $3,000 or less were covered by Medicaid only. As would be expected because of eligibility requirements, only about 1 percent of the persons who belonged to families with income of $15,000 or more were covered by Medicaid only Four hundred twenty-six thousand persons in this category, Medicaid coverage only, had family incomes in excess of $15,000 during the previous year. While it seems unusual that anyone with a family income in excess of $15,000 would be covered by Medicaid, there are a number of ways in which such an event could legitimately occur. First, information in HIS is collected on the previous year's income. Family dissolution or catastrophic illness could have intervened, causing Medicaid eligibility. Second, in certain States large families with incomes in

excess of $15,000 could qualify for Medicaid coverage.

The same pattern of inverse relation was apparent for education. Approximately 7 percent of persons with 0-11 years of education were covered by Medicaid, compared with 1 percent of those with 13 years or more of education.

Substantial differences between places of residence and among regions of the country were found with respect to Medicaid coverage. Approximately 1 out of 10 residents of central cities within SMSA's were covered by Medicaid only, while less than 1 out of 50 persons who lived on farms outside of SMSA's were so covered. Approximately 7 percent of persons in the Northeast Region were covered by Medicaid only, compared with approximately 5 percent in the North Central and South Regions.

Further, there were some differences in the proportion of persons covered by Medicaid with respect to utilization of services. For persons who saw a physician during the year, 6.2 percent were covered by Medicaid only, while 4.6 percent who did not see a physician were so covered. Medicaid coverage with respect to occupation and industry revealed that, as expected, few workers are covered by the Medicaid program only. One exception to this observation occurred with private household workers. Approximately 9 percent were covered by Medicaid only. Further, 9.0 percent of persons not in the labor force were covered by Medicaid only.

Other Types of Coverage

Other plans or programs only.—Other programs are defined herein as CHAMPUS, CHAMPVA, professional courtesy, and private surgical insurance only. Approximately 5 million persons, or approximately 2 percent of the civilian noninstitutionalized population, were covered by these programs only. Questionnaire design prevents an estimate of the number of persons covered under these programs regardless of other coverage. The extent of coverage under these programs alone was not large for any subgroup in the population. However, this type of coverage was most concentrated among persons under 6 years of age, persons in families with incomes of $7,000-$9,999, persons in the South Region, and persons employed in public administration.

Private hospital insurance only, but don't know coverage.—Persons in this category did not constitute more than 1 percent of the population in any category of any of the standard social and economic variables presented in this report. These persons, however, are defined as insured.

No other coverage; don't know if covered by private hospital insurance.—Persons included in this category did not constitute more than 1 percent of the population in any category of any of the standard social and economic variables presented in this report. These persons have been considered neither insured nor uninsured.

Summary

The type and extent of the population's health insurance coverage is presented in this report according to standard social and demographic characteristics. Every effort has been made to insure that multiple coverage does not affect the estimates of the uninsured population shown in tables 1, 3, and 4. For that reason, the size of the population enrolled in certain public programs as reported in tables 1, 3, and 4 is less than the total enrollment reported by those programs. Estimates of the uninsured are presented which are not affected by the common practice of counting each enrollment in a public or private plan as a different insured person. Thus the figure for coverage under public programs, presented in table 1, may be interpreted as the extent to which these programs covered persons who would otherwise be completely uncovered. This interpretation is particularly appropriate for persons under 65 years of age. Table 2 presents estimates of coverage under major private or public plans or programs regardless of multiple coverage. These estimates reflect the total number of persons enrolled in each program and are discussed relative to other estimates of coverage.

TECHNICAL NOTES

SOURCE OF DATA

The data presented in all tables in this report were derived from household interviews of the Health Interview Survey. These interviews were conducted in a probability sample of the civilian noninstitutionalized population of the United States. During 1976 approximately 113,000 persons living in a total of 40,000 households were included in the sample. A more detailed description of the sample design and a copy of the questionnaire used in collecting the health insurance data are shown in "Current Estimates from the Health Interview Survey, United States, 1976," *Vital and Health Statistics*, Series 10, No. 119.

SAMPLE

Since the estimates shown are based on a sample of the population, they are subject to sampling error. For example, table I shows the standard errors appropriate for the percent of persons with hospital or surgical insurance coverage.

Table I. Standard errors, expressed in percentage points, of estimated percentages

Base of percentage in thousands	Estimated percentages				
	2 or 98	5 or 95	10 or 90	25 or 75	50
500	1.1	1.8	2.4	3.5	4.0
1,000	0.8	1.2	1.7	2.5	2.9
2,000	0.6	0.9	1.2	1.8	2.0
5,000	0.4	0.6	0.8	1.1	1.3
10,000	0.3	0.4	0.5	0.8	0.9
20,000	0.2	0.3	0.4	0.6	0.6
30,000	0.1	0.2	0.3	0.5	0.5
50,000	0.1	0.2	0.2	0.4	0.4

DEFINITIONS OF TERMS

Persons were considered to be covered by *private hospital insurance* if they specifically affirmed that such coverage existed.

Persons were considered to be covered by *Medicare* if they were 65 years of age or older and explicity affirmed Medicare coverage or if they responded that their main reason for having no insurance was Medicare. Both older persons and persons covered under Medicare disability and end-stage renal disease provisions are counted.

Persons counted as covered under the *Medicaid* program included those who reported receipt of services paid by Medicaid during the past year or no receipt of such services during the past year but eligibility for such payment under Aid to Families with Dependent Children or Supplemental Security Income. Further, persons who reported Medicaid as their main reason for no insurance but did not report receipt of services under Medicaid during the past year or coverage under Supplemental Security Income or Aid to Families with Dependent Children were also counted in the Medicaid coverage category.

Persons counted as covered under *other plans or programs* reported that their main reason for no insurance was the Civilian Health and Medical Program for Veterans Administration (CHAMPVA), the Civilian Health and Medical Program for Uniformed Services (CHAMPUS), professional courtesy, or private surgical insurance.

Persons counted as covered under *private hospital insurance only, but don't know what plan covers* specifically affirmed that they were covered by private hospital insurance but did not know whether the plan paid for hospital costs or hospital physician fees. These persons reported no other coverage.

Persons included under *no other coverage; don't know if covered by private hospital insurance* were included under no public or private plan or program for health care coverage. However, they responded that they did not know if they were covered by private hospital insurance. Because of this group's lack of knowledge concerning its private hospital insurance coverage, it is defined as neither insured nor uninsured but rather as "don't know."

Health care coverage is any plan or program specifically designed to pay all or part of the medical or hospital expenses of a covered individual. In the case of insurance, coverage can be provided through either a group or an individual policy with the premium paid by the individual, his employer, a third party, or a combination of these. Benefits received under such

plans can be in the form of payment to the individual or to the hospital or doctor. The plan, however, must be a formal one with defined membership and benefits rather than an informal one. For example, an employer's simply paying the hospital bill for an employee would not constitute a health insurance plan. Plans for free care or highly subsidized care available to categorical groups such as Medicare, Medicaid, public assistance, or public welfare; care given free of charge to veterans; care given under the Uniformed Services Dependents Medical Care Program; and professional courtesy are specifically defined herein as health care coverage.

For this report, utilizing information from HIS, health care coverage excludes the following kinds of plans: (1) plans limited to the "dread diseases" such as cancer or polio; (2) care given under the Crippled Children's Program or similar programs and care of persons admitted to an institution for research purposes; (3) insurance which pays bills only for accidents, such as liability insurance that covers children for accidents at school or camp and insurance for a worker that covers him only for accidents, injuries, or diseases incurred on the job; and (4) insurance which pays only for loss of income.

SYMBOLS

Data not available	- - -
Category not applicable	. . .
Quantity zero	-
Quantity more than 0 but less than 0.05	0.0
Figure does not meet standards of reliability or precision	*

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FROM VITAL & HEALTH STATISTICS OF THE NATIONAL CENTER FOR HEALTH STATISTICS
U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE • Public Health Service | Number 45 • February 7, 1979

Use of Family Planning Services by Currently Married Women 15-44 Years of Age: United States, 1973 and 1976[1]

About 13,300,000 currently married women received professional family planning services during the 3 years before the 1976 National Survey of Family Growth, an increase of about 1 million, or 8 percent, above the number who made a family planning visit in the 3 years before a similar survey conducted in 1973.

Among fecund, or nonsterile, couples about 57.9 percent made a family planning visit in the 3-year period prior to the 1976 survey as compared with 51.2 percent in the 3-year period prior to 1973.

Among wives who reported making a family planning visit in the 3 years before the 1976 survey, a large majority (84 percent) reported their most recent visit was with their own physician, while a minority (16 percent) indicated the last visit was with an organized medical service. These figures are not significantly different from the comparable figures for 1973.

The statistics on use of family planning services are from the National Survey of Family Growth, Cycles I and II, conducted by the National Center for Health Statistics. Data were collected through personal interviews with a multistage, probability sample of women in the household population of the conterminous United States. Women 15-44 years of age, inclusive, who were currently married or previously married or who were never married but had offspring presently living in the household were eligible for inclusion in the sample.

The interview was highly focused on the respondent's marital and pregnancy histories, on the use of contraception and the planning status of each pregnancy, on the respondent's intentions regarding number and spacing of future births, on maternal and family planning services, and on a broad range of socioeconomic characteristics.

For Cycle I, 3,856 black women and 5,941 women of races other than black were interviewed between June 1973 and February 1974. For Cycle II, 3,009 black women and 5,602 women of other races were interviewed between January and September of 1976. The numbers of black women and women of other races interviewed in Cycle II were revised for this report and differ slightly from the numbers reported in *Advance Data* Numbers 36 and 40. The revisions do not affect any other statistics reported here or previously mentioned. Because the estimates of statistics in this report are based on a sample, they are subject to sampling variability. A further discussion of sampling variability and of the design of the survey and definitions of terms can be found in the Technical Notes.

Detailed findings on use of family planning services from Cycle I of the National Survey of Family Growth are reported in an earlier report.[2]

This report presents preliminary findings from Cycle II, with comparisons to findings from Cycle I; it will be followed by a detailed report of findings from Cycle II in Series 23 of *Vital and Health Statistics*.

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[1]This report was prepared by Gerry E. Hendershot, Ph.D., Division of Vital Statistics.

[2]National Center for Health Statistics: Utilization of family planning services by currently married women 15-44 years of age, United States, 1973, by F. Notzon. *Vital and Health Statistics*. Series 23-No. 1. DHEW Pub. No. (PHS)78-1977. Public Health Service. Washington. U.S. Government Printing Office, Nov. 1977.

Statistics used include only women who were fecund 3 years before the interview date. Consultations about problems of infertility are not included in the definition of family planning services for purposes of this report. A woman was considered to be sterile if she reported it was impossible for her and her husband to conceive as a result of an operation, accident, or illness which occurred more than 3 years before the interview—before January 1970 for Cycle I, or before January 1973 for Cycle II. All other women were considered to be fecund, able to conceive, at the beginning of the period for which their use of family planning services was reported.

Table 1 shows the number of currently married, fecund women 15-44 years of age classified by race or ethnicity, poverty level income, and age and the percents in each group who reported a family planning visit in the 3 years before the survey in 1976 or 1973, by type of place of the last visit.

Table 2 includes only wives who reported a visit in the 3 years before each survey and shows their numbers by race or ethnicity, poverty level income, and age and the percent distribution of each group by type of place of last family planning visit.

The percent of fecund wives reporting a family planning visit increased between 1973 and 1976 among white women but did not change significantly in the other racial or ethnic groups considered. In both years, white wives were more likely than black wives or wives of Hispanic origin to report a visit, although the differences between white and Hispanic women are not statistically significant. In 1976 the percents were 59.2 for white women, 51.4 for women of Hispanic origin, and 46.2 for black women.

In all three racial or ethnic groups, wives with a visit were more likely to have had the last visit with their own physician than with an organized medical service in both 1976 and 1973. In both years, however, organized medical services had a larger share of last visits among black wives (37.0 percent of last visits in 1976) and wives of Hispanic origin (32.7 percent in 1976) than among white wives (14.1 percent in 1976).

The share of last visits to organized medical services did not change significantly in any of the three racial or ethnic groups. However, the decline among black wives from 42.2 percent in 1973 to 37.0 percent in 1976 approaches statistical significance, and is consistent with trends in methods of contraception—increasing percents of black women are using traditional methods such as the condom and the diaphragm, which are less likely than other methods to be obtained from organized medical services. (For further discussion of these trends, see *Advance Data* No. 36, "Contraceptive Utilization in the United States, 1973 and 1976.")

The percent reporting a family planning visit increased between 1973 and 1976 among women whose family income was 150 percent or more of the poverty level and among women whose family income was below that level. In neither 1973 nor 1976 was there a significant difference between the two income groups in the percent reporting a visit.

There was a difference between the income groups, however, in the place of last family planning visit (figure 1): among the poorer women, about one-third (33.5 percent in 1976) of women with a visit had the last visit with an

Figure 1. PERCENT OF CURRENTLY MARRIED FECUND WOMEN 15-44 YEARS OF AGE WITH A FAMILY PLANNING VISIT IN THE LAST 3 YEARS WHOSE LAST VISIT WAS WITH AN ORGANIZED MEDICAL SERVICE, BY POVERTY LEVEL INCOME: UNITED STATES, 1973 AND 1976

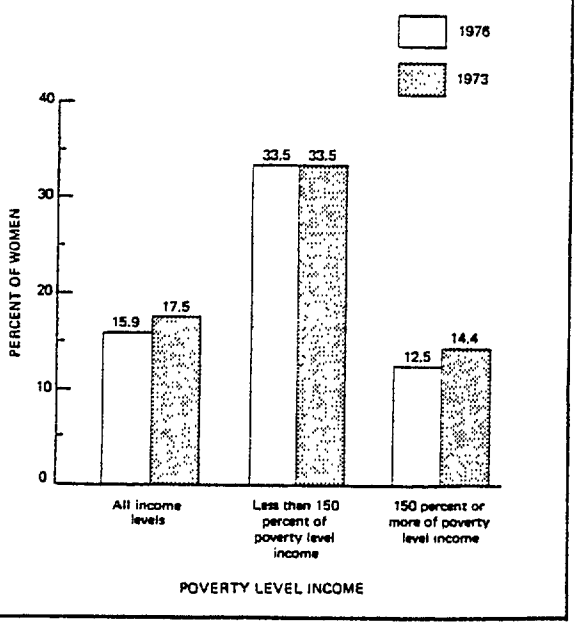


Table 1. Number of currently married fecund women 15-44 years of age and percent with a family planning visit in the last 3 years, by place of most recent family planning visit, race or ethnicity, poverty level income, and age: United States, 1973 and 1976

Race or ethnicity, poverty level income, and age	1976				1973			
	Number of women in thousands	With family planning visit in last 3 years			Number of women in thousands	With family planning visit in last 3 years		
		Total	Own physician	Organized medical services		Total	Own physician	Organized medical services
		Percent				Percent		
RACE OR ETHNICITY AND AGE								
Total								
All ages 15-44 years	22,923	57.9	48.7	9.2	23,863	51.2	42.2	9.0
15-24 years	5,978	75.6	58.0	17.6	5,953	75.5	58.5	17.0
15-19 years	1,042	76.5	48.8	27.7	1,028	69.6	50.5	19.1
25-34 years	10,869	61.4	54.1	7.3	10,797	54.5	47.0	7.6
35-44 years	6,076	34.0	29.6	4.5	7,113	25.8	21.5	4.3
White								
All ages 15-44 years	20,553	59.2	50.8	8.3	21,711	51.9	43.8	8.1
15-24 years	5,379	77.2	61.1	16.0	5,361	76.9	61.1	15.8
15-19 years	918	77.5	50.7	26.8	915	71.8	54.1	17.7
25-34 years	9,778	62.8	56.2	6.6	9,873	55.4	48.6	6.8
35-44 years	5,396	34.7	30.8	3.9	6,478	25.9	22.4	3.5
Black								
All ages 15-44 years	1,896	46.2	29.1	17.1	1,868	44.1	25.5	18.6
15-24 years	500	60.1	31.5	28.6	546	61.9	33.4	28.4
15-19 years	98	70.7	45.5	*25.2	96	47.4	*16.1	31.4
25-34 years	846	48.3	33.3	15.0	784	46.5	30.7	15.8
35-44 years	550	30.3	20.3	10.1	539	22.6	9.9	12.7
Hispanic origin[1]								
All ages 15-44 years	1,519	51.4	34.6	16.8	1,504	48.1	30.9	17.2
15-24 years	465	57.0	32.7	24.3	412	66.6	48.4	18.2
15-19 years	91	*42.0	*9.4	*32.5	96	49.1	*30.9	*18.2
25-34 years	679	59.1	41.2	17.9	563	54.1	33.6	20.5
35-44 years	375	30.7	25.4	*5.2	529	27.3	14.3	13.0
POVERTY LEVEL INCOME AND AGE								
149 percent of poverty income and below								
All ages 15-44 years	3,001	57.7	38.4	19.3	3,693	52.6	35.0	17.6
15-24 years	1,075	76.2	44.7	31.5	1,198	72.8	46.0	26.8
15-19 years	299	69.8	24.9	44.9	285	66.2	41.8	24.3
25-34 years	1,257	53.5	40.4	13.1	1,510	52.3	38.0	14.3
35-44 years	669	35.8	24.3	*11.5	986	28.7	17.1	11.6
150 percent of poverty income and above								
All ages 15-44 years	17,513	59.8	52.3	7.5	20,170	50.9	43.6	7.3
15-24 years	4,345	78.0	63.8	14.2	4,755	76.2	61.7	14.5
15-19 years	595	82.2	61.9	20.2	743	71.0	53.9	17.1
25-34 years	8,501	63.9	57.5	6.4	9,287	54.9	48.4	6.5
35-44 years	4,667	35.3	32.0	3.3	6,128	25.3	22.2	3.1

[1]Includes all women reporting any Hispanic origin, regardless of race or other ethnic origins reported.

Table 2. Number of currently married fecund women 15-44 years of age with a family planning visit in the last 3 years and percent distribution by place of most recent family planning visit, according to race or ethnicity, poverty level income, and age: United States, 1973 and 1976

Race or ethnicity, poverty level income, and age	1976				1973			
	Number of women with visit in thousands	Place of visit			Number of women with visit in thousands	Place of visit		
		Total	Own physician	Organized medical services		Total	Own physician	Organized medical services
		Percent distribution				Percent distribution		
RACE OF ETHNICITY AND AGE								
Total								
All ages 15-44 years--	13,262	100.0	84.1	15.9	12,216	100.0	82.5	17.5
15-24 years----------	4,520	100.0	76.8	23.2	4,493	100.0	77.5	22.5
15-19 years----------	797	100.0	63.8	36.2	716	100.0	72.6	27.4
25-34 years----------	6,674	100.0	88.1	11.9	5,889	100.0	86.1	13.9
35-44 years----------	2,069	100.0	86.9	13.1	1,833	100.0	83.3	16.7
White								
All ages 15-44 years--	12,164	100.0	85.9	14.1	11,268	100.0	84.5	15.5
15-24 years----------	4,152	100.0	79.2	20.8	4,122	100.0	79.4	20.6
15-19 years----------	711	100.0	65.4	34.6	657	100.0	75.4	24.6
25-34 years----------	6,139	100.0	89.4	10.6	5,469	100.0	87.6	12.4
35-44 years----------	1,873	100.0	88.7	11.3	1,676	100.0	86.7	13.3
Black								
All ages 15-44 years--	875	100.0	63.0	37.0	824	100.0	57.8	42.2
15-24 years----------	300	100.0	52.4	47.6	338	100.0	54.0	46.0
15-19 years----------	69	100.0	64.4	*35.6	45	100.0	*33.9	66.1
25-34 years----------	408	100.0	69.0	31.0	364	100.0	66.0	34.0
35-44 years----------	167	100.0	66.8	33.2	122	100.0	43.9	56.1
Hispanic origin[1]								
All ages 15-44 years--	782	100.0	67.3	32.7	724	100.0	64.2	35.8
15-24 years----------	265	100.0	57.3	42.7	275	100.0	72.7	27.3
15-19 years----------	38	100.0	*22.5	77.5	47	100.0	62.9	*37.1
25-34 years----------	401	100.0	69.7	30.3	304	100.0	62.1	37.9
35-44 years----------	115	100.0	82.9	*17.1	145	100.0	52.3	47.7
POVERTY LEVEL INCOME AND AGE								
149 percent of poverty income and below								
All ages 15-44 years--	1,731	100.0	66.5	33.5	1,944	100.0	66.5	33.5
15-24 years----------	819	100.0	58.7	41.3	872	100.0	63.2	36.8
15-19 years----------	209	100.0	35.7	64.3	189	100.0	63.2	36.8
25-34 years----------	672	100.0	75.5	24.5	790	100.0	72.6	27.4
35-44 years----------	240	100.0	67.9	32.1	283	100.0	59.6	40.4
150 percent of poverty income and above								
All ages 15-44 years--	10,469	100.0	87.5	12.5	10,272	100.0	85.6	14.4
15-24 years----------	3,388	100.0	81.8	18.2	3,622	100.0	81.0	19.0
15-19 years----------	489	100.0	75.4	24.6	527	100.0	75.9	24.1
25-34 years----------	5,435	100.0	90.0	10.0	5,099	100.0	88.2	11.8
35-44 years----------	1,646	100.0	90.6	9.4	1,551	100.0	87.6	12.4

[1]Includes all women reporting any Hispanic origin, regardless of race or other ethnic origins reported.

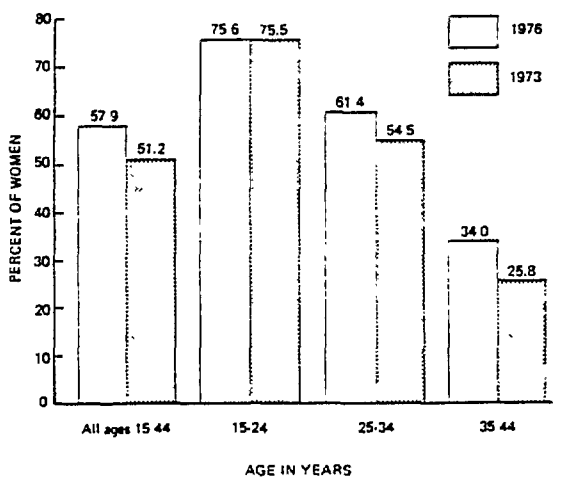
organized medical service, but among the women with higher income, only 1 in 8 (12.5 percent in 1976) had the last visit with an organized medical service. (See the Technical Notes for a discussion of limitations to comparing 1973 and 1976 income data.)

The percents of women reporting a family planning visit in the last 3 years vary with age, women aged 15-24 years being most likely to report a visit and women aged 35-44 years being least likely (figure 2). The pattern, which is observed in both survey years and most racial, ethnic, and income groups, may reflect a decline in women's need for services as they gain experience and grow older, the differential impact of recent growth in service programs for younger women just beginning to plan their families, or the departure of older women from the fecund population needing services by means of sterilizing operations.

Whatever the explanation for age differences in use of family planning services, differences were reduced between 1973 and 1976; in that period use of services increased in age groups 25-44 years, but it did not change significantly among women aged 15-24 years, narrowing the gap between them (table 1).

Age differences in the distribution of last visits by type of place are less pronounced; in both age groups 25-34 years and 35-44 years about 1 in 8 last visits were to an organized medical service in 1976, about the same as in 1973. In the age group 15-24 years, also, the percent of the last visits which were to organized medical services was unchanged between 1973 and 1976, but at a higher level, more than 1 in 5.

Figure 2. PERCENT OF CURRENTLY MARRIED FECUND WOMEN 15-44 YEARS OF AGE WITH A FAMILY PLANNING VISIT IN THE LAST 3 YEARS, BY AGE: UNITED STATES, 1973 AND 1976



Because of recent interest in family planning among teenagers, the statistics in tables 1 and 2 are shown separately for women aged 15-19 years. However, these data include only women who were married at the time of the interview; therefore many teenage women who were users, or potential users, of family planning services are not included. Also, the numbers of sample women in this age group are small, so statistics estimated from them are less reliable than other statistics in this report.

An earlier report by Jaffe and Dryfoos indicated that teenagers' use of family planning, especially from organized medical services, increased in the period 1973-1975.[3] In preparing this report, it was anticipated that the trend continued into 1976 and would be reflected in comparisons of statistics from Cycles I and II of the National Survey of Family Growth. It was found that the proportion of teenage wives reporting a family planning visit in the 3-year period before the interview increased from 69.6 percent to 76.5 percent between 1973 and 1976. The trend toward greater use of family planning services occurred among both black and white teenage wives but was stronger among black women, among whom the percent reporting a visit increased from 47.4 in 1973 to 70.7 in 1976.

Like other women, most teenage wives reported their last family planning visit was with their own physician (63.8 percent in 1976); however, organized services' share of last visits by teenage wives was substantial and increasing —from 27.4 percent in 1973 to 36.2 percent in 1976. This trend is observed for white teenagers and for teenagers with family income below 150 percent of the poverty level; for other groups of teenage wives the differences between 1973 and 1976 in the share of last visits held by organized services are not statistically significant.

[3] Jaffe, F.S., and Dryfoos, J.G.: Fertility control services for adolescents, access and utilization. *Fam. Plann. Perspect.* 8(4): 167-175, July-Aug. 1976.

TECHNICAL NOTES

The Survey Design

The National Survey of Family Growth (NSFG) was designed to provide data on fertility, family planning, and related aspects of maternal and child health. Fieldwork for Cycle I was carried out by the National Opinion Research Center between June 1973 and February 1974. Fieldwork for Cycle II was carried out by Westat, Inc., between January and September of 1976.

A multistage probability sample of women in the household population of the conterminous United States was used in both cycles. Each time, approximately 33,000 households were screened to identify the sample of women who would be eligible for the NSFG, i.e., women aged 15-44 years, inclusive, who were either currently married, previously married, or never married but had offspring presently living in the household. In households with more than one eligible woman, a random procedure was used to select only one to be interviewed. Since the interviews were always conducted with the sample person, the term "respondent" is used as synonymous with sample person. For Cycle I, interviews were completed with 3,856 black women and 5,941 women of races other than black. For Cycle II, interviews were completed with 3,009 black women and 5,602 women of other races. A detailed description of the sample design for Cycle I is presented in "National Survey of Family Growth, Cycle I: Sample Design, Estimation Procedures, and Variance Estimation," Series 2, No. 76, in the *Vital and Health Statistics* series. A similar report is in preparation for Cycle II.

The interview was highly focused on the respondent's marital and pregnancy histories, on the use of contraception and the planning status of each pregnancy, on the respondent's intentions regarding the number and spacing of future births, on maternal and family planning services, and on a broad range of socioeconomic characteristics. While the interviews varied greatly in the time required for their completion, they averaged about 70 minutes for Cycle I and about 58 minutes for Cycle II.

Quality control procedures were applied at all stages of the survey. These included a verification of listing completeness with unlisted dwelling units being brought into the sample, a preliminary field review of completed questionnaires for possible missing data or inaccurate administration, a 10-percent sample recheck of all households to be screened in the survey, observation of interviews in the field, and an independent recoding of a 5-percent subsample of completed interviews.

Reliability of Estimates

Since the statistics presented in this report are based on a sample, they may differ somewhat from the figures that would have been obtained if a complete census had been taken using the same questionnaires, instructions, interviewing personnel, and field procedures. This chance difference between sample results and a complete count is referred to as sampling error. In addition, the results are also subject to nonsampling error due to respondent misreporting, data processing mistakes, and nonresponse. It is very difficult, if not impossible, to obtain accurate measures of nonsampling errors. These types of error were kept to a minimum by the quality control procedures and other methods incorporated into the survey design and administration.

Sampling error, or the extent to which samples may differ by chance from a complete count, is measured by a statistic called the standard error of estimate. Approximate standard errors for estimated numbers and percents from Cycle I are shown in tables I and II for white women and women of all races combined and in tables III and IV for the black population. Provisional estimates of standard errors for Cycle II for white women and women of all races combined can be obtained by multiplying the standard errors for these women from Cycle I by factors of 1.09 for the latter and 1.06 for white women. Similarly, provisional estimates of standard errors for Cycle II for black women can be obtained by multiplying the standard errors for black women from Cycle I by a factor of 1.14.

Table I. Approximate standard errors for estimated numbers for white women and women of all races combined: 1973 National Survey of Family Growth

Size of estimate	Relative standard error	Standard error
50,000	30.0	15,000
100,000	21.2	21,000
200,000	15.0	30,000
500,000	9.5	47,000
1,000,000	6.7	67,000
2,000,000	4.8	95,000
5,000,000	3.0	151,000
10,000,000	2.2	216,000
20,000,000	1.5	311,000

Table III. Approximate standard errors for estimated numbers for black women: 1973 National Survey of Family Growth

Size of estimate	Relative standard error	Standard error
25,000	25.3	6,000
50,000	17.9	9,000
100,000	12.7	13,000
150,000	10.3	16,000
250,000	8.0	20,000
350,000	6.8	24,000
500,000	5.7	28,000
750,000	4.7	35,000
1,000,000	4.0	40,000

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 differences between the sample estimate and a complete count would be less than twice the standard error. The relative standard error is the ratio of the standard error to the statistic being estimated. In this report, numbers and percents which have a standard error that is more than 25 percent of the estimate itself are considered unreliable. They are marked with an asterisk to caution the user but may be combined to make other types of comparisons of greater precision.

In this report, terms such as "similar" and "the same" mean that any observed difference between two estimates being compared is not statistically significant. Similarly, terms such as "greater," "less," "larger," and "smaller," indicate that the observed differences are statistically significant. The normal deviate test with a .05 level of significance was used to test all comparisons which are discussed in the text. A statistically significant difference is one large enough that in repeated samples of the same size and type as this one such a large difference would be expected to be found in less than 5 percent of the samples. Lack of comment in the text between any two statistics does *not* mean the difference was tested and found not to be significant.

Adjustment for nonsampling error due to nonresponse was made in two ways. Nonrespondent cases, as distinct from missing data items, were imputed by weighting for nonresponse within each primary sampling unit, stratum, and age-race category. In the 1973 survey, codes for missing items were imputed for

Table II. Approximate standard errors for estimated percents expressed in percentage points for white women and women of all races combined: 1973 National Survey of Family Growth

Base of percent	Estimated percent						
	2 or 98	5 or 95	10 or 90	20 or 80	30 or 70	40 or 60	50
100,000	3.0	4.6	6.4	8.5	9.7	10.4	10.6
500,000	1.3	2.1	2.8	3.8	4.3	4.6	4.7
1,000,000	0.9	1.5	2.0	2.7	3.1	3.3	3.3
3,000,000	0.5	0.8	1.2	1.5	1.8	1.9	1.9
5,000,000	0.4	0.6	0.9	1.2	1.4	1.5	1.5
7,000,000	0.3	0.5	0.8	1.0	1.2	1.2	1.3
10,000,000	0.3	0.5	0.6	0.8	1.0	1.0	1.1

Table IV. Approximate standard errors for estimated percents expressed in percentage points for black women: 1973 National Survey of Family Growth

Base of percent	Estimated percent						
	2 or 98	5 or 95	10 or 90	20 or 80	30 or 70	40 or 60	50
5,000	7.9	12.3	17.0	22.6	25.9	27.7	28.3
10,000	5.6	8.7	12.0	16.0	18.3	19.6	20.0
50,000	2.5	3.9	5.4	7.1	8.2	8.8	8.9
100,000	1.8	2.7	3.8	5.1	5.8	6.2	6.3
300,000	1.0	1.6	2.2	2.9	3.3	3.6	3.6
500,000	0.8	1.2	1.7	2.3	2.6	2.8	2.8
700,000	0.7	1.0	1.4	1.9	2.2	2.3	2.4
1,000,000	0.6	0.9	1.2	1.6	1.8	2.0	2.0

each woman by assigning the reported value of a case randomly selected from among women with similar characteristics. In the 1976 survey, for this report, cases with missing data are allocated among the cells of a table in proportion to the distribution of known cases with the same characteristics.

DEFINITIONS OF TERMS

Family planning visit in the last 3 years.—In Cycle II, women were considered to have made a family planning visit in the last 3 years if they answered affirmatively to the question "During the last 3 years, has a doctor or other trained person prescribed or talked with you about a method for delaying or preventing pregnancy?" In Cycle I, women were asked the same question except that a period of 5 years was specified rather than 3 years. Women who answered affirmatively to that question were also asked, "When was the last time you talked about methods of family planning with a doctor or trained person?" Women who answered that question with a date less than 3 years before the interview were considered to have made a family planning visit in the last 3 years.

Place of last family planning visit.—Women with a family planning visit in the last 3 years were asked where the last (most recent) visit took place. "Own physician" includes visits of the respondent with her own physician, whether in the physician's office or in a hospital; it includes group practices and prepaid medical organizations. "Organized medical services" includes visits to all other places: general clinics, family planning clinics, hospitals, or elsewhere. Place of last family planning visit was not ascertained for about 1 percent of women with a visit in Cycle I and about 5 percent in Cycle II; cases without place information were allocated to place categories in proportion to the distribution of similar cases with complete place information.

Age.—Age is classified by the age of the respondent at her last birthday before the date of interview.

Race.—Classification by race was based on interviewer observation and was reported as black, white, or other. Race refers to the race of the woman interviewed.

Hispanic origin.—A respondent was classified as being of Hispanic origin if she reported her origin or descent as Mexicano, Chicano, Mexican American, Puerto Rican, Cuban, or other Spanish, regardless of whether she also mentioned any other origin.

In tables where data are presented for women according to race and Hispanic origin, women of Hispanic origin are included in the statistics for white and black women if they were identified as such by the interviewer.

Marital status.—Persons are classified by marital status as married, widowed, divorced, separated, or never married. Married persons include those who report themselves as married or as informally married (living with a partner or common-law spouse and the like). Persons who are temporarily separated for reasons other than marital discord, such as vacation, illness, or Armed Forces, are classified as married.

Fecundity.—For this report, a woman was considered to be sterile if she reported it was impossible for her and her husband to conceive as a result of an operation, accident, or illness which occurred more than 3 years before the interview—before January 1970 for Cycle I, or before January 1973 for Cycle II. All other women were considered to be fecund, able to conceive, at the beginning of the period for which their use of family planning services was reported.

Poverty level.—The poverty index ratio was calculated by dividing the total family income by the weighted average threshold income of nonfarm families with the head under 65 years of age based on the poverty levels shown in U.S. Bureau of the Census *Current Population Reports*, Series P-60, No. 106, "Money Income in 1975 of Families and Persons in the United States, " table A-3 (for Cycle II), and No. 98, "Characteristics of the Low-Income Population, 1973," table A-3 (for Cycle I). This definition takes into account the sex of the family head and the number of persons in the family. Total family income includes income from all sources for all members of the respondent's family. For substantial numbers of respondents (7 percent in Cycle I and 16 percent in Cycle II), total family income was not ascertained. In Cycle I, values

were imputed where missing, using a known value of another similar, randomly selected respondent; in Cycle II, however, missing values of family income were not imputed, and only cases with known values are included in statistics on poverty income level. Because of this difference, estimates of aggregate numbers in categories of poverty income level cannot be compared between the two surveys; percents may be compared, but such comparisons may be affected by the differences in imputation procedures in the two surveys.

Household population.—The household population consists of persons living in households. A household is a person or a group of persons, provided no more than five are unrelated to the head of the household, who occupy a room or group of rooms intended as separate living quarters; that is, the occupants do not live and eat with any other persons in the structure, and there is either (1) direct access from the outside of the building or through a common hall or (2) complete kitchen facilities for the exclusive use of the occupants of the household.

RELATED DATA

Data on family planning services are also collected in two other surveys conducted by the National Center for Health Statistics. Data for the National Ambulatory Medical Care Survey come from reports from a sample of office-based physicians; data for the National Reporting System for Family Planning Services come from a sample of medical organizations which provide family planning services. Whereas these data systems use information from the providers of family planning services, the National Survey of Family Growth uses information from recipients of the services. Because of this difference and differences in collection procedures and definitions of terms, statistics on family planning visits from the three data systems may differ.

SYMBOLS

Data not available	...
Category not applicable	...
Quantity zero	-
Quantity more than 0 but less than 0.05	0.0
Figure does not meet standards of reliability or precision	*

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FROM VITAL & HEALTH STATISTICS OF THE NATIONAL CENTER FOR HEALTH STATISTICS
U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE • Public Health Service | Number 46 • January 26, 1979

Hemoglobin and Selected Iron-Related Findings of Persons 1-74 Years of Age: United States, 1971-74[a]

This report presents selected findings of the hemoglobin, serum iron, and percent transferrin saturation determinations collected in the Health and Nutrition Examination Survey (HANES). The serum iron and transferrin saturation results supersede all previously published results.[1,2]

HANES is a program of the National Center for Health Statistics in which measures of nutritional status are collected for a scientifically designed sample representative of the civilian noninstitutionalized population of the United States aged 1-74 years.[3]

The data collected from April 1971 through June 1974 are based on the examination of 20,749 persons from a total of 28,043 persons aged 1-74 years who were selected in the national probability sample to represent the 194 million persons in that age group in the civilian noninstitutionalized population. This was a response rate of 74 percent or an effective response rate of 75 percent when adjustment is made for the effect of oversampling among the poor, preschool children, women of childbearing age, and the elderly.

Detailed estimates of the distributions of iron-related measurements and the prevalence and distribution of iron deficiency anemia in the United States will be described in a forthcoming report[4] in Series 11 of the *Vital and Health Statistics.*

Blood specimens were collected primarily by using venipuncture procedures. When these procedures were unsuccessful, a finger stick technique was used to obtain blood samples from which the hematological determinations could be made. For children aged 1-3 years, a large proportion of the specimens were collected by the finger stick technique. The numbers of blood specimens collected by this technique for persons aged 3 years and over were very small.

All hemoglobin concentrations for HANES were determined on the Coulter Hemoglobinometer in the mobile examination center. The procedure is based on the hemoglobincyanide (cyanmethemoglobin, HbCN) principle.[5] Serum iron and total iron-binding capacity determinations were made by the Nutritional Biochemistry Section, Clinical Chemistry Division, Bureau of Laboratories, Center for Disease Control, Atlanta, Ga. The analytical method was a modification of the Technicon AutoAnalyzer II-25 method based on the procedures of Giovanniello, *et al.* and Ramsey.[5]

Following the publication of the "Preliminary Findings of the First Health and Nutrition Examination Survey, United States, 1971-1972: Dietary Intake and Biochemical Findings,"[1] a different analytical method for measuring serum iron and total iron-binding capacity[5] was adopted for the remainder of HANES. Although based on the same analytical principles applied in the original method of White and Flaschka,[6] the AutoAnalyzer method includes a dialysis procedure. A comparison study of the original and the AutoAnalyzer methods revealed unacceptable variability in the iron and total iron-binding capacity results obtained with the original method. For persons whose sera were processed using the original method, portions of

[a]This report was prepared by Clifford L. Johnson, M.S.P.H. and Sidney Abraham, Division of Health Examination Statistics.

the same serum specimens were taken from a reserve vial collection stored at -20° C and were reanalyzed by the AutoAnalyzer method between December 1974 and May 1975. As previously noted, these data for serum iron and transferrin saturation results supersede all previously published results.[1,2]

Except for children aged 1-3 years, a sufficient number of serum iron and percent transferrin measurements are available for presenting results for all persons 4-74 years of age. The number of missing measurements for children aged 1-3 years was large. Although results are presented, no attempt was made to analyze the data on persons of these ages because of possible bias due to the missing values. The number of missing hemoglobin concentrations was small for all age groups, and results are analyzed for all persons aged 1-74 years.

PRINCIPAL FINDINGS

Hemoglobin

The mean hemoglobin level for males increased with age from 11.9 g/dl at age 1 year to 15.8 g/dl at ages 18-19 years. It remains fairly constant at ages 18-54 years and declines slightly at the older ages to a value of 15.3 g/dl at ages 65-74 years (table 1, figure 1).

A different pattern was observed for females, where the mean hemoglobin level increased with age from 12.0 g/dl at age 1 year to a maximum value of 14.1 g/dl at ages 55-64 years. Then the level dipped slightly to 14.0 g/dl in the age group 65-74 years (table 2, figure 1).

The differences in mean hemoglobin level for males and females increased with age. For example, the differences at ages 1-11 years were small—ranging from 0.0 to 0.2 g/dl (tables 1 and 2). However, at ages 12 years and over the mean hemoglobin levels for males were consistently higher than those for females. These differences ranged from 1.0 g/dl at ages 12-17 years to 2.2 g/dl at ages 18-24 years (tables 1 and 2).

The hemoglobin pattern observed previously for the total male population aged 1-74 years was similar to the ones observed for white males and black males separately (table 1, figure 2). Mean levels generally increased with age to ages 18-19 years, remained reasonably constant to ages 45-54 years, and then declined at ages 55-74 years.

The age-hemoglobin pattern for the female population was similar in all three categories—all races, white females, and black females. For example, the pattern for white females was similar to the pattern observed for the total female population, generally increasing from 12.0 g/dl at age 1 year to 14.2 g/dl at ages 55-64 years, and declining slightly to 14.1 g/dl at ages 65-74 years. Black females also generally followed the same pattern as the total female population, reaching a high value of 13.5 g/dl at ages 45-54 years and declining to 13.1 g/dl at ages 65-74 years (table 2, figure 3).

For all ages, white males had higher mean hemoglobin levels than black males (table 1 and figure 2). Similarly, mean hemoglobin levels for white females were consistently higher than those for black females at all ages (table 2, figure 3). A detailed analysis of the hemoglobin data for females of reproductive age[7] reveals that this mean difference between the races is not explained by differences in iron nutriture as measured by transferrin saturation values.

Figure 1. MEAN HEMOGLOBIN LEVELS FOR PERSONS AGED 1-74 YEARS, BY AGE AND SEX: UNITED STATES, 1971-74

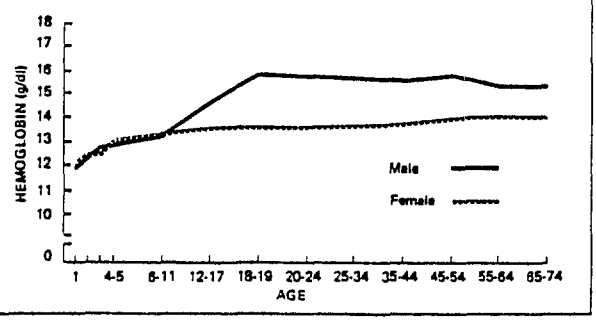


Figure 2. MEAN HEMOGLOBIN LEVELS FOR MALES AGED 1-74 YEARS, BY AGE AND RACE: UNITED STATES, 1971-74

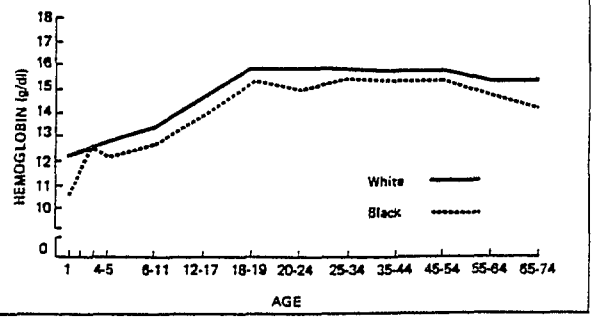


Figure 3. MEAN HEMOGLOBIN LEVELS FOR FEMALES AGED 1-74 YEARS, BY AGE AND RACE: UNITED STATES, 1971-74

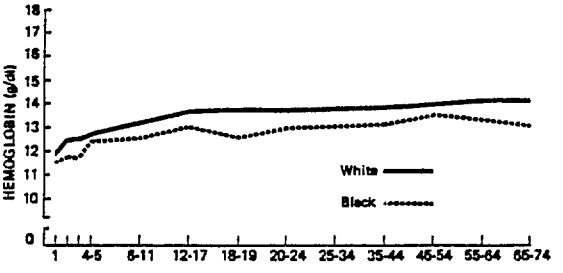
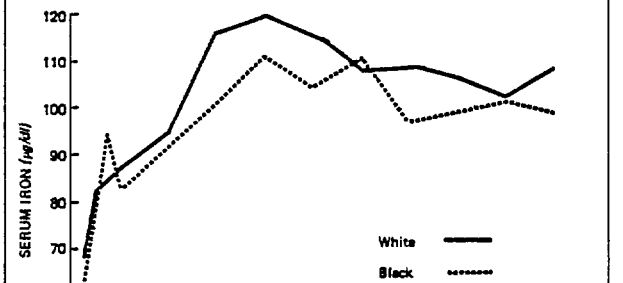


Figure 5. MEAN SERUM IRON LEVELS FOR MALES AGED 1-74 YEARS, BY AGE AND RACE: UNITED STATES, 1971-74



Serum Iron

Mean serum iron levels for males increased from 86.3 μg/dl at ages 4-5 years to 119.4 μg/dl at ages 18-19 years. Thereafter, the mean levels decreased with age to a low value of 102.4 μg/dl at ages 55-64 years, and then increased to 107.7 μg/dl at ages 65-74 years (table 3, figure 4). Table 4 and figure 4 show that the mean serum iron levels for females increased with age from 89.4 μg/dl at ages 4-5 years to a high value of 106.2 μg/dl at ages 20-24 years. The mean levels then decreased irregularly to a low of 97.6 μg/dl at ages 65-74 years. Although females had higher mean serum iron values than males at the younger ages, these differences were small. The differences in mean values were 3.1 μg/dl at ages 4-5 years and 2.0 μg/dl at ages 6-11 years. This pattern was reversed at ages 12-74 years, with males having consistently higher mean serum iron levels. These differences were larger—ranging from 1.2 μg/dl at ages 55-64 years to 18.1 μg/dl at ages 18-19 years (tables 3, 4, and figure 4).

Mean serum iron levels for males did not follow the same pattern as that for females. The levels for black males and white males increased with age from ages 4-5 years to 18-19 years and then generally decreased at ages 20-74 years but with no consistent pattern (table 3, figure 5). For white females and black females, however, the highest mean serum iron levels were observed at ages 20-24 years, 106.9 μg/dl and 103.2 μg/dl respectively. At ages 25-74 years the mean levels decreased irregularly for both black and white females (table 4, figure 6).

With two exceptions, the white population had higher mean serum iron levels than the black

Figure 4. MEAN SERUM IRON LEVELS FOR PERSONS AGED 1-74 YEARS, BY AGE AND SEX: UNITED STATES, 1971-74

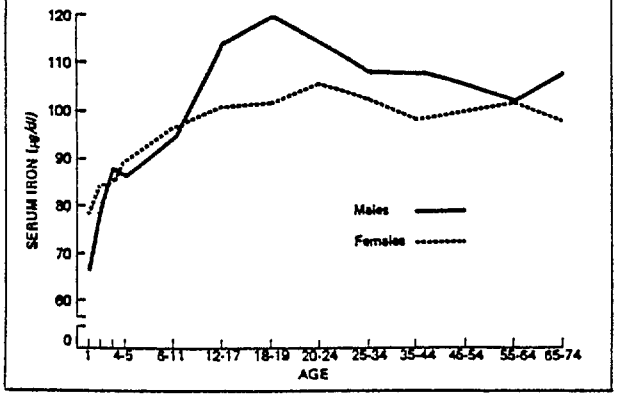


Figure 6. MEAN SERUM IRON LEVELS FOR FEMALES AGED 1-74 YEARS, BY AGE AND RACE: UNITED STATES, 1971-74

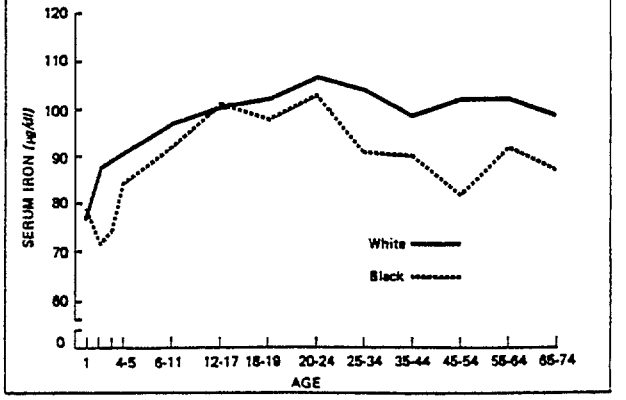


Figure 7. MEAN PERCENT TRANSFERRIN SATURATION LEVELS FOR PERSONS AGED 1-74 YEARS, BY AGE AND SEX: UNITED STATES, 1971-74

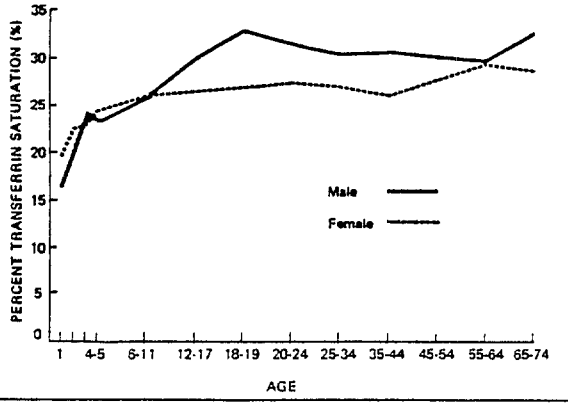
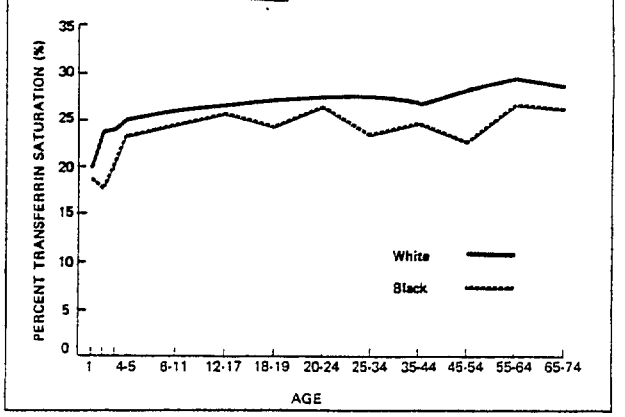


Figure 9. MEAN PERCENT TRANSFERRIN SATURATION LEVELS FOR FEMALES AGED 1-74 YEARS, BY AGE AND RACE: UNITED STATES, 1971-74



population did. One exception was at ages 25-34 years, where black males had higher mean levels than white males. The second exception was at ages 12-17 years where black females had higher levels than white females did.

Percent Transferrin Saturation

The patterns observed for mean serum iron levels were also found for mean percent transferrin saturation levels. Mean percent transferrin saturation levels for males increased with age from 23.3 percent at ages 4-5 years to a high value of 32.8 percent at ages 18-19 years. The mean values then decreased irregularly to 29.8 percent at ages 55-64 years and increased again to 32.5 percent at ages 65-74 years (table 5, figure 7). The mean percent transferrin saturation level for females also increased with age from 24.5 percent at ages 4-5 years to 29.2 percent at ages 55-64 years. At ages 65-74 years there was a slightly lower mean value of 28.6 percent (table 6, figure 7).

Mean percent transferrin saturation levels for females were higher than those for males at ages 4-11 years. At all other ages, males had higher mean levels than females, ranging from 0.6 percent at ages 55-64 years to 6.0 percent at ages 18-19 years (tables 5, 6, and figure 7). In a pattern similar to that for serum iron, and with few exceptions, mean percent transferrin saturation levels were higher for white males than for black males and for white females than for black females (figures 8 and 9).

Figure 8. MEAN PERCENT TRANSFERRIN SATURATION LEVELS FOR MALES AGED 1-74 YEARS, BY AGE AND RACE: UNITED STATES, 1971-74

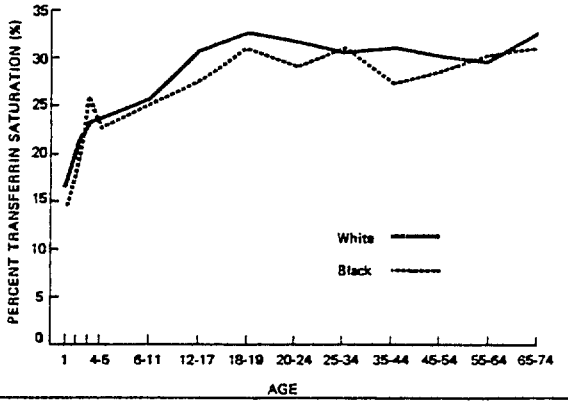


Table 1. Hemoglobin levels of males aged 1-74 years, sample size, estimated population in thousands, mean, standard deviation, standard error of the mean, and selected percentiles, by race and age: United States, 1971-74

Race and age	Sample size	Estimated population in thousands	Mean[1]	Standard deviation[1]	Standard error of the mean[1]	Percentile[1]						
						5th	10th	25th	50th	75th	90th	95th
All races												
1 year	272	1,811	11.9	1.7	.08	7.9	9.8	11.2	12.1	13.0	13.6	13.9
2 years	283	1,778	12.3	1.1	.09	10.6	10.7	11.6	12.4	13.0	13.7	14.0
3 years	294	1,802	12.6	1.1	.09	11.0	11.3	11.9	12.5	13.1	13.8	14.3
4-5 years	549	3,427	12.7	1.0	.07	11.2	11.5	12.1	12.7	13.3	14.0	14.4
6-11 years	974	11,819	13.2	1.0	.05	11.7	12.0	12.6	13.3	13.9	14.4	14.8
12-17 years	1,006	12,558	14.6	1.3	.06	12.5	13.0	13.7	14.5	15.5	16.4	16.7
18-19 years	246	3,667	15.8	1.1	.06	14.0	14.3	15.1	15.9	16.5	17.2	17.6
20-24 years	486	8,088	15.8	1.1	.06	14.0	14.6	15.1	15.8	16.5	17.0	17.4
25-34 years	766	12,991	15.7	1.1	.07	13.9	14.3	15.1	15.8	16.4	17.1	17.5
35-44 years	631	10,663	15.6	1.1	.06	13.9	14.2	15.0	15.6	16.3	17.0	17.5
45-54 years	740	11,195	15.8	1.3	.05	13.9	14.3	15.0	15.8	16.6	17.4	17.9
55-64 years	569	8,971	15.4	1.4	.06	13.2	13.8	14.7	15.5	16.2	17.0	17.6
65-74 years	1,581	5,470	15.3	1.4	.04	13.0	13.6	14.5	15.3	16.2	16.9	17.4
White												
1 year	199	1,502	12.2	1.5	.09	9.6	10.2	11.5	12.3	13.1	13.7	14.0
2 years	205	1,500	12.4	1.0	.11	10.6	10.8	11.8	12.4	13.1	13.8	14.1
3 years	220	1,513	12.6	1.1	.10	11.0	11.4	11.9	12.5	13.1	13.8	14.4
4-5 years	419	2,893	12.8	1.0	.07	11.3	11.6	12.1	12.7	13.5	14.1	14.4
6-11 years	734	10,017	13.3	0.9	.06	11.9	12.2	12.7	13.4	13.9	14.4	14.8
12-17 years	769	10,752	14.7	1.2	.06	12.9	13.2	13.8	14.6	15.6	16.4	16.7
18-19 years	195	3,173	15.9	1.0	.06	14.2	14.7	15.3	15.9	16.5	17.2	17.6
20-24 years	407	7,077	15.9	1.0	.07	14.3	14.7	15.3	15.9	16.5	17.1	17.5
25-34 years	642	11,601	15.8	1.2	.07	13.9	14.3	15.1	15.9	16.5	17.2	17.5
35-44 years	543	9,501	15.7	1.2	.07	13.9	14.3	15.0	15.6	16.3	16.9	17.5
45-54 years	607	10,096	15.8	1.2	.05	14.0	14.4	15.1	15.8	16.6	17.4	17.8
55-64 years	484	8,169	15.4	1.3	.06	13.2	13.8	14.7	15.5	16.3	17.0	17.6
65-74 years	1,293	4,948	15.4	1.3	.04	13.2	13.8	14.6	15.5	16.3	16.9	17.4
Black												
1 year	70	298	10.6	2.0	.21	6.8	7.3	9.6	11.1	12.2	12.7	12.8
2 years	74	260	11.7	1.4	.10	8.6	10.3	10.8	12.0	12.6	13.2	13.2
3 years	64	230	12.5	1.0	.14	10.8	11.2	12.0	12.5	13.1	13.7	13.7
4-5 years	127	508	12.2	1.0	.11	10.8	11.0	11.5	12.2	12.9	13.3	13.6
6-11 years	229	1,686	12.7	1.1	.09	11.1	11.4	11.9	12.6	13.4	14.2	14.4
12-17 years	229	1,687	13.8	1.3	.08	11.7	12.0	12.8	13.7	14.7	15.6	16.3
18-19 years	46	422	15.2	1.2	.18	11.8	13.4	14.4	15.2	16.3	16.5	16.5
20-24 years	70	871	15.0	1.2	.12	12.6	13.1	14.6	15.1	15.9	16.4	16.7
25-34 years	111	1,213	15.4	0.9	.10	13.7	14.2	14.9	15.4	15.9	16.5	16.9
35-44 years	80	1,007	15.3	1.1	.12	13.8	13.9	14.4	15.3	15.6	16.8	17.8
45-54 years	126	1,044	15.4	1.6	.09	13.3	13.6	14.3	15.3	16.0	17.6	18.2
55-64 years	77	707	14.8	1.3	.12	12.3	13.8	14.0	14.9	15.4	16.0	16.8
65-74 years	270	482	14.3	1.6	.10	11.8	12.3	13.2	14.4	15.1	15.9	17.0

[1] g/dl

Table 2. Hemoglobin levels of females aged 1-74 years, sample size, estimated population in thousands, mean, standard deviation, standard error of the mean, and selected percentiles, by race and age: United States, 1971-74

Race and age	Sample size	Estimated population in thousands	Mean	Standard deviation[1]	Standard error of the mean[1]	Percentile[1]						
						5th	10th	25th	50th	75th	90th	95th
All races												
1 year	254	1,729	12.0	1.2	.06	9.5	10.5	11.4	12.1	12.6	13.3	13.7
2 years	257	1,742	12.4	1.1	.09	10.7	11.0	11.6	12.5	13.1	13.5	14.2
3 years	278	1,694	12.4	1.0	.10	10.8	11.2	11.8	12.4	13.1	13.9	14.0
4-5 years	571	3,299	12.8	1.0	.07	11.2	11.5	12.0	12.7	13.5	14.0	14.6
6-11 years	974	11,392	13.2	1.0	.05	11.6	11.9	12.5	13.1	13.8	14.2	14.8
12-17 years	1,006	12,187	13.6	1.0	.06	12.0	12.3	12.9	13.6	14.3	14.9	15.4
18-19 years	260	3,810	13.6	1.2	.09	11.8	12.3	13.0	13.6	14.3	15.0	15.3
20-24 years	1,171	9,047	13.6	1.1	.06	11.9	12.3	12.9	13.6	14.3	14.9	15.3
25-34 years	1,793	13,943	13.7	1.2	.04	11.9	12.3	13.0	13.7	14.5	15.2	15.6
35-44 years	1,584	11,577	13.7	1.2	.04	11.7	12.2	13.0	13.7	14.4	15.2	15.7
45-54 years	788	12,180	14.0	1.3	.06	12.0	12.5	13.2	14.0	14.7	15.4	15.9
55-64 years	639	9,998	14.1	1.1	.06	12.5	12.7	13.4	14.1	14.9	15.5	15.8
65-74 years	1,728	7,138	14.0	1.2	.05	12.0	12.4	13.2	14.0	14.8	15.5	15.8
White												
1 year	179	1,426	12.0	1.1	.06	9.5	10.9	11.4	12.1	12.7	13.3	13.6
2 years	197	1,459	12.5	1.1	.12	10.7	11.0	11.7	12.6	13.2	13.6	14.3
3 years	204	1,417	12.5	1.0	.11	10.8	11.2	11.9	12.5	13.2	14.0	14.0
4-5 years	418	2,768	12.8	1.0	.08	11.2	11.6	12.1	12.8	13.5	14.0	14.7
6-11 years	734	9,602	13.2	0.9	.05	11.6	12.1	12.6	13.2	13.8	14.4	14.8
12-17 years	764	10,391	13.7	1.0	.07	12.1	12.4	13.0	13.7	14.4	15.1	15.5
18-19 years	194	3,263	13.8	1.0	.11	12.2	12.6	13.2	13.7	14.3	15.0	15.4
20-24 years	910	7,827	13.7	1.0	.06	12.1	12.5	13.0	13.7	14.3	15.0	15.3
25-34 years	1,477	12,193	13.8	1.2	.05	12.1	12.4	13.0	13.8	14.6	15.3	15.7
35-44 years	1,249	10,100	13.8	1.2	.04	11.9	12.3	13.1	13.8	14.4	15.3	15.7
45-54 years	665	10,878	14.0	1.3	.06	12.1	12.6	13.3	14.1	14.8	15.4	16.0
55-64 years	531	9,058	14.2	1.0	.06	12.6	12.9	13.5	14.2	14.9	15.6	15.8
65-74 years	1,426	6,486	14.1	1.2	.05	12.2	12.6	13.3	14.0	14.9	15.6	15.9
Black												
1 year	70	267	11.6	1.4	.17	9.5	9.7	11.1	11.7	12.5	13.0	13.4
2 years	57	270	11.8	0.8	.13	10.2	10.7	11.3	11.9	12.3	12.6	12.9
3 years	71	259	11.8	1.0	.18	10.1	10.6	11.3	11.8	12.3	13.1	13.3
4-5 years	148	503	12.5	1.0	.10	11.0	11.1	11.7	12.4	13.1	13.8	14.1
6-11 years	234	1,715	12.6	0.9	.07	11.2	11.5	12.0	12.5	13.2	13.7	14.2
12-17 years	235	1,709	13.0	1.0	.06	11.3	11.7	12.5	13.0	13.8	14.2	14.5
18-19 years	64	530	12.6	1.5	.15	7.7	11.1	11.9	12.8	13.4	14.2	14.3
20-24 years	236	1,053	13.0	1.3	.09	10.6	11.5	12.1	12.9	14.0	14.6	15.0
25-34 years	294	1,623	13.1	1.2	.08	10.9	11.5	12.3	13.2	14.0	14.6	14.8
35-44 years	307	1,314	13.2	1.4	.07	10.7	11.3	12.3	13.2	14.1	14.8	15.3
45-54 years	118	1,256	13.5	1.2	.12	11.4	12.0	12.8	13.6	14.2	14.7	15.0
55-64 years	105	872	13.3	1.1	.15	11.3	11.8	12.5	13.4	14.1	14.5	15.2
65-74 years	294	629	13.1	1.4	.07	10.7	11.3	12.3	13.1	14.0	14.7	15.1

[1] g/dl

Table 3. Serum iron levels of males aged 1-74 years, sample size, estimated population in thousands, mean, standard deviation, standard error of the mean, and selected percentiles, by race and age: United States, 1971-74

Race and age	Sample size	Estimated population in thousands	Mean[1]	Standard deviation[1]	Standard error of the mean[1]	Percentile[1]						
						5th	10th	25th	50th	75th	90th	95th
All races												
1 year	114	(2)	67.1	34.1	(2)	25.7	29.0	41.0	59.0	88.5	109.8	128.1
2 years	153	(2)	80.4	34.1	(2)	33.6	39.0	54.0	77.0	95.0	128.8	146.1
3 years	192	(2)	87.4	34.1	(2)	36.0	45.2	60.0	83.0	110.0	128.8	148.2
4-5 years	552	3,427	86.3	33.8	1.4	33.0	41.4	63.0	84.0	109.0	131.2	145.3
6-11 years	979	11,819	94.1	33.7	1.2	42.1	52.0	70.0	92.0	113.0	138.7	153.2
12-17 years	1,011	12,558	113.4	41.1	1.4	56.0	67.0	87.0	108.0	135.0	161.0	180.0
18-19 years	246	3,667	119.4	44.6	2.9	55.1	73.2	93.0	113.0	140.0	177.0	194.6
20-24 years	483	8,088	114.4	35.7	1.5	65.0	72.0	89.0	110.0	136.1	160.0	179.0
25-34 years	764	12,991	108.2	36.4	1.4	58.0	66.0	84.0	103.0	127.0	152.0	178.0
35-44 years	634	10,663	108.1	38.0	2.0	61.0	65.0	80.0	103.9	129.0	152.2	171.0
45-54 years	715	11,195	105.7	38.9	1.8	53.8	64.0	79.9	99.0	126.5	151.0	173.7
55-64 years	556	8,971	102.4	34.9	1.6	51.3	61.8	78.8	100.0	121.0	149.8	170.0
65-74 years	1,545	5,470	107.7	34.9	0.9	57.0	66.0	84.0	105.0	126.0	153.8	167.0
White												
1 year	88	(2)	68.9	32.6	(2)	26.0	29.0	45.0	64.0	88.0	111.4	130.2
2 years	111	(2)	82.2	31.7	(2)	36.2	45.0	56.0	79.5	95.2	124.7	144.0
3 years	142	(2)	85.0	34.4	(2)	35.1	44.2	56.5	81.0	107.5	123.8	151.0
4-5 years	411	2,893	87.2	33.6	1.7	33.0	44.7	64.0	85.0	109.0	133.7	145.4
6-11 years	719	10,017	94.5	34.4	1.4	42.0	50.6	70.0	93.0	114.0	139.0	154.0
12-17 years	753	10,752	115.4	42.0	1.6	56.0	67.0	88.0	111.0	138.0	162.0	182.0
18-19 years	189	3,173	119.5	44.5	3.0	55.5	73.5	93.0	113.7	140.0	176.5	193.9
20-24 years	394	7,077	115.7	36.2	1.5	65.0	72.1	89.9	113.0	138.0	161.0	179.2
25-34 years	632	11,601	108.0	36.9	1.5	57.0	65.0	82.6	103.0	127.0	152.1	177.7
35-44 years	539	9,501	108.7	38.3	2.1	62.0	67.0	81.8	104.0	129.0	153.0	170.3
45-54 years	579	10,096	106.4	39.7	2.0	53.3	64.0	80.0	99.0	127.0	152.8	175.0
55-64 years	464	8,169	102.3	35.5	1.8	51.0	61.0	78.6	99.0	121.0	151.0	171.1
65-74 years	1,232	4,948	108.6	34.7	1.0	57.0	67.0	85.0	106.0	128.0	154.0	166.9
Black												
1 year	26	(2)	61.1	38.8	(2)	23.6	25.6	34.0	45.0	81.5	102.4	119.3
2 years	40	(2)	74.0	37.9	(2)	25.0	32.0	43.0	62.0	93.0	130.0	144.0
3 years	43	(2)	94.6	34.4	(2)	46.4	55.0	67.0	80.5	116.0	132.7	144.1
4-5 years	138	508	82.3	34.8	2.6	32.0	35.0	61.0	79.0	108.3	123.4	141.9
6-11 years	250	1,686	91.6	30.0	2.3	48.0	53.0	67.0	91.0	110.2	134.5	145.8
12-17 years	250	1,687	100.8	32.6	1.5	47.2	65.0	78.0	97.9	120.0	136.2	153.4
18-19 years	52	422	111.3	43.3	8.5	48.0	62.2	86.6	102.0	129.0	161.4	171.0
20-24 years	79	871	104.7	31.0	4.6	57.0	71.0	86.8	97.5	120.3	140.8	152.0
25-34 years	119	1,213	110.3	32.8	3.3	61.0	74.0	88.4	104.0	134.0	151.5	176.7
35-44 years	87	1,007	96.7	32.9	3.6	55.0	61.3	72.7	91.6	115.4	139.0	155.9
45-54 years	130	1,044	99.1	29.5	3.1	60.0	63.5	77.0	96.8	114.5	132.3	148.1
55-64 years	85	707	101.0	27.3	3.4	59.0	68.9	78.1	101.3	116.0	133.6	143.7
65-74 years	294	482	98.0	35.9	1.7	50.8	59.0	75.0	92.0	116.0	144.0	169.9

[1] μg/dl

[2] Estimated population in thousands and standard error of the mean not included because of possible bias due to missing values.

Table 4. Serum iron levels of females aged 1-74 years, sample size, estimated population in thousands, mean, standard deviation, standard error of the mean, and selected percentiles, by race and age: United States, 1971-74

Race and age	Sample size	Estimated population in thousands	Mean[1]	Standard deviation[1]	Standard error of the mean[1]	Percentile[1]						
						5th	10th	25th	50th	75th	90th	95th
All races												
1 year	77	(2)	78.3	33.8	(2)	26.7	36.4	56.0	74.0	94.8	122.3	150.6
2 years	139	(2)	84.2	35.6	(2)	30.9	35.9	54.2	83.5	113.0	134.0	144.0
3 years	175	(2)	85.0	34.1	(2)	34.8	43.0	59.0	83.5	105.5	124.0	146.0
4-5 years	571	3,299	89.4	31.7	1.8	41.0	52.6	68.0	86.0	108.0	129.8	144.1
6-11 years	988	11,392	96.1	32.1	1.2	48.0	58.0	71.0	95.0	117.0	137.0	147.0
12-17 years	1,011	12,187	100.4	36.2	1.4	45.0	55.0	75.0	99.0	122.0	146.3	163.0
18-19 years	263	3,810	101.3	42.3	2.3	38.0	50.0	67.0	95.0	129.0	154.0	173.5
20-24 years	1,188	9,047	106.2	42.0	1.2	48.0	55.0	77.0	101.0	130.0	161.4	182.0
25-34 years	1,822	13,943	102.4	42.9	0.9	44.0	52.0	72.0	95.2	127.0	161.0	180.9
35-44 years	1,582	11,577	98.0	40.3	1.2	42.0	53.0	69.0	94.0	120.0	149.0	171.0
45-54 years	789	12,180	99.9	36.8	2.3	47.0	58.1	76.0	94.0	116.8	152.0	172.0
55-64 years	632	9,998	101.2	34.4	3.0	55.0	61.5	78.0	97.0	118.0	138.0	164.8
65-74 years	1,701	7,138	97.6	31.2	0.6	54.0	60.0	76.0	95.0	116.0	135.0	152.0
White												
1 year	56	(2)	78.3	33.8	(2)	26.6	36.2	56.0	74.0	94.0	121.4	151.4
2 years	104	(2)	88.2	36.4	(2)	29.4	37.0	59.0	85.0	114.0	140.0	146.6
3 years	130	(2)	88.7	34.4	(2)	38.0	45.0	63.0	88.0	109.0	124.0	151.0
4-5 years	405	2,768	90.4	31.6	2.0	43.9	54.0	69.0	87.0	108.0	131.0	144.5
6-11 years	720	9,602	96.8	32.7	1.5	48.0	58.0	72.1	95.0	118.0	138.0	149.1
12-17 years	744	10,391	100.4	36.2	1.6	45.0	55.0	75.0	99.0	122.0	147.2	163.0
18-19 years	191	3,263	101.9	42.4	2.6	39.0	52.3	67.0	95.0	129.9	153.8	176.6
20-24 years	903	7,827	106.9	42.5	1.3	48.0	55.0	77.0	102.0	130.0	165.0	183.0
25-34 years	1,468	12,193	104.0	43.3	1.0	44.0	54.0	75.0	96.1	129.0	161.0	182.2
35-44 years	1,221	10,100	98.7	40.3	1.3	43.0	53.6	70.0	94.0	122.0	150.0	173.0
45-54 years	658	10,878	102.0	37.5	2.6	46.0	59.0	78.0	96.0	119.7	157.0	175.0
55-64 years	514	9,058	102.2	34.6	3.2	55.0	62.0	79.0	98.0	118.0	141.0	167.0
65-74 years	1,375	6,486	98.7	31.3	0.7	55.0	62.0	77.0	95.0	117.0	136.6	153.5
Black												
1 year	20	(2)	78.5	35.3	(2)	25.0	35.0	45.0	70.0	98.0	123.0	138.0
2 years	33	(2)	71.8	31.1	(2)	30.2	33.0	45.8	64.0	97.2	111.8	120.0
3 years	43	(2)	74.8	31.8	(2)	33.2	35.3	50.8	71.0	91.0	115.5	140.3
4-5 years	161	503	84.4	31.8	2.3	34.6	43.1	61.4	85.0	105.0	119.1	143.4
6-11 years	262	1,715	91.8	28.3	2.1	53.5	57.0	69.0	87.0	114.0	128.0	137.4
12-17 years	260	1,709	100.6	37.4	2.4	48.1	54.0	74.0	97.0	127.0	145.0	156.4
18-19 years	70	530	97.8	41.9	5.2	20.6	37.7	65.0	96.6	124.0	150.0	162.6
20-24 years	258	1,053	103.2	39.6	2.1	40.8	51.0	74.0	96.6	136.0	151.0	168.8
25-34 years	334	1,623	90.7	37.1	1.8	44.0	47.4	64.0	84.0	110.9	143.1	162.5
35-44 years	334	1,314	90.1	37.2	2.2	36.8	45.2	65.0	89.0	108.1	134.0	138.5
45-54 years	126	1,256	81.7	23.5	2.3	47.6	56.0	66.0	76.0	92.0	110.6	133.2
55-64 years	115	872	92.0	31.8	3.4	55.0	57.4	67.0	84.0	112.0	125.0	144.0
65-74 years	318	629	86.9	28.1	1.1	47.9	54.0	71.0	82.0	105.0	124.0	135.6

[1] μg/dl

[2] Estimated population in thousands and standard error of the mean not included because of possible bias due to missing values.

Table 5. Percent transferrin saturation of males aged 1-74 years, sample size, estimated population in thousands, mean, standard deviation, standard error of the mean, and selected percentiles, by race and age: United States, 1971-74

Race and age	Sample size	Estimated population in thousands	Mean	Standard deviation	Standard error of the mean	Percentile						
						5th	10th	25th	50th	75th	90th	95th
All races												
1 year	113	(1)	16.4	9.3	(1)	5.1	6.0	9.2	14.1	21.4	28.3	33.4
2 years	150	(1)	20.6	9.5	(1)	7.2	9.4	14.2	18.8	26.2	32.7	36.8
3 years	192	(1)	23.8	10.5	(1)	10.2	11.7	15.9	22.5	29.7	36.5	40.8
4-5 years	552	3,427	23.3	9.2	0.40	9.0	11.3	16.6	22.6	29.0	35.1	38.8
6-11 years	979	11,819	25.5	9.7	0.36	11.2	13.8	18.9	24.7	31.1	38.2	42.4
12-17 years	1,011	12,558	30.1	11.8	0.39	14.2	17.4	22.1	28.6	35.9	44.0	50.5
18-19 years	246	3,667	32.8	12.7	0.82	15.0	19.5	23.6	30.0	38.5	49.4	60.1
20-24 years	483	8,088	31.6	10.0	0.44	17.6	20.6	24.2	30.0	37.8	44.2	47.0
25-34 years	764	12,991	30.5	10.4	0.43	16.2	18.2	22.9	29.1	36.4	42.9	51.3
35-44 years	634	10,663	30.9	11.8	0.63	16.8	18.6	22.4	28.9	37.0	43.4	50.1
45-54 years	715	11,195	30.0	12.3	0.58	15.4	17.4	21.8	27.7	35.3	44.1	51.0
55-64 years	556	8,971	29.8	11.7	0.64	14.8	17.3	22.2	28.3	35.7	43.9	48.0
65-74 years	1,545	5,470	32.5	11.6	0.30	16.8	19.6	24.7	31.2	39.1	46.1	51.9
White												
1 year	87	(1)	16.9	9.2	(1)	5.3	6.0	9.7	15.7	21.5	27.5	34.2
2 years	109	(1)	21.2	8.9	(1)	8.8	11.4	15.3	19.9	26.6	32.6	36.9
3 years	142	(1)	23.1	10.4	(1)	10.1	11.2	15.3	21.6	28.6	36.3	40.7
4-5 years	411	2,893	23.5	9.2	0.46	9.1	11.4	16.8	23.0	29.1	35.3	38.5
6-11 years	719	10,017	25.6	9.9	0.39	11.0	13.6	18.8	24.8	31.3	38.5	43.1
12-17 years	753	10,752	30.6	12.0	0.45	14.4	17.6	22.1	29.1	36.5	44.8	50.5
18-19 years	189	3,173	32.7	12.6	0.87	15.1	19.5	23.6	29.5	38.4	49.4	60.2
20-24 years	394	7,077	31.9	10.1	0.46	18.2	20.6	24.4	30.2	38.1	44.6	47.1
25-34 years	632	11,601	30.5	10.5	0.46	16.1	18.2	22.8	29.1	36.3	42.9	53.0
35-44 years	539	9,501	31.1	11.9	0.67	16.8	18.7	22.6	29.2	37.0	43.5	49.7
45-54 years	579	10,096	30.1	12.5	0.63	15.4	17.6	21.9	27.7	35.3	44.4	52.1
55-64 years	464	8,169	29.7	12.0	0.70	14.8	17.3	21.8	28.0	35.6	44.5	48.1
65-74 years	1,232	4,948	32.7	11.6	0.32	16.6	19.6	24.9	31.4	39.2	46.3	52.1
Black												
1 year	26	(1)	14.5	9.8	(1)	4.5	4.9	8.2	9.7	19.8	27.9	31.6
2 years	39	(1)	18.0	9.3	(1)	5.5	6.2	10.6	15.8	23.2	32.2	35.8
3 years	43	(1)	25.7	11.5	(1)	9.8	13.1	16.7	23.3	31.4	38.8	41.2
4-5 years	138	508	22.3	9.4	0.63	8.4	8.9	15.1	21.0	28.5	34.9	40.0
6-11 years	250	1,686	25.1	8.6	0.64	13.2	14.2	19.0	24.3	31.0	34.8	39.8
12-17 years	250	1,687	27.3	9.8	0.40	13.8	15.8	21.2	26.7	31.5	38.4	40.8
18-19 years	52	422	31.1	12.1	2.47	14.8	17.5	22.3	30.1	36.5	40.6	49.6
20-24 years	79	871	29.2	9.1	1.19	16.0	16.7	23.5	29.0	32.5	41.3	42.4
25-34 years	119	1,213	31.0	9.1	0.97	17.8	19.9	23.7	30.2	37.5	42.9	43.1
35-44 years	87	1,007	27.4	9.9	1.24	16.1	17.8	19.7	25.2	32.3	37.0	47.2
45-54 years	130	1,044	28.5	9.5	0.95	15.4	16.1	20.4	26.7	35.3	40.6	43.1
55-64 years	85	707	30.3	8.3	1.01	15.7	18.9	24.7	29.0	37.2	39.3	43.6
65-74 years	294	482	30.8	11.4	0.52	17.2	19.5	23.1	27.9	36.6	45.6	50.3

[1] Estimated population in thousands and standard error of the mean not included because of possible bias due to missing values.

Table 6. Percent transferrin saturation of females aged 1-74 years, sample size, estimated population in thousands, mean, standard deviation, standard error of the mean, and selected percentiles, by race and age: United States, 1971-74

Race and age	Sample size	Estimated population in thousands	Mean	Standard deviation	Standard error of the mean	Percentile						
						5th	10th	25th	50th	75th	90th	95th
All races												
1 year	77	(1)	19.5	9.3	(1)	6.5	8.3	12.7	18.2	23.8	31.9	36.0
2 years	138	(1)	22.2	10.3	(1)	6.2	8.5	14.8	21.1	28.6	35.8	40.8
3 years	175	(1)	22.7	9.6	(1)	9.5	11.3	15.4	22.3	28.1	33.8	39.2
4-5 years	571	3,299	24.5	8.9	0.53	11.2	13.3	18.2	23.8	30.2	35.3	40.9
6-11 years	988	11,392	25.8	9.3	0.34	12.5	14.8	18.8	25.1	30.9	38.2	41.6
12-17 years	1,011	12,187	26.2	9.8	0.38	11.5	14.6	19.2	25.3	32.4	38.6	44.6
18-19 years	263	3,810	26.8	12.2	0.69	10.4	12.7	18.7	24.4	33.7	43.4	56.2
20-24 years	1,188	9,047	27.3	11.5	0.34	11.5	14.5	19.1	25.9	33.6	43.2	47.8
25-34 years	1,822	13,943	27.1	11.9	0.26	10.2	13.2	18.7	25.8	33.4	43.1	48.3
35-44 years	1,582	11,577	26.5	11.6	0.36	10.1	13.2	18.0	25.4	33.2	42.6	48.5
45-54 years	789	12,180	27.8	11.3	0.78	11.4	16.2	20.6	25.8	32.7	42.3	50.7
55-64 years	632	9,998	29.2	10.6	1.07	15.2	17.1	22.5	27.6	34.5	41.0	47.3
65-74 years	1,701	7,138	28.6	10.0	0.23	15.0	17.1	22.1	27.5	34.4	40.5	44.6
White												
1 year	56	(1)	19.7	9.0	(1)	6.5	8.7	13.1	18.4	23.2	33.6	36.1
2 years	103	(1)	23.6	10.5	(1)	6.3	9.5	15.7	23.0	30.8	37.3	42.0
3 years	130	(1)	23.8	9.6	(1)	10.4	12.1	16.9	23.7	28.8	34.9	39.8
4-5 years	405	2,768	24.8	8.9	0.59	11.5	13.6	18.7	23.9	30.3	35.5	40.9
6-11 years	720	9,602	26.1	9.5	0.41	12.2	14.9	18.8	25.3	30.9	38.7	42.8
12-17 years	744	10,391	26.4	9.9	0.43	11.5	14.8	19.2	25.4	32.4	39.6	44.9
18-19 years	199	3,263	27.2	12.3	0.74	10.5	13.2	18.8	24.6	33.7	43.7	56.3
20-24 years	903	7,827	27.4	11.5	0.39	11.7	14.7	19.1	26.0	33.6	43.4	48.5
25-34 years	1,468	12,193	27.6	12.0	0.30	10.4	13.5	19.1	26.3	34.1	43.4	48.7
35-44 years	1,221	10,100	26.7	11.6	0.43	10.4	13.3	18.2	25.4	33.6	42.9	48.5
45-54 years	658	10,878	28.4	11.6	0.88	11.3	16.3	20.8	26.7	33.8	43.5	51.6
55-64 years	514	9,058	29.5	10.7	1.18	15.2	17.8	22.8	27.8	34.5	41.2	48.6
65-74 years	1,375	6,486	28.8	10.1	0.26	15.0	17.1	22.1	27.7	34.5	40.9	44.9
Black												
1 year	20	(1)	18.9	10.4	(1)	4.6	6.8	9.3	17.8	25.2	30.7	31.7
2 years	33	(1)	17.8	8.7	(1)	5.8	7.2	9.3	17.1	23.9	30.1	31.6
3 years	43	(1)	19.7	9.1	(1)	6.7	9.5	12.8	18.2	24.5	30.0	33.7
4-5 years	161	503	23.1	9.0	0.63	9.6	11.9	16.6	22.6	28.0	32.3	40.5
6-11 years	262	1,715	24.5	8.1	0.65	13.4	15.0	18.7	23.3	29.9	35.0	38.9
12-17 years	260	1,709	25.6	9.5	0.62	12.0	13.3	18.9	24.6	32.7	38.2	39.0
18-19 years	70	530	24.4	11.4	1.30	4.7	9.2	14.4	23.8	30.6	38.7	42.1
20-24 years	258	1,053	26.4	10.9	0.59	9.8	12.9	19.0	24.4	33.5	39.8	44.7
25-34 years	334	1,623	23.5	10.3	0.50	10.0	11.9	16.0	22.9	28.7	34.2	43.6
35-44 years	334	1,314	24.8	11.3	0.59	9.2	11.6	16.9	23.9	29.8	37.9	42.7
45-54 years	126	1,256	22.7	7.3	0.62	11.5	14.2	17.6	21.0	25.8	31.2	35.9
55-64 years	115	872	26.6	9.7	1.15	14.8	15.2	18.3	25.4	34.5	38.1	43.4
65-74 years	318	629	26.1	8.1	0.37	13.0	16.1	21.4	25.2	31.3	35.7	38.6

[1]Estimated population in thousands and standard error of the mean not included because of possible bias due to missing values.

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TECHNICAL NOTES

The sampling plan for the 65 preselected examination locations in the Health and Nutrition Examination Survey followed a highly stratified multistage probability design in which a sample of the civilian noninstitutionalized population of the conterminous United States 1-74 years of age was selected. Successive elements of the sampling process were the primary sampling unit, census enumeration district, segment (a cluster of households), household, eligible person, and finally, sample person. The sampling design provided for oversampling among persons living in poverty areas, preschool children, women of childbearing age, and the elderly.

The biochemical findings for each individual have been "weighted" by the reciprocal of the probability of selecting the person. An adjustment for persons in the sample who were not examined and poststratified ratio adjustments were also made. Thus the final sampling estimates of the population size were brought into closer alignment with the independent U.S. Bureau of the Census estimates for the civilian noninstitutionalized population of the United States as of November 1, 1972, by race, sex, and age.

SYMBOLS

Data not available	---
Category not applicable	...
Quantity zero	-
Quantity more than 0 but less than 0.05	0.0
Figure does not meet standards of reliability or precision	*

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FROM VITAL & HEALTH STATISTICS OF THE NATIONAL CENTER FOR HEALTH STATISTICS
U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE • Public Health Service Office of Health Research, Statistics, and Technology • Number 47 • April 3, 1979

Prevalence, Disability, and Health Care for Psoriasis Among Persons 1-74 Years: United States[a]

This report presents national estimates for the prevalence of psoriasis and related pathology, the resultant concern and handicap, and the need for health care for these conditions among the civilian noninstitutionalized population 1-74 years of age in the United States. The data are based on direct examination findings from the Health and Nutrition Examination Survey (HANES) of 1971-1974.

The first HANES program, in which these data were obtained, was designed to measure the nutritional status as well as certain aspects of general health status and health care needs in the U.S. population. These programs secure information on the prevalence of medically defined illnesses, including previously unrecognized and undiagnosed conditions, as well as on a variety of physical, physiological, and psychological measures within the population through direct examinations, tests, and measurements, as described in previous publications.[1-4]

The dermatology component of the first HANES was planned at the request of and in cooperation with the Committee on Planning for the National Program for Dermatology of the National Academy of Dermatology. Dr. Marie-Louise T. Johnson, Chairman of the Data Collection Unit for the National Program, was primarily responsible for planning the content of the examination, recruiting the dermatologists, and training them in the examination methodology to minimize variation among examiners.

This second *Advance Data* from the dermatology examination findings is limited to statistics on persons identified by the examiner as having psoriasis as classified under code 7060 in the *Code of Skin Diseases.*[5] Further information on the demographic and socioeconomic distribution of all types of skin pathology, the extent of disability or handicap caused by skin conditions, and the extent to which medical care for such conditions has been sought or needed among the U.S. population is summarized in an earlier *Advance Data*[6] and further described and analyzed in a *Vital and Health Statistics* series report.[7] These data augment those included for psoriasis in the previously published report.

TRENDS

An estimated 5.8 per 1,000 persons 1-74 years of age in the U.S. civilian noninstitutionalized population have psoriasis as determined in the dermatology component of the Health and Nutrition Examination Survey of 1971-1974. An additional 0.4 per 1,000 were shown in the detailed examination to have active psoriasis. Nearly 70 percent of those afflicted were concerned enough to complain about their condition, a rate of 4.0 per 1,000 population (table 1).

Psoriasis is a chronic condition of the skin that usually appears first in the third decade of life but may appear at any time and can be seen in children. Classically, there are red plaques with silvery scales over the elbows and knees, and occasionally the scalp, but psoriasis may become evident suddenly over the entire body as

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Table 1. Prevalence and prevalence rates among persons 1-74 years of age for all psoriasis diagnosed and such conditions evoking complaints, by type of condition and sex, with standard errors for total rates: United States, 1971-1974

Type of psoriatic pathology and New York University code	Significant pathology			Complaints		
	Both sexes	Male	Female	Both sexes	Male	Female
	Number of persons in thousands					
Psoriasis, all types....7060	1,117	594	523	803	401	402
Rupial....706050	-	-	-	7	-	7
Guttate....706060	3	-	3	-	-	-
With arthritis....706070	50	39	11	51	38	13
Types N.O.S.[1]....706090	1,065	556	509	745	363	382
	Rate per 1,000 population					
Psoriasis....7060	5.8	6.3	5.3	4.0	4.1	4.0
Rupial....706050	-	-	-	*0.04	-	*0.07
Guttate....706060	*0.01	-	*0.02	-	-	-
With arthritis....706070	*0.25	*0.41	*0.11	*0.26	*0.41	*0.13
Types N.O.S.[1]....706090	5.49	5.90	5.09	3.84	3.85	3.82
	Standard error of rate					
Psoriasis....7060	0.76	1.10	.09	0.58	0.86	0.93

[1] N.O.S.--not otherwise specified.

small, scattered, drop-like lesions of redness and scale, so-called guttate psoriasis. Pitting of the nails can be seen with lifting and flaring, a form of psoriasis that may be associated with arthritis.[8,9]

Although found in families, psoriasis is inherited in a pattern still unclear. Through genetic markers a group of psoriatic patients can be identified who have a high rate of affected relatives, a younger onset of disease, and a more severe form.

The HANES dermatologists recorded the presence of psoriasis, its extent and severity, the presence or absence of scalp involvement, and arthritis. The most frequently diagnosed type of the disease was psoriasis vulgaris, otherwise unspecified (afflicting 95 percent of those with psoriasis diagnosed in the survey). Individuals who had an associated arthritis were 4.0 percent of the total; the remaining 1.0 percent had guttate psoriasis, the explosive form sometimes associated with physiological stress such as fever, or specific therapy such as antibiotics.

Psoriasis was found slightly more frequently among males (6.3 per 1,000) than females (5.3 per 1,000), although the difference in rates was small enough to be due to sampling variability alone. The complaint rate was similar for both sexes (4.1 and 4.0 per 1,000).

As would be expected with a problem beginning in most people after age 20, the prevalence rates for psoriasis were lowest among children 6-11 years and adults 18-44 years of age (less than 2 per 1,000), and highest among adults 45-74 years (11-12 per 1,000 population).

Complaints concerning their skin pathology were correspondingly lower among children and younger adults (through age 44), with rates of 1-3 per 1,000 population (table 2). For persons age 45 years or older rates decreased slightly with age from 10 per 1,000 population at 45-54 years to 7 per 1,000 at 65-74 years (figures 1-3).

Race made a difference in the prevalence of psoriasis. White persons were affected more than black persons (6.5 per 1,000 against 0.6 per 1,000). Correspondingly more white persons (4.5 per 1,000) than black persons (0.4 per 1,000) registered concern about their condition,

Table 2. Prevalence rates for all psoriasis diagnosed and such conditions evoking complaints, proportion considering psoriasis a handicap by severity, age, sex, and race among persons 1-74 years of age, with standard errors for totals: United States, 1971-1974

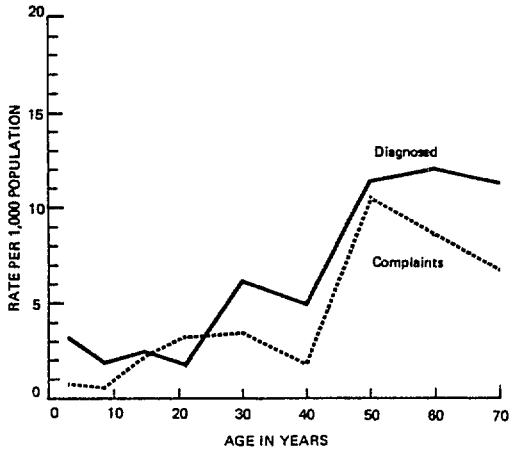
Condition or handicap	Both sexes				All races, 1-74 years		Both sexes, 1-74 years		All races, 1-74 years		
	1-74 years	1-17 years	18-44 years	45-74 years	Male	Female	White	Black	Both sexes	Male	Female
	Rate per 1,000 population								Standard error		
All psoriasis diagnosed	5.8	2.4	4.3	11.6	6.3	5.3	6.5	0.6	0.76	1.10	1.09
Psoriasis evoking complaints	4.0	1.2	2.8	8.9	4.1	4.0	4.5	0.4	0.58	0.86	0.93
	Percent										
Some employment or housework handicaps among persons with:											
Psoriasis diagnosed	7.5	9.3	6.9	7.3	7.0	8.1	7.2	29.2	3.42	3.78	5.24
Psoriasis evoking complaints	11.2	19.0	10.7	10.2	10.8	11.6	10.8	42.7	4.62	5.71	7.68
Preferred employment precluded among persons with:											
Psoriasis diagnosed	0.8	-	-	1.4	1.5	-	0.8	-	0.78	1.47	-
Psoriasis evoking complaints	1.3	-	-	1.8	2.3	-	1.4	-	1.62	2.21	-
Some social handicap among persons with:											
Psoriasis diagnosed	23.3	14.8	25.8	24.0	24.5	21.9	23.2	29.2	5.38	7.47	7.20
Psoriasis evoking complaints	38.5	30.4	35.6	41.0	36.4	40.5	38.4	42.7	7.23	11.33	11.13
	Percent distribution of persons with psoriasis evoking complaints										
By severity of employment or housework handicap:	100.0	100.0	100.0	100.0	100.0	100.0	---	---	---	---	---
Totally handicapped	0.1	-	0.2	-	-	0.1	---	---	---	---	---
Partial-severe	2.5	-	9.6	-	4.9	0.2	---	---	---	---	---
Partial-minimal	8.6	19.0	1.0	10.1	5.7	11.1	---	---	---	---	---
Essentially none	88.8	81.0	89.2	89.9	89.4	88.6	---	---	---	---	---
By severity of social handicap:											
Severe	0.3	-	0.5	-	-	0.3	---	---	---	---	---
Minimal	93.0	30.4	35.1	37.0	35.6	35.2	---	---	---	---	---
Essentially none	6.7	69.6	64.4	63.0	64.4	64.5	---	---	---	---	---

differences too large to be attributable to sampling variability alone (table 2). Among both racial groups, concern was expressed for about two-thirds of the diagnosed psoriasis conditions.

Of all psoriatics with complaints about their skin condition, nearly three-fourths (71.9 percent) had the problem for more than 5 years; only 6.3 percent had been aware of it for less than 2 years. The psoriasis had been active in the preceding year in all but 25 percent.

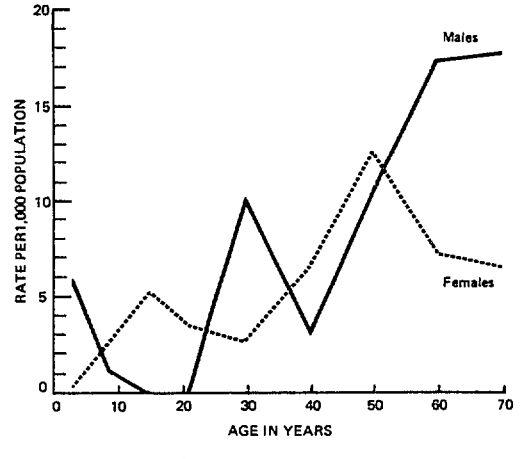
While complicating life and compromising employment and housework for some persons, psoriasis was more likely to be considered a *social* handicap. It was considered such by 23.3 percent of those with significant disease and 38.5 percent of those who were concerned about their condition. Only 7.5 percent of all persons with psoriasis and 11.2 percent of those concerned about their psoriasis complained about interference with employment or house-

Figure 1. PREVALENCE RATES FOR ALL PSORIASIS DIAGNOSED[1] AND PSORIASIS EVOKING COMPLAINTS, BY AGE: UNITED STATES, 1971-74



[1] New York University code 7060.[5]

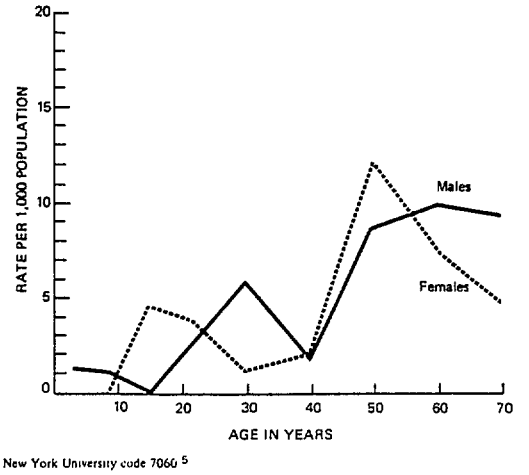
Figure 2. PREVALENCE RATES FOR ALL PSORIASIS DIAGNOSED,[1] BY AGE AND SEX: UNITED STATES, 1971-1974



[1] New York University code 7060.[5]

work. The proportion of those affected with either a social or work handicap increased consistently with age (table 2). Males were somewhat less likely than females to consider their psoriasis a handicap to work, but if they were concerned, they were more apt than females to consider it a social handicap. Of interest despite their fewer numbers, black persons were substantially more likely than white persons to consider their psoriatic condition a handicap to employment or housework and somewhat more likely to complain of a social handicap.

Figure 3. PREVALENCE RATES FOR PSORIASIS EVOKING COMPLAINTS,[1] BY AGE AND SEX: UNITED STATES, 1971-1974



[1] New York University code 7060.[5]

The majority of individuals with psoriatic skin problems considered themselves without a handicap to work (89 percent) or social functioning (61 percent). Among those who did feel a handicap to employment or housework, the handicap was more likely to be thought of as minimal (8.6 percent) than severe (2.5 percent), and the social handicap was almost always considered minimal (93 percent).

Among those examined, psoriasis was more apt to be active rather than inactive (6.2 per 1,000 population against 1.3 per 1,000 for those with inactive disease). For those under 45 years of age, the ratio was 3 to 1, and it increased to 7 active to 1 inactive in individuals over the age of 45 afflicted with psoriasis (table 3).

Psoriasis was found more frequently on both scalp and extremities (2.9 per 1,000 population) than on just the extremities (2.3 per 1,000) or only the scalp (0.5 per 1,000). When psoriasis occurred elsewhere on the body, the trunk alone was more likely to be affected (1.9 per 1,000) than the trunk and seborrheic areas other than the scalp (0.8 per 1,000) or these latter areas alone (0.3 per 1,000).

More than half of those with psoriasis knew of no family history of this problem (5.2 per 1,000 population). Of those reporting a family history, the parents were more likely to have had the condition (2.0 per 1,000 population) than siblings alone (1.1 per 1,000) or both parents and siblings (0.5 per 1,000).

Table 3. Prevalence rates among persons 1-74 years of age for psoriasis by severity, anatomical locations, family history, adequacy of medical care, obstacles to improvement, age and sex, with standard errors for totals: United States, 1971-1974

Selected characteristics related to psoriasis condition	Both sexes				1-74 years		1-74 years		
	1-74 years	1-17 years	18-44 years	45-74 years	Male	Female	Both sexes	Male	Female
	Rate per 1,000 population						Standard error of rate		
Activity of condition									
Active	6.2	1.9	4.2	14.1	7.2	5.3	0.76	1.16	1.05
Inactive	1.3	0.7	1.3	1.8	0.4	2.1	0.45	0.23	0.74
Severity of condition									
Severe	*0.1	-	0.1	0.0	*0.0	*0.1	0.04	0.01	0.08
Moderate	2.1	-	1.6	5.2	2.3	1.9	0.39	0.52	0.59
Minimal	4.9	3.5	3.4	10.2	5.2	4.6	0.63	1.06	1.03
Location of condition									
Scalp only	0.5	0.1	0.1	1.3	0.2	0.7	0.17	0.22	0.28
Extremities only	2.3	0.7	2.1	4.2	2.3	2.2	0.48	0.66	0.67
Both scalp and extremities	2.9	1.1	2.3	6.0	3.0	2.8	0.51	0.59	0.72
Trunk only	1.9	1.1	0.7	4.6	2.0	1.5	0.51	0.88	0.57
Seborrheic areas only	0.3	0.2	0.1	0.9	-	0.7	0.19	0.02	0.38
Both trunk and seborrheic areas	0.8	-	0.6	2.0	0.9	0.8	0.25	0.36	0.38
Family history of psoriasis									
Parent only	2.0	1.1	2.7	2.2	2.1	1.9	0.49	0.56	0.62
Sibling only	1.1	0.4	1.1	1.8	*1.4	0.9	0.46	0.87	0.30
Both parent and sibling	*0.5	*0.3	*0.5	*0.9	*0.4	*0.7	0.27	0.22	0.49
None	5.2	---	---	---	6.2	4.0	0.66	1.26	0.90
Adequacy of medical care for psoriasis									
Adequate	2.4	0.9	2.0	4.6	2.0	2.7	0.38	0.65	0.68
Inadequate	1.0	0.1	0.2	3.0	1.0	0.9	0.32	0.51	0.40
None	0.7	0.2	0.5	1.4	1.1	0.3	0.22	0.42	0.22
Obstacles to improvement for psoriasis complaint									
Did not cooperate with doctor	*0.6	*0.1	*0.4	1.5	*1.0	*0.3	0.03	0.06	0.02
Financial	*0.2	*-	*0.1	*0.6	*0.3	*0.3	0.13	0.09	0.24
Other (too far, no transportation available, etc.)	-	-	-	-	0.4	1.2	0.31	0.03	0.61

The medical care received by those with psoriasis was judged by the examiner as adequate or inadequate according to common norms for therapy provided by dermatologists in outpatient settings. The assessment was more often of adequate treatment (2.4 per 1,000 population) than inadequate or nonexistent treatment (1.7 per 1,000) for all ages combined and for persons under 45 years of age. For those age 45-74 years, however, the care was just as likely to be inadequate or nonexistent as it was to be adequate. Obstacles to improvement were, in most instances, due to lack of time or concern rather than because of financial constraints or inadequate professional advice.

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SYMBOLS

Data not available	---
Category not applicable	...
Quantity zero	-
Quantity more than 0 but less than 0.05	0.0
Figure does not meet standards of reliability or precision	*

TECHNICAL NOTES

The sampling plan for the 65 preselected examination locations throughout the country that were used consecutively in the Health and Nutrition Examination Survey from April 1971 through June 1974 followed a stratified multistage probability design in which a sample of the civilian noninstitutionalized population of the coterminous United States 1-74 years of age was selected. The sample was stratified by geographic region, population density, and rate of population change between 1960 and 1970. Within each stratum, cluster-type sampling was used for selecting households and sample persons to be included in each examination location. The sample design provided for oversampling among persons living in poverty areas, preschool-age children, and women 20-44 years of age.

Of the 28,043 sample persons selected to represent the 194 million persons 1-74 years of age in the U.S. population, 20,749, or 74.0 percent, were examined. This corresponds to an effective response rate of 75.2 percent after adjustment is made for the effect of oversampling among the poor, preschool-age children, and women 20-44 years of age.

This dermatology part of the HANES examination included a complete clinical examination of the skin and surrounding tissue that considered normal variations in texture and color, certain manifestations of aging, and all pathological changes. Significant diagnoses were documented by tissue biopsy to determine malignancy or culture to identify fungi whenever possible. Estimates were made of actinic exposure experienced as well as actinic damage sustained and of occupational risk from irritant and allergic contactants. For an examinee with a significant hand, foot, or generalized problem, the dermatologist made a judgment about the burden to the examinee in terms of discomfort or disability, about care sought, and about the effect expected from current best care possible. The "significant" skin conditions or pathologies recorded are those the examining dermatologist thought should be evaluated by a physician at least once.

Prevalence rates of skin conditions are shown as population estimates; that is, the examination findings for each individual have been "weighted" by the reciprocal of the probability of selecting the person. An adjustment for persons in the sample who were not examined and a poststratified ratio adjustment were also made so that the final sample estimates of population size agree exactly with independent U.S. Bureau of the Census estimates for the civilian noninstitutionalized population of the United States as of November 1, 1972, by color, sex, and age.

advancedata

FROM VITAL & HEALTH STATISTICS OF THE NATIONAL CENTER FOR HEALTH STATISTICS

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE • Public Health Service Office of Health Research, Statistics, and Technology | Number 48 • April 13, 1979

1977 Summary: National Ambulatory Medical Care Survey[1]

During 1977 an estimated 570.0 million office visits—an average of 2.7 per person per year—were made to nonfederally employed, office-based physicians in the conterminous United States. These and other estimates presented in this report are based on data collected in the National Ambulatory Medical Care Survey (NAMCS), a probability sample survey conducted yearly by the Division of Health Resources Utilization Statistics of the National Center for Health Statistics. The survey sample is selected, with the cooperation of the American Medical Association and American Osteopathic Association, from a list of nonfederally employed doctors of medicine and osteopathy who are principally engaged in office-based practice. In its current scope, NAMCS excludes physicians practicing in Alaska and Hawaii and physicians whose specialties are anesthesiology, pathology, or radiology.

Figure 1 is a facsimile of the 1977 Patient Record used by participating physicians to record information obtained during office visits, and it may be useful as a reference as selected aspects of the survey findings are presented.

Caution should be exercised when comparing the 1977 NAMCS data with NAMCS data from previous years. Analysis of the 1977 summary data presented in this report and preliminary analysis of more detailed data indicate that the 1977 results for most data items are similar to those in 1975 and 1976. In 1977, however, several changes were made in the Patient Record that affect comparability between survey years. In particular, items relating to the patient's referral status (item 5) and to the time since onset of complaint or symptom (item 7) were added to the 1977 Patient Record. Items relating to prior visit status (item 9) and seriousness of condition (item 10), which in previous years referred to the patient's reason for visit, now refer to the physician's diagnosis. Diagnostic services (item 11) and therapeutic services (item 12) were previously included together as a single item. In addition, there were a number of changes to the categories listed in items 11 and 12—e.g., "drug prescribed" (1975 and 1976 Patient Records) was changed in 1977 to "drugs (prescription/nonprescription)." In addition to changes in the Patient Record, a new classification was used to code the patient's complaints, symptoms, or other reasons for visit (item 6); therefore, the reason for visit data are not comparable with those of previous years. Further discussion of these changes will be published in the *Vital and Health Statistics* series.

Since the estimates presented in this report are based on a sample rather than on the entire universe of office-based physicians, the data are subject to sampling variability. The "Technical Notes" at the end of this report provide a brief explanation and guidelines for judging the precision of the estimates presented. A more detailed description of the sample design and defintions of certain terms used in NAMCS have been published.[2]

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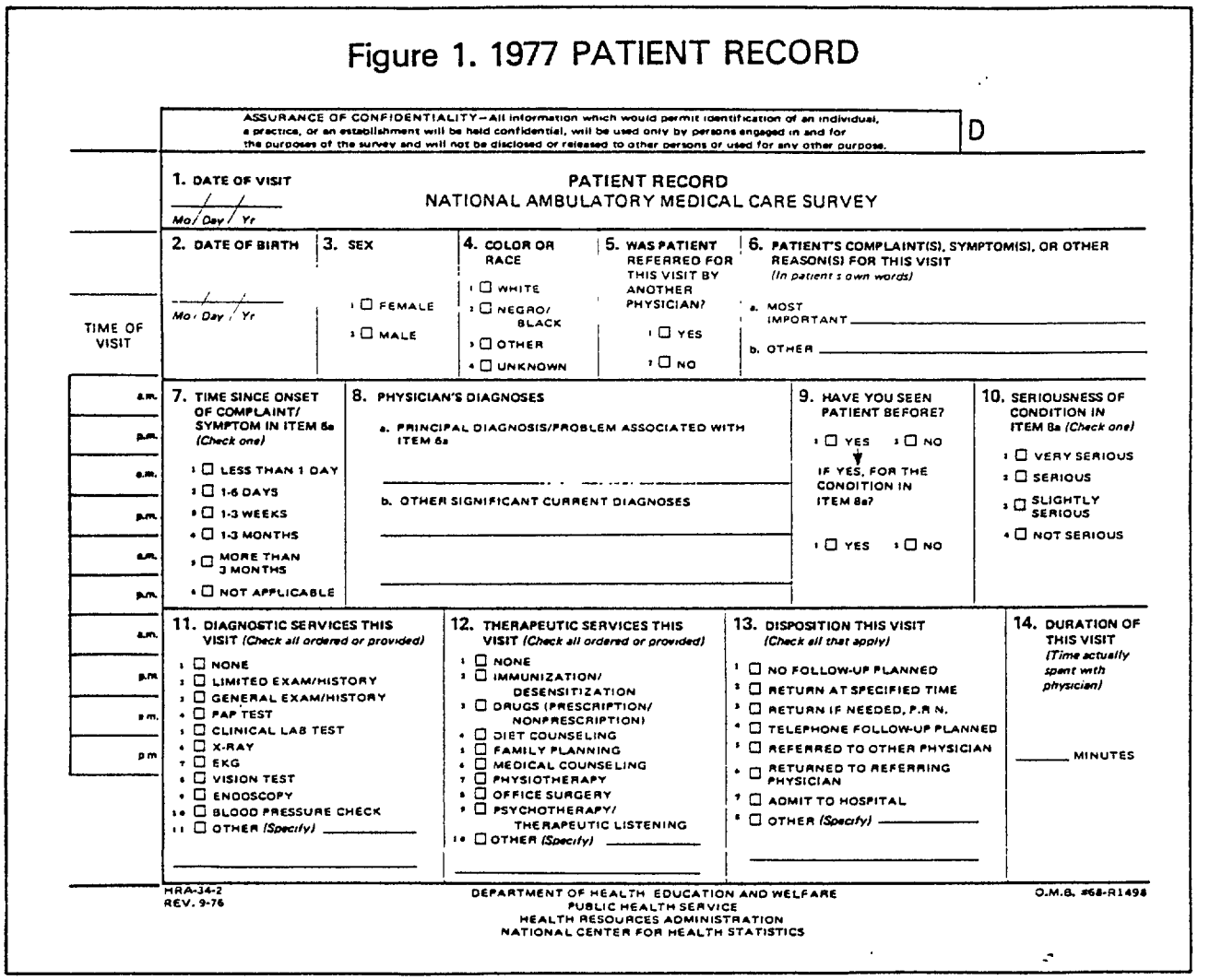
[1]This report was prepared by Trena Ezzati and Thomas McLemore, Division of Health Resources Utilization Statistics.

[2]National Center for Health Statistics: The National Ambulatory Medical Care Survey, 1975 Summary, United States, January-December, 1975, by H. Koch and T. McLemore. *Vital and Health Statistics.* Series 13-No. 33. DHEW Pub. No. (PHS) 78-1784. Public Health Service. Washington. U.S. Government Printing Office, Jan. 1978.

Figure 1. 1977 PATIENT RECORD



ASSURANCE OF CONFIDENTIALITY—All information which would permit identification of an individual, a practice, or an establishment will be held confidential, will be used only by persons engaged in and for the purposes of the survey and will not be disclosed or released to other persons or used for any other purpose.

D

PATIENT RECORD
NATIONAL AMBULATORY MEDICAL CARE SURVEY

1. DATE OF VISIT — Mo / Day / Yr

TIME OF VISIT — a.m. / p.m.

2. DATE OF BIRTH — Mo / Day / Yr

3. SEX
1 ☐ FEMALE
2 ☐ MALE

4. COLOR OR RACE
1 ☐ WHITE
2 ☐ NEGRO/BLACK
3 ☐ OTHER
4 ☐ UNKNOWN

5. WAS PATIENT REFERRED FOR THIS VISIT BY ANOTHER PHYSICIAN?
1 ☐ YES
2 ☐ NO

6. PATIENT'S COMPLAINT(S), SYMPTOM(S), OR OTHER REASON(S) FOR THIS VISIT *(In patient's own words)*
a. MOST IMPORTANT _____
b. OTHER _____

7. TIME SINCE ONSET OF COMPLAINT/SYMPTOM IN ITEM 6a *(Check one)*
1 ☐ LESS THAN 1 DAY
2 ☐ 1-6 DAYS
3 ☐ 1-3 WEEKS
4 ☐ 1-3 MONTHS
5 ☐ MORE THAN 3 MONTHS
6 ☐ NOT APPLICABLE

8. PHYSICIAN'S DIAGNOSES
a. PRINCIPAL DIAGNOSIS/PROBLEM ASSOCIATED WITH ITEM 6a
b. OTHER SIGNIFICANT CURRENT DIAGNOSES

9. HAVE YOU SEEN PATIENT BEFORE?
1 ☐ YES 2 ☐ NO
IF YES, FOR THE CONDITION IN ITEM 8a?
1 ☐ YES 2 ☐ NO

10. SERIOUSNESS OF CONDITION IN ITEM 8a *(Check one)*
1 ☐ VERY SERIOUS
2 ☐ SERIOUS
3 ☐ SLIGHTLY SERIOUS
4 ☐ NOT SERIOUS

11. DIAGNOSTIC SERVICES THIS VISIT *(Check all ordered or provided)*
1 ☐ NONE
2 ☐ LIMITED EXAM/HISTORY
3 ☐ GENERAL EXAM/HISTORY
4 ☐ PAP TEST
5 ☐ CLINICAL LAB TEST
6 ☐ X-RAY
7 ☐ EKG
8 ☐ VISION TEST
9 ☐ ENDOSCOPY
10 ☐ BLOOD PRESSURE CHECK
11 ☐ OTHER *(Specify)* _____

12. THERAPEUTIC SERVICES THIS VISIT *(Check all ordered or provided)*
1 ☐ NONE
2 ☐ IMMUNIZATION/DESENSITIZATION
3 ☐ DRUGS (PRESCRIPTION/NONPRESCRIPTION)
4 ☐ DIET COUNSELING
5 ☐ FAMILY PLANNING
6 ☐ MEDICAL COUNSELING
7 ☐ PHYSIOTHERAPY
8 ☐ OFFICE SURGERY
9 ☐ PSYCHOTHERAPY/THERAPEUTIC LISTENING
10 ☐ OTHER *(Specify)* _____

13. DISPOSITION THIS VISIT *(Check all that apply)*
1 ☐ NO FOLLOW-UP PLANNED
2 ☐ RETURN AT SPECIFIED TIME
3 ☐ RETURN IF NEEDED, P.R.N.
4 ☐ TELEPHONE FOLLOW-UP PLANNED
5 ☐ REFERRED TO OTHER PHYSICIAN
6 ☐ RETURNED TO REFERRING PHYSICIAN
7 ☐ ADMIT TO HOSPITAL
8 ☐ OTHER *(Specify)* _____

14. DURATION OF THIS VISIT *(Time actually spent with physician)*
_____ MINUTES

HRA-34-2
REV. 9-76

DEPARTMENT OF HEALTH EDUCATION AND WELFARE
PUBLIC HEALTH SERVICE
HEALTH RESOURCES ADMINISTRATION
NATIONAL CENTER FOR HEALTH STATISTICS

O.M.B. #68-R1498

DATA HIGHLIGHTS

Physician Characteristics

Approximately half of the 570.0 million office visits made during 1977 were to general and family practitioners and to internists (table 1). Visits to pediatricians accounted for an additional 10 percent of all visits. The distribution of visits according to the physician's type of practice shows that approximately 59 percent of all visits were to solo practitioners and about 41 percent were to physicians engaged in a multiple member practice. Table 1 also shows that the proportion of visits to physicians' offices in metropolitan areas (76 percent) exceeded the proportion in nonmetropolitan areas (24 percent).

Patient Characteristics

The data in table 2 show that visits by white persons accounted for approximately 90 percent of all office visits. The office visit rate for white persons (2.8 visits per person per year) was significantly higher than the rate for all other races (2.0 visits per person per year).

The visit rate by age varied from a low of 2.0 visits per year for persons under 15 years of age to a high of 4.1 visits per year for persons 65 years and over. Annual office visit rates by sex and age show that the rate, in general, tends to

Table 1. Number and percent distribution of office visits, by physician specialty and type and location of practice: United States, 1977

Physician characteristic	Number of visits in thousands	Percent distribution
All visits	570,052	100.0
Physician specialty		
General and family practice	222,919	39.1
Medical specialties	155,501	27.3
Internal medicine	64,959	11.4
Pediatrics	54,762	9.6
Other	35,780	6.3
Surgical specialties	167,927	29.5
General surgery	36,124	6.3
Obstetrics and gynecology	49,273	8.6
Other	82,530	14.5
Other specialties	23,705	4.2
Psychiatry	16,197	2.8
Other	7,508	1.3
Type of practice		
Solo	335,261	58.8
Other[1]	234,791	41.2
Location of practice		
Metropolitan	434,739	76.3
Nonmetropolitan	135,313	23.7

[1]Includes partnership and group practices.

Table 2. Number, percent distribution, and number of office visits per person per year, by race, age, sex and age: United States, 1977

Patient characteristic	Number of visits in thousands	Percent distribution	Number of visits per person per year
All visits	570,052	100.0	2.7
Race			
White	514,788	90.3	2.8
All other races	55,264	9.7	2.0
Age			
Under 15 years	103,756	18.2	2.0
15-24 years	85,761	15.0	2.2
25-44 years	146,329	25.7	2.7
45-64 years	142,163	24.9	3.3
65 years and over	92,043	16.2	4.1
Sex and age			
Female	345,187	60.5	3.2
Under 15 years	50,229	8.8	2.0
15-24 years	56,055	9.8	2.8
25-44 years	97,450	17.1	3.4
45-64 years	84,241	14.8	3.7
65 years and over	57,212	10.0	4.4
Male	224,865	39.5	2.2
Under 15 years	53,527	9.4	2.1
15-24 years	29,706	5.2	1.5
25-44 years	48,880	8.6	1.8
45-64 years	57,922	10.2	2.8
65 years and over	34,831	6.1	3.8

increase with age for both males and females. The visit rate for females exceeded the rate for males in all but the youngest age group.

Visit Characteristics

Table 3 shows the number and percent distribution of office visits by patient's prior visit status, referral status, and time since onset of complaint or symptom.

Referral status.—Information from item 5 of the Patient Record reveals that approximately 5 percent of all visits were the result of referrals from another physician. Approximately 26 percent of all new patient visits were referrals.

Time since onset of complaint or symptom.—About 4 percent of all visits were for problems with an onset of less than 24 hours, indicating the nonemergency nature of most office visits. An estimated 22 percent of the patient problems had an onset of less than 1 week, and approximately 30 percent had an onset of 3 months or more.

Prior visit status.—Approximately 85 percent of the visits made to office-based physicians were by patients who had seen the physician before (old patients). Furthermore, the majority of visits (60 percent) were made by old patients with old problems, i.e., problems which had been previously treated by the physician.

Reason for visit.—Information in item 6 of the Patient Record (figure 1) represents the reasons for visiting physicians' offices as ex-

Table 3. Number and percent distribution of office visits, by patient's referral status, time since onset of complaint or symptom, and patient's prior visit status: United States, 1977

Visit characteristic	Number of visits in thousands	Percent distribution
All visits	570,052	100.0
Referral status		
Referred by another physician	28,412	5.0
Not referred by another physician	541,640	95.0
Time since onset of complaint or symptom		
Less than 1 day	23,405	4.1
1-6 days	127,064	22.3
1-3 weeks	78,716	13.8
1-3 months	67,107	11.8
3 months or more	169,692	29.8
Not applicable[1]	104,068	18.3
Prior visit status		
New patient	87,230	15.3
Old patient	482,822	84.7
New problem	142,037	24.9
Old problem	340,785	59.8

[1]Includes chiefly visits not involving a symptom or complaint, e.g., annual examination, well-baby examination.

pressed by patients in their own words. These data have been classified and coded according to the Reason for Visit Classification for Ambulatory Care (RVC), which was used for the first time during the 1977 NAMCS. The RVC utilizes a modular structure with the following modules:

(1) symptom,
(2) disease,
(3) diagnostic, screening, and preventive,
(4) treatment,
(5) injuries and adverse effects,
(6) test results, and
(7) administrative.

Discussion of the development of the RVC and a detailed description of the seven modules have been published in Series 2, No. 78 of *Vital and Health Statistics.*[3] Table 4 presents data on the patient's *principal* reason for visit, i.e., problems or complaints listed first in item 6 of the Patient Record.

Principal diagnosis.—Table 5 presents the number amd percent distribution of office visits according to the physician's principal diagnosis. This diagnosis refers to the one listed first in item 8 of the Patient Record. The diagnostic data in table 5 are grouped by the major classifications of the *Eighth Revision International Classification of Diseases Adapted for Use in the United States* (ICDA).[4] The ICDA category Special conditions and examinations without illness accounted for the largest proportion of visits (17 percent), and diseases of the respiratory, circulatory, and nervous systems accounted for approximately one-third of all visits.

Diagnostic and therapeutic services.—Information on various types of diagnostic and therapeutic services that may be ordered or provided during a visit is presented in table 6. A limited history or examination was the most frequent diagnostic service ordered or provided (56 percent), and blood pressure checks were the second most frequent diagnostic service ordered or provided (34 percent). A Pap test was ordered or provided during about 5 percent of all visits; however, this test was ordered or provided for about 9 percent of the visits by women. Among the therapeutic services, a prescription or nonprescription drug was ordered or provided during about 54 percent of the visits. Once again caution should be exercised when comparing this estimate with estimates from previous survey years due to changes in the 1977 Patient Record.

Seriousness of condition.—Table 7 presents information on the physician's judgment of the seriousness of the patient's problem in terms of

[3]National Center for Health Statistics: A reason for visit classification for ambulatory care, by D. Schneider, L. Appleton, and T. McLemore. *Vital and Health Statistics.* Series 2-No. 78. DHEW Pub. No. (PHS) 79-1352. Public Health Service. Washington. U.S. Government Printing Office, Feb. 1979.

[4]National Center for Health Statistics: *Eighth Revision International Classification of Diseases, Adapted for Use in the United States.* PHS Pub. No. 1693. Public Health Service. Washington. U.S. Government Printing Office, 1967.

Table 4. Number and percent distribution of office visits, by the patient's principal reason for visit and RVC code: United States, 1977

Principal reason for visit and RVC code[1]		Number of visits in thousands	Percent distribution
All reasons for visit		570,052	100.0
Symptom module	S001-S999	318,849	55.9
General symptoms	S001-S099	43,734	7.7
Symptoms referable to psychological and mental disorders	S100-S199	15,337	2.7
Symptoms referable to the nervous system (excluding sense organs)	S200-S259	19,250	3.4
Symptoms referable to the cardiovascular and lymphatic systems	S260-S299	3,580	0.6
Symptoms referable to the eyes and ears	S300-S399	31,639	5.5
Symptoms referable to the respiratory system	S400-S499	62,140	10.9
Symptoms referable to the digestive system	S500-S639	27,642	4.9
Symptoms referable to the genitourinary system	S640-S829	31,478	5.5
Symptoms referable to the skin, nails, and hair	S830-S899	30,501	5.4
Symptoms referable to the musculoskeletal system	S900-S999	53,548	9.4
Disease module	D001-D999	53,478	9.4
Diagnostic, screening, and preventive module	X100-X599	104,445	18.3
Treatment module	T100-T899	48,409	8.5
Injuries and adverse effects module	J001-J999	24,952	4.4
Test results module	R100-R700	2,615	0.5
Administrative module	A100-A140	10,403	1.8
Other[2]	U990-U999	6,902	1.2

[1] Reason for visit groups and codes are based on *A Reason for Visit Classification for Ambulatory Care.*
[2] Includes blanks; problems and complaints, not elsewhere classified; entries of "none," and illegible entries.

Table 5. Number and percent distribution of office visits, by principal diagnoses and ICDA code: United States, 1977

Principal diagnosis and ICDA code[1]		Number of visits in thousands	Percent distribution
All diagnoses		570,052	100.0
Infective and parasitic diseases	000-136	22,668	4.0
Neoplasms	140-239	14,286	2.5
Endocrine, nutritional, and metabolic diseases	240-279	24,287	4.3
Mental disorders	290-315	24,522	4.3
Diseases of the nervous system and sense organs	320-389	48,291	8.5
Diseases of the circulatory system	390-458	54,702	9.6
Diseases of the respiratory system	460-519	82,466	14.5
Diseases of the digestive system	520-577	18,451	3.2
Diseases of the genitourinary system	580-629	36,473	6.4
Diseases of the skin and subcutaneous tissue	680-709	31,910	5.6
Diseases of the musculoskeletal system	710-738	32,983	5.8
Symptoms and ill-defined conditions	780-796	25,695	4.5
Accidents, poisonings, and violence	800-999	43,761	7.7
Special conditions and examinations without sickness	Y00-Y13	96,009	16.8
All other diagnoses[2]		13,550	2.4

[1] Diagnostic groups and codes are based on *Eighth Revision International Classification of Diseases, Adapted for Use in the United States*, ICDA.
[2] Includes 280-289, diseases of the blood and blood-forming organs; 630-678, complications of pregnancy, childbirth, and the puerperium; 740-759, congenital anomalies; 760-779, certain causes of perinatal morbidity and mortality; blank diagnosis; noncodable diagnosis; and illegible diagnosis.

Table 6. Number and percent of office visits, by diagnotic and therapeutic services ordered or provided: United States, 1977

Diagnostic and therapeutic services ordered or provided	Number of visits in thousands	Percent of visit
Diagnostic services		
None	68,301	12.0
Limited examination or history	321,040	56.3
General examination or history	127,515	22.4
Pap test	30,620	5.4
Clinical lab test	122,013	21.4
X-ray	44,662	7.8
Electrocardiogram	17,333	3.0
Vision test	23,045	4.0
Endoscopy	6,945	1.2
Blood pressure check	193,889	34.0
Other	25,010	4.4
Therapeutic services		
None	109,077	19.1
Immunization or desensitization	37,576	6.6
Drugs (prescription or nonprescription)	305,607	53.6
Diet counseling	39,197	6.9
Family planning	8,372	1.5
Medical counseling	117,157	20.6
Physiotherapy	18,584	3.3
Office surgery	45,029	7.9
Psychotherapy or therapeutic listening	30,589	5.4
Other	15,624	2.7

Table 7. Number and percent distribution of office visits, by seriousness of condition, and disposition and duration of visits: United States, 1977

Visit characteristic	Number of visits in thousands	Percent distribution
All visits	570,052	100.0
Seriousness of condition		
Serious and very serious	104,118	18.3
Slightly serious	175,252	30.7
Not serious	290,682	51.0
Disposition of visit[1]		
No followup	63,546	11.2
Return at specified time	346,374	60.8
Return if needed	129,020	22.6
Telephone followup planned	17,961	3.2
Referred to other physician	14,423	2.5
Returned to referring physician	4,660	0.8
Admit to hopsital	11,095	2.0
Other	7,129	1.3
Duration of visit		
0 minutes[2]	13,038	2.3
1-5 minutes	83,263	14.6
6-10 minutes	170,787	30.0
11-15 minutes	152,860	26.8
16-30 minutes	116,961	20.5
31 minutes or more	33,143	5.8

[1]Does not add to 100.0 since more than one disposition was possible.
[2]Represents visits in which there was no face-to-face contact between the patient and the physician.

the extent of impairment that might result if no care were available. Fifty-one percent of all visits involved conditions considered "not serious," while less than 1 in every 5 visits involved conditions categorized as "serious" or "very serious." A large proportion of the "not serious" visits were for routine prenatal care, immunizations, routine eye examinations, periodic checkups, and other types of preventive health care.

Disposition of visit.—Data on disposition show that the majority of office visits involved some type of scheduled followup. At about 61 percent of the visits the patient was advised to return at a specified time, while at 2 percent admission to a hospital was the result (table 7).

Duration of visit.—Duration of visit represents only that amount of time spent by the patient in face-to-face contact with the physician. About 47 percent of the visits had a duration of 10 minutes or less. The mean duration of all visits was 15.4 minutes (table 7).

TECHNICAL NOTES

SOURCE OF DATA: The information presented in this report is based on data collected in the National Ambulatory Medical Care Survey (NAMCS) during 1977. The target population of NAMCS encompasses office visits within the conterminous United States made by ambulatory patients to physicians who are principally engaged in office practice. The National Opinion Research Center, under contract to the National Center for Health Statistics, was responsible for the survey's field operations.

SAMPLE DESIGN: The NAMCS utilizes a multistage probability design that involves samples of primary sampling units (PSU's), physician practices within PSU's, and patient visits within practices. For 1977 a sample of 3,000 non-Federal office-based physicians was selected from master files maintained by the American Medical Association and American Osteopathic Association. The physician response rate for 1977 was 77.5 percent. Sampled physicians were requested to complete Patient Records (figure 1) for a systematic random sample of office visits taking place within their practice during a randomly assigned weekly reporting period. During 1977, 51,044 Patient Records were completed by sampled physicians.

SAMPLING ERRORS: The standard error is primarily a measure of the sampling variability that occurs by chance because only a sample, rather than the entire universe, is surveyed. The relative standard error of an estimate is obtained by dividing the standard error of the estimate by the estimate itself and is expressed as a percentage of the estimate. Relative standard errors of selected aggregate statistics are shown in table I. The standard errors appropriate for estimated percentages of visits are shown in table II.

ROUNDING OF NUMBERS: Estimates of office visits have been rounded to the nearest thousand. For this reason detailed figures within tables do not always add to totals. Percents were calculated on the basis of original, unrounded figures and will not necessarily agree precisely with percents which might be calculated from rounded data.

DEFINITIONS: An *ambulatory patient* is an individual presenting himself for personal health services who is neither bedridden nor currently admitted to any health care institution on the premises.

Table I. Approximate relative standard errors of estimated number of office visits, NAMCS 1977

Estimated number of office visits in thousands	Relative standard error in percent
500	29.0
600	26.5
1,000	20.7
2,000	14.9
5,000	9.9
10,000	7.6
20,000	6.1
50,000	4.9
100,000	4.5
500,000	4.1

Example of use of table: An aggregate estimate of 75,000,000 visits has a relative standard error of 4.7 percent or a standard error of 3,525,000 visits (4.7 percent of 75,000,000).

Table II. Approximate standard errors of percentages of estimated number of office visits, NAMCS 1977

Base of percentage (number of visits in thousands)	Estimated percentage					
	1 or 99	5 or 95	10 or 90	20 or 80	30 or 70	50
	Standard error in percentage points					
500	2.9	6.3	8.6	11.5	13.2	14.4
600	2.6	5.7	7.9	10.5	12.0	13.1
1,000	2.0	4.4	6.1	8.1	9.3	10.2
2,000	1.4	3.1	4.3	5.7	6.6	7.2
5,000	0.9	2.0	2.7	3.6	4.2	4.5
10,000	0.6	1.4	1.9	2.6	2.9	3.2
20,000	0.5	1.0	1.4	1.8	2.1	2.3
50,000	0.3	0.6	0.9	1.1	1.3	1.4
100,000	0.2	0.4	0.6	0.8	0.9	1.0
500,000	0.1	0.2	0.3	0.4	0.4	0.5

Example of use of table: An estimate of 30 percent based on an aggregate of 15,000,000 visits has a standard error of 2.5 percent. The relative standard error of 30 percent is 8.3 percent (2.5 percent ÷ 30 percent).

An *office* is a place that the physician identifies as a location for his ambulatory practice. Responsibility over time for patient care and professional services rendered there generally resides with the individual physician rather than an institution.

A *visit* is a direct personal exchange between an ambulatory patient and a physician or a staff member working under the physician's supervision for the purpose of seeking care and rendering health services.

A *physician* is a duly licensed doctor of medicine (M.D.) or doctor of osteopathy (D.O.) currently in office-based practice who spends time in caring for ambulatory patients. Excluded from NAMCS are physicians who are hospital based; physicians who specialize in anesthesiology, pathology, or radiology; physicians who are Federally employed; physicians who treat only institutionalized patients; physicians employed full time by an institution; and physicians who spend no time seeing ambulatory patients.

SYMBOLS

Data not available	...
Category not applicable	...
Quantity zero	-
Quantity more than 0 but less than 0.05	0.0
Figure does not meet standards of reliability or precision	*

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FROM VITAL & HEALTH STATISTICS OF THE NATIONAL CENTER FOR HEALTH STATISTICS

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Office Visits for Family Planning, National Ambulatory Medical Care Survey: United States, 1977[1]

According to data collected in the National Ambulatory Medical Care Survey (NAMCS), an estimated 11 million visits to office-based physicians included a family planning service, either as one of the stated purposes of the visit or as an adjunct service when patients visited for other problems.

The NAMCS is a sample survey conducted annually by the Division of Health Resources Utilization Statistics in the National Center for Health Statistics. The estimates in this report are based on information recorded by participating physicians on brief encounter forms (Patient Record, see Advance Data No. 48, April 13, 1979) during sample office visits. A brief description of the sample design and an explanation of the sampling errors associated with selected aggregate statistics may be found in the Technical Notes of this report.

Data on family planning services are also reported from the National Survey of Family Growth (NSFG), based on a sample of currently married women between the ages of 15 to 44 years, with a family planning visit in the last 3 years; and by the National Reporting System for Family Planning Services (NRSFPS), based on reports by a sample of organized family planning service sites.[2,3] Because of the differences in the populations sampled, and differences in the definitions and collection procedures, statistics on family planning visits from these several data systems differ. According to NSFG statistics for 1976, an estimated 11,153,000 women in the age range 15-44 years had visited their own physician within the last 3 years for family planning services. Provisional data from NRSFPS for 1976 indicated about 5,427,000 visits by women of all ages to organized family planning clinics.

In NAMCS, patients' principal problems, complaints, or other reasons for visit, expressed as nearly as possible in the patient's own words, are recorded by the physician on the Patient Record. From 1973 to 1976 these reasons for visit were coded according to a symptom classification developed for use at the inception of the survey.[4] However, this classification scheme did not provide much detail in the area of family planning. The opportunity to obtain more complete information was presented by the 1977 revision of the classification.[5] The new taxonomy delineated, among other presenting patient problems and complaints, the most commonly presented types of family planning reasons for visiting physicians given by patients.

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[1]This report was prepared by Beulah K. Cypress, Ph.D., Division of Health Resources Utilization Statistics.

[2]National Center for Health Statistics: Use of family planning services by currently married women 15-44 years of age, United States, 1973 and 1976, by G.E. Hendershot. *Advance Data from Vital and Health Statistics*, No. 45. DHEW Pub. No. (PHS) 79-1250. Public Health Service. Hyattsville, Md. Feb. 7, 1979.

[3]National Center for Health Statistics, Provisional Data from the National Reporting System for Family Planning Services, January 1976-December 1976, (mimeo).

[4]National Center for Health Statistics: The National Ambulatory Medical Care Survey: Symptom classification, by S. Meads and T. McLemore. *Vital and Health Statistics*. Series 2-No. 63. DHEW Pub. No. (HRA) 74-1337. Health Resources Administration. Washington. U.S. Government Printing Office, May 1974.

[5]National Center for Health Statistics: *A reason for visit classification for ambulatory care*, by D. Schneider, L. Appleton, and T. McLemore. *Vital and Health Statistics*. Series 2-No. 78. DHEW Pub. No. (PHS) 79-1352. Public Health Service. Washington. U.S. Government Printing Office. In press.

This permitted a clearer identification of family planning visits than was possible in earlier national surveys of ambulatory care in physicians' offices. Also in 1977 for the first time,"family planning" was included in the therapeutic services listed on the Patient Record.

In NAMCS, a family planning therapeutic service is defined as services, counseling, or advice which might enable patients to determine the number and spacing of their children. It includes both contraception and infertility services. Information from this item was used to estimate the number of visits which included family planning services even though the physician did not record that as the patient's reason for visiting the physician.

In about half of the 11 million family planning visits patients expressed a reason for visiting the physician which was related to family planning. In the other half, reasons other than family planning were given but, in addition to other medical care, some kind of family planning therapeutic service was rendered during the visit (table 1). It is not known whether some patients were reluctant to *say* that family planning was their reason for the visit or whether the subject, possibly related to the presenting problem, arose during the course of the visit. But for the purpose of estimating the extent of utilization of private physicians for family planning services, these encounters were considered "family planning" visits.

It was postulated that teenagers might be less inclined than older patients to cite family planning as a reason for going to the physician's office. Apparently this was not the case since differences between the proportions of teenagers' visits in which they cited a reason and those in which they simply received a service were not statistically significant. On the other hand, patients 45 years and over *were* less likely to give than not give family planning as a reason when they received a family planning service during the visit. This may or may not indicate that for this group of patients family planning was probably incidental to their purpose in visiting the physician.

Table 1. Number and percent distribution of office visits for family planning with a family planning reason for visit or with a family planning therapeutic service included, by patient age and sex: United States, 1977

Age and sex	Family planning visits	
	Reason for visit stated	Therapeutic service included
Total	5,662	5,341
Age	Percent distribution	
All ages	100.0	100.0
15-19 years	11.6	10.1
20-34 years	76.3	68.9
35-44 years	10.0	10.2
45 years and over	*2.0	10.8
Sex		
Female	90.8	94.9
Male	9.2	5.1

PATIENT SEX, RACE, AND AGE

The ratio of about 13 visits by women to one visit by men was not unexpected (table 2). However, the fact that about 791,000 family planning visits to physicians were made by men provides a new perspective on the traditionally female-oriented approach to discussion of family planning visits. Because of the paucity of data on family planning visits by men, most published reports have dealt exclusively with visits by women. Unpublished data from NRSFPS reveal only about 39,000 visits by men in some 4,800 organized family planning service sites during 1976.[3] While the NAMCS visit rate of about 10 visits by men for each 1,000 males over 15 years in the population is quite low compared to that of females (about 122 per 1,000), this may mark the beginning of a trend and bears scrutiny in the future.

Available data sources indicate that white patients tend to visit private physicians for family planning services at a higher rate than black patients, while black patients visit organized family planning clinics at a higher rate than white patients do. Of the white female respondents in NSFG with a family planning visit in the last 3 years, 86 percent reported visiting a private physician; but only 63 percent of the

Table 2. Number, percent distribution, and rate of office visits for family planning, by patient sex, race, and age: United States, 1977

Sex, race, and age	Number in thousands	Percent distribution	Visit rate per 1,000[1]
Total	11,003	100.0	68.9
Sex			
Female	10,213	92.8	121.6
Male	791	7.2	10.5
Race			
White	9,998	90.9	71.3
Black and all other	1,006	9.1	51.9
Age			
15-19 years	1,199	10.9	57.1
20-34 years	8,000	72.7	158.9
35-44 years	1,110	10.1	48.4
45 years and over	695	6.3	10.6

[1]Based on the civilian noninstitutionalized population 15 years and over.

black respondents reported the location as the physician's office.[2] On the other hand, organized family planning clinics which reported to NRSFPS showed an enrollment rate of roughly 144 per 1,000 black women 15-44 years of age in the population, compared with only about 44 per 1,000 white women of the same age.[3] The NAMCS data also disclosed a differing utilization pattern by race with white women visiting at a rate of 71 per 1,000, compared with 52 per 1,000 black and other women. The reader should note that the NAMCS *visit* rate includes initial and return visits, some of which may be by the same patient; but the NRSFPS enrollment rate is based on an unduplicated count of patients.

Most family planning visits to office-based physicians were made by patients of both sexes in the age range 20-34 years (73 percent), representing an average of about 159 visits for each 1,000 persons of that age in the United States (table 2). Patients aged 15-19 years accounted for about 11 percent of the total with a visit rate of about 57 per 1,000. (Visit rates by age groups are higher when calculated for women only. A forthcoming series report on "Office Visits by Women" will include family planning data for these groups.)

GEOGRAPHIC DISTRIBUTION

Proportions of family planning visits did not differ significantly among the four geographic regions when sampling variability was taken into account (table 3), approximating the regional proportions of all NAMCS visits. Similarly, visits in metropolitan areas exceeded those in nonmetropolitan areas, reflecting the high concentration of physicians' offices in metropolitan areas.

Table 3. Number, percent distribution, and rate of office visits for family planning, by geographic region and metropolitan or nonmetropolitan area: United States, 1977

Region and area	Number in thousands	Percent distribution	Rate per 1,000
Total	11,003	100.0	68.9
Region			
Northeast	2,589	23.5	70.6
North Central	2,485	22.6	58.0
South	3,553	32.3	68.1
West	2,377	21.6	85.0
Area			
Metropolitan	9,019	82.0	82.7
Nonmetropolitan	1,984	18.0	39.2

PHYSICIAN SPECIALITY

Most family planning visits (65 percent) occurred in the offices of obstetrician-gynecologists, with an additional 26 percent made to general and family practitioners (GFP) (table 4). Male patients chiefly visited GFP's and urologists. The patient's age did not appear to make a difference in the choice of physician by specialty.

Table 4. Number and percent distribution of office visits for family planning by most visited physician specialty, according to patient age and sex: United States, 1977

Age and sex	Number in thousands	Total	Physician specialty			
			General and family practice	Obstetrics and gynecology	Urological surgery	All other specialities
All ages	11,003	100.0	25.8	64.8	3.1	6.3
Age			Percent distribution			
15-19 years	1,199	100.0	37.5	58.5	0.0	* 4.0
20-34 years	8,000	100.0	23.1	69.3	*3.5	* 3.0
35-44 years	1,110	100.0	*28.0	*58.8	*4.6	8.6
45 years and over	695	100.0	*32.7	*32.6	*1.6	*33.1
Sex						
Female	10,213	100.0	24.8	69.8	* 0.1	* 5.3
Male	791	100.0	*38.3	-	*42.0	*19.7

PATIENT'S REASON FOR VISIT

About 93 percent of the 5.7 million visits by patients who specifically stated they were visiting for family planning or related reasons fell chiefly in three major groups: those who visited for counseling, examinations, and general advice; those who required insertion, removal, or checkup of contraceptive devices; and those who visited for the prescription or renewal of contraceptive medication (table 5). (Predictably, it was observed that teenagers were proportionately more likely to visit for contraceptive medication than they were for a contraceptive device.)

Surgical sterilization of patients of both sexes was performed during the visits for a relatively small number of patients. Of the estimated 240,000 such visits, about 80 percent were for vasectomies. Patients electing sterilization ranged from 20 to 44 years of age.

Patients who visited seeking abortions or for whom abortions were performed during

Table 5. Number and percent distribution of office visits with a family planning reason for visit by reason category: United States, 1977

Reason category and NAMCS code[1]		Number in thousands	Percent distribution
Total		5,662	100.0
Family planning, N.O.S.[2]	X500	2,085	36.8
Contraceptive device[3]	X510	1,604	28.3
Contraceptive medication	X505	1,569	27.7
Other reasons for visit[4]	X515, X520, X525, X530	405	7.1

[1]Based on a reason for visit classification developed for use in NAMCS (see reference 5).

[2]Includes counseling, examinations, and general advice regarding; birth control, N.O.S.; unwanted pregnancy; contraceptive, N.O.S.; sterilization; infertility; genetics; contraception followup, N.O.S.

[3]Includes IUD insertion, removal, or checkup; diagphragm insertion, removal, or checkup.

[4]Includes evaluation for and arrangement for abortion, wants abortion, sterilization (this visit), abortion (this visit), and artificial insemination.

NOTE: N.O.S. = not otherwise specified.

Table 6. Number and percent distribution of office visits which included a family planning therapeutic service but not a family planning reason for visit, by most common principal reason for visit: United States, 1977

Principal reason for visit and NAMCS code[1]	Number in thousands	Percent distribution
Total	5,341	100.0
Gynecological examination X225	964	18.1
Postpartum examination X215	902	16.9
Prenatal examination, routine X205	787	14.7
Symptoms referable to the genitourinary system S640-S829	668	12.5
Pap smear X365	* 336	6.3
All other reasons for visit residual	1,684	31.5

[1]Based on a reason for visit classification developed for use in NAMCS (see reference 5).

the visit were relatively rare in physicians' offices.

It was posited that for the 5.3 million visits in which patients received a family planning therapeutic service without having directly expressed family planning as their reason for visit, the primary reasons would cover the broad array of problems usually found in office medical practice (e.g., respiratory or circulatory problems). However, those visits were more likely to be associated with reasons involving certain examinations and care of genitourinary problems than they were with reasons related to other problems. The types of care sought by patients who also received family planning therapeutic services are listed in table 6. It is of interest to note that 15 percent of these visits were for routine prenatal examinations and 17 percent for postpartum examinations, indicating that family planning was likely to be a consideration both during pregnancy and following delivery.

DIAGNOSTIC AND THERAPEUTIC SERVICES

Compared to NAMCS visits for all reasons, patients visiting for family planning received proportionately more Pap tests, blood pressure checks, clinical laboratory tests, and general examinations (table 7).

The rate of Pap tests performed during family planning visits in physicians' offices (about 46 percent) was similar to that of the organized family planning clinics measured by NRSFPS.[3] However, blood pressure checks were proportionately more frequent during clinic visits (about 78 percent) than they were during physician visits estimated in NAMCS (about 58 percent).

Patient age was apparently not a determining factor in the physician's provision of services, since for each service shown in table 7 the differ-

Table 7. Number of NAMCS visits and number and percent of family planning office visits for patients 15 years and over, by most common diagnostic and therapeutic service: United States, 1977

Most common diagnostic and therapeutic service	All NAMCS visits	Family planning visits
Total	466,296	11,003
	Percent of visits	
Limited examination and/or history	57.6	49.5
General examination and/or history	20.2	36.2
Pap test	6.5	45.8
Clinical laboratory test	22.4	33.9
Blood pressure check	40.0	58.2
Drugs (prescription and nonprescription)	54.5	42.8
Diet counseling	7.2	7.7
Medical counseling	20.9	22.1

ences in the proportions by age were not statistically significant. However, the patient's reason for visit may have influenced the use of some services during some visits. General examinations, Pap tests, and clinical laboratory tests were proportionately more frequent when patients visited for contraceptive medication than when a contraceptive device was involved (table 8). However, Pap tests are usually performed at a visit prior to the insertion of a contraceptive device and, thus, such tests may have been included in a visit with a different reason. Differences in the proportions of other services were not statistically significant.

Table 8. Number and percent of visits for contraceptive medication and for contraceptive device, by selected diagnostic services: United States, 1977

Diagnostic service	Contraceptive medication	Contraception device
Total	1,569	1,604
	Percent of visits	
Limited examination and/or history	49.1	66.3
General examination and/or history	37.4	*14.6
Pap test	66.9	*24.0
Clinical laboratory test	36.0	*14.4
Blood pressure check	57.9	36.6

SYMBOLS

Data not available	---
Category not applicable	...
Quantity zero	-
Quantity more than 0 but less than 0.05	0.0
Figure does not meet standards of reliability or precision	*

TECHNICAL NOTES

SOURCE OF DATA: The information presented in this report is based on data collected in the National Ambulatory Medical Care Survey (NAMCS) during 1977. The target population of NAMCS encompasses office visits within the conterminous United States made by ambulatory patients to physicians who are principally engaged in office practice. The National Opinion Research Center, under contract to the National Center for Health Statistics, was the organization responsible for the survey's field operations.

SAMPLE DESIGN: NAMCS utilizes a multistage probability design that involves samples of primary sampling units (PSU's), physician practices within PSU's, and patient visits within practices. For 1977 a sample of 3,000 non-Federal office-based physicians was selected from master files maintained by the American Medical Association and American Osteopathic Association. The physician response rate for 1977 was 77.5 percent. Sample physicians were requested to complete Patient Records (brief encounter forms) for a systematic random sample of office visits taking place within their practice during a randomly assigned weekly reporting period. During 1977, 51,044 Patient Records were completed by sample physicians.

SAMPLING ERRORS: The standard error is primarily a measure of the sampling variability that occurs by chance because only a sample, rather than the entire universe is surveyed. The relative standard error of an estimate is obtained by dividing the standard error of the estimate by the estimate itself and is expressed as a percent of the estimate. Relative standard errors of selected aggregate statistics are shown in table I. The standard errors appropriate for estimates percentages of visits are shown in table II.

DEFINITIONS: An *ambulatory patient* is an individual presenting himself for personal health services who is neither bedridden nor currently admitted to any health care institution on the premises.

An *office* is a place that the physician identifies as a location for his ambulatory practice. Responsibility over time for patient care and professional services rendered there generally resides with the individual physician, rather than an institution.

Table I. Approximate relative standard error of estimated number of office visits, NAMCS 1977

Estimated number of office visits in thousands	Relative standard error in percent
500	29.0
600	26.5
1,000	20.7
2,000	14.9
5,000	9.9
10,000	7.6
20,000	6.1
50,000	4.9
100,000	4.5
500,000	4.1

Example of use of table: An aggregate estimate of 75,000,000 visits has a relative standard error of 4.7 percent or a standard error of 3,525,000 visits (4.7 percent of 75,000,000).

Table II. Approximate standard errors of percentages of estimated number of office visits, NAMCS 1977

Base of percentage number of visits in thousands	Estimated percentage					
	1 or 99	5 or 95	10 or 90	20 or 80	30 or 70	50
	Standard error in percentage points					
500	2.9	6.3	8.6	11.5	13.2	14.4
600	2.6	5.7	7.9	10.5	12.0	13.1
1,000	2.0	4.4	6.1	8.1	9.3	10.2
2,000	1.4	3.1	4.3	5.7	6.6	7.2
5,000	0.9	2.0	2.7	3.6	4.2	4.5
10,000	0.6	1.4	1.9	2.6	2.9	3.2
20,000	0.5	1.0	1.4	1.8	2.1	2.3
50,000	0.3	0.6	0.9	1.1	1.3	1.4
100,000	0.2	0.4	0.6	0.8	0.9	1.0
500,000	0.1	0.2	0.3	0.4	0.4	0.5

Example of use of table: An estimate of 30 percent based on an aggregate of 15,000,000 visits has a standard error of 2.5 percent. The relative standard error of 30 percent is 8.3 percent (2.5 percent ÷ 30 percent).

A *visit* is a direct personal exchange between an ambulatory patient and a physician or a staff member working under the physician's supervision for the purpose of seeking care and rendering health services.

A *physician* is a duly licensed doctor of medicine (M.D.) or doctor of ostepathy (D.O.) currently in office-based practice who spends time in caring for ambulatory patients. Excluded from NAMCS are physicians who are hospital based; physicians who specialize in anesthesiology, pathology, or radiology; physicians who are federally employed; physicians who treat only institutionalized patients; physicians employed full time by an institution; and physicians who spend no time seeing ambulatory patients.

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Office Visits by Black Patients, National Ambulatory Medical Care Survey: United States, 1975-76[1]

Presented in this report are data about the estimated 90.5 million office visits made by black ambulatory patients over the 2-year span from January 1975 through December 1976. The data, which are contrasted with corresponding data for the overall visit universe, are based on the findings of the National Ambulatory Medical Care Survey (NAMCS). The NAMCS is a continuing sample survey conducted annually by the Division of Health Resources Utilization Statistics of the National Center for Health Statistics. The survey—national in range except for Alaska and Hawaii—is designed to explore the provision and utilization of ambulatory care in the offices of non-Federal, office-based physicians.

Figure 1 is a facsimile of the Patient Record used by participating physicians to record information about their office visits. The reader may find it useful to refer to figure 1 as selected survey findings are presented.

DATA HIGHLIGHTS

General Perspective

During 1975 and 1976, the physician's office was the setting for an estimated 90,483,499 visits by black patients, about 7.8 percent of the total 1,155,900,228 office visits made by ambulatory patients of all races. This represented an average annual visit rate of 1.9 office visits per year for black members of the civilian noninstitutionalized population, a visit rate which is markedly below the 2.8 visits per person per year estimated for all members of that population. Black patients showed a relatively greater tendency to visit other ambulatory care sites. According to findings of the Health Interview Survey, a national household survey conducted by the National Center for Health Statistics, they visited hospital outpatient clinics and emergency rooms with a frequency that was about 2 to 3 times that of white patients.

Provider Characteristics

About 77 percent of the office-based care rendered to black patients was provided in the offices of four specialists: the general or family physician, the internist, the pediatrician, and the obstetrician gynecologist (table 1). Visits to general and family physicians alone accounted for nearly one-half of all visits. In a ratio of about 3 to 2, visits to solo practitioners outnumbered visits to physicians in multiple-member practice. Table 1 also shows that about three-fourths of all office-based care for black patients was provided in metropolitan areas.

Patient Characteristics

Nearly 2 of every 3 visits by black patients were made by persons under 45 years of age (table 2). In contrast with the median visit age of 37 years found for the entire visit universe, the median visit age of black patients was a relatively youthful 33 years. Conforming with the overall pattern of office-based care, the annual visit rate for the black population generally increased in direct parallel to advancing age (table

[1]This report was prepared by Hugo Koch and Raymond O. Gagnon, Division of Health Resources Utilization Statistics.

Figure 1. PATIENT RECORD

ASSURANCE OF CONFIDENTIALITY—All information which would permit identification of an individual, a practice, or an establishment will be held confidential, will be used only by persons engaged in and for the purposes of the survey and will not be disclosed or released to other persons or used for any other purpose.

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PATIENT RECORD
NATIONAL AMBULATORY MEDICAL CARE SURVEY

1. DATE OF VISIT — Mo / Day / Yr

2. DATE OF BIRTH — Mo / Day / Yr

3. SEX
1 ☐ FEMALE
2 ☐ MALE

4. COLOR OR RACE
1 ☐ WHITE
2 ☐ NEGRO/BLACK
3 ☐ OTHER
4 ☐ UNKNOWN

5. PATIENT'S PRINCIPAL PROBLEM(S) COMPLAINT(S), OR SYMPTOM(S) THIS VISIT (*In patient's own words*)
a. MOST IMPORTANT_____
b. OTHER_____

6. SERIOUSNESS OF PROBLEM IN ITEM 5a (*Check one*)
1 ☐ VERY SERIOUS
2 ☐ SERIOUS
3 ☐ SLIGHTLY SERIOUS
4 ☐ NOT SERIOUS

7. HAVE YOU EVER SEEN THIS PATIENT BEFORE?
1 ☐ YES 2 ☐ NO
If YES, for the problem indicated in ITEM 5a?
1 ☐ YES 2 ☐ NO

8. MAJOR REASON(S) FOR THIS VISIT (*Check all major reasons*)
01 ☐ ACUTE PROBLEM
02 ☐ ACUTE PROBLEM, FOLLOW-UP
03 ☐ CHRONIC PROBLEM, ROUTINE
04 ☐ CHRONIC PROBLEM, FLARE-UP
05 ☐ PRENATAL CARE
06 ☐ POSTNATAL CARE
07 ☐ POSTOPERATIVE CARE → (Operative procedure)
08 ☐ WELL ADULT/CHILD EXAM
09 ☐ FAMILY PLANNING
10 ☐ COUNSELING/ADVICE
11 ☐ IMMUNIZATION
12 ☐ REFERRED BY OTHER PHYS/AGENCY
13 ☐ ADMINISTRATIVE PURPOSE
14 ☐ OTHER (*Specify*)

9. PHYSICIAN'S PRINCIPAL DIAGNOSIS THIS VISIT
a DIAGNOSIS ASSOCIATED WITH ITEM 5a ENTRY
b. OTHER SIGNIFICANT CURRENT DIAGNOSES (*In order of importance*)

10. DIAGNOSTIC/THERAPEUTIC SERVICES ORDERED/PROVIDED THIS VISIT (*Check all that apply*)
01 ☐ NONE
02 ☐ LIMITED HISTORY/EXAM
03 ☐ GENERAL HISTORY/EXAM
04 ☐ CLINICAL LAB. TEST
05 ☐ BLOOD PRESSURE CHECK
06 ☐ EKG
07 ☐ HEARING TEST
08 ☐ VISION TEST
09 ☐ ENDOSCOPY
10 ☐ OFFICE SURGERY
11 ☐ DRUG PRESCRIBED
12 ☐ X-RAY
13 ☐ INJECTION
14 ☐ IMMUNIZATION/DESENSITIZATION
15 ☐ PHYSIOTHERAPY
16 ☐ MEDICAL COUNSELING
17 ☐ PSYCHOTHERAPY/THERAPEUTIC LISTENING
18 ☐ OTHER (*Specify*) _____

11. DISPOSITION THIS VISIT (*Check all that apply*)
1 ☐ NO FOLLOW-UP PLANNED
2 ☐ RETURN AT SPECIFIED TIME
3 ☐ RETURN IF NEEDED, P.R.N.
4 ☐ TELEPHONE FOLLOW-UP PLANNED
5 ☐ REFERRED TO OTHER PHYSICIAN/AGENCY
6 ☐ RETURNED TO REFERRING PHYSICIAN
7 ☐ ADMIT TO HOSPITAL
8 ☐ OTHER (*Specify*)_____

12. DURATION OF THIS VISIT (*Time actually spent with physician*)
_____MINUTES

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3). The rate for black patients of over 64 years of age, however, failed to show the pronounced increase common in the overall visit pattern. Visits by black females substantially exceeded those by black males, both in total number and in annual visit rate (tables 2 and 3).

At an estimated 43 percent of their visits, black patients presented problems that the physician had not previously encountered in those patients (table 2, prior visit status). These *new problem encounters* may be summed up as all visits made by new patients (17 percent) plus those made by old patients of the doctor at which a new problem was presented (26 percent). The remaining 57 percent of visits are return visits for previously treated problems, yielding an average of about 1.3 return visits per year for every new problem presented. The return visit rate for black patients was lower than the return visit rate of 1.7 visits per year found by similar method for the entire visit universe, a difference that probably resulted chiefly from the relatively greater frequency among black patients of acute conditions, largely self-limiting in nature, which responded rapidly to office-based care (e.g. respiratory illness). For about 60 percent of the visits by black patients involving a symptom or complaint, the problem had an onset of less than 3 months before the visit and was therefore—for NAMCS purposes—classified as an "acute" problem.

Table 1. Number and percent distribution of office visits of black patients and percent distribution of office visits of all patients, by physician characteristics: United States, 1975-76

Physician characteristic	Number of visits of black patients in thousands	Visits by—	
		Black patients	All patients[1]
		Percent distribution	
All visits	90,484	100.0	100.0
Specialty			
General and family practice	42,183	46.6	39.8
Obstetrics and gynecology	9,905	11.0	8.4
Internal medicine	9,692	10.7	11.3
Pediatrics	7,760	8.6	9.3
General surgery	5,657	6.3	6.7
Orthopedic surgery	3,177	3.5	4.1
Ophthalmology	2,854	3.2	4.7
Dermatology	1,813	2.0	3.1
Urology	1,308	1.5	1.8
Psychiatry	995	1.1	2.7
Otolaryngology	991	1.1	2.4
Cardiovascular disease	713	0.8	1.2
All other specialties	3,436	3.6	4.5
Location of practice			
Metropolitan area[2]	68,137	75.3	73.3
Nonmetropolitan area	22,346	24.7	26.7
Type of practice			
Solo	55,415	61.2	60.0
Other	35,068	38.8	40.0

[1] Based on 1,155,900,228 office visits over the 2-year span.
[2] Location within the standard metropolitan statistical areas (SMSA's). Composition of SMSA's does not reflect 1974 adjustments.

Table 2. Number and percent distribution of office visits of black patients and percent distribution of office visits of all patients, by patient characteristics: United States, 1975-76

Patient characteristic	Number of visits of black patients in thousands	Visits by—	
		Black patients	All patients[1]
		Percent distribution	
All visits	90,484	100.0	100.0
Age			
Under 15 years	15,271	16.9	18.1
15-24 years	14,935	16.5	15.1
25-44 years	28,122	31.1	25.5
45-64 years	22,229	24.6	25.1
65 years and over	9,926	11.0	16.9
Sex and age			
Female	57,875	64.0	60.4
Under 15 years	7,587	8.4	8.5
15-24 years	10,960	12.1	9.9
25-44 years	19,165	21.2	16.8
45-64 years	13,729	15.2	15.1
65 years and over	6,433	7.1	10.0
Male	32,609	36.0	39.6
Under 15 years	7,684	8.5	9.6
15-24 years	3,974	4.4	5.2
25-44 years	8,957	9.9	8.7
45-64 years	8,500	9.4	10.0
65 years and over	3,494	3.9	6.2
Prior visit status			
New patient	15,159	16.8	14.6
Old patient	75,325	83.3	85.4
New problem	23,507	26.0	23.2
Old problem	51,817	57.3	62.9

[1] Based on 1,155,900,228 office visits over the 2-year span.

Patient's Reason for Visit

Table 4 presents in ranked order the 20 reasons that most frequently motivated black patients to visit the doctor's office. These reasons are those expressed by the patient, and they are coded according to a symptom classification developed for use by the NAMCS. The listing, which includes nonsymptomatic as well as symptomatic reasons, accounts for 52 percent of all black visits. It is noteworthy that "pregnancy visits" head the list. Also distinctive of office-based care provided black patients is the relative prominence of respiratory symptoms and of complaints involving the back and extremities.

Table 3. Number of office visits per year for black patients and for patients of all races, by sex and age: United States, 1975-76

Sex and age	Black patients	All patients
Total	1.9	2.8
Sex		
Female	2.2	3.3
Male	1.4	2.5
Age		
Under 15 years	1.0	2.0
15-24 years	1.5	2.2
25-44 years	2.5	2.7
45-64 years	2.8	3.4
65 years and over	2.7	4.3

Table 4. Number, percent, and cumulative percent of office visits of black patients and percent of visits of all patients, by the patients' 20 most common reasons for visits in ranked order: United States, 1975-76

Rank	Patient's principal reason for visit and NAMCS code	Black patients			Percent of visits of all patients[1]
		Number of visits in thousands	Percent of visits	Cumulative percent	
1	Pregnancy examination.....905	4,203	4.7	4.7	3.9
2	Pain, swelling, injury-back region.....415	3,890	4.3	9.0	2.9
3	Cold.....312	3,392	3.8	12.8	1.8
4	Physical examination (excluding well-baby).....900,901	3,241	3.6	16.4	4.2
5	Pain, swelling, injury—lower extremity.....400	3,222	3.6	20.0	3.7
6	Abdominal pain.....540	3,109	3.4	23.4	2.6
7	Surgical aftercare.....986	2,883	3.2	26.6	4.7
8	Pain, swelling, injury—upper extremity.....405	2,590	2.9	29.5	2.7
9	Headache.....056	2,585	2.9	32.4	1.7
10	Cough.....311	2,314	2.6	35.0	2.3
11	Pain, swelling, injury—face and neck.....410	1,917	2.1	37.1	1.4
12	Sore throat.....520	1,870	2.1	39.2	2.7
13	High blood pressure.....205	1,852	2.1	41.3	1.3
14	Allergic skin reaction.....112	1,741	1.9	43.2	1.8
15	Wounds of skin.....116	1,627	1.8	45.0	1.4
16	Pain in chest.....322	1,407	1.6	46.6	1.7
17	Vaginal discharge.....662	1,281	1.4	48.0	0.8
18	Fever.....002	1,260	1.4	49.4	1.4
19	Well-baby examination.....906	1,258	1.4	50.8	1.7
20	Dizziness.....069	1,222	1.4	52.2	1.1

[1]Based on 1,155,900,228 office visits by patients of all races over the 2-year span.

Diagnostic Procedures and Diagnoses

To diagnose the problems that black patients presented, physicians focused on the limited examination (table 5), i.e., an examination confined to the body site or system directly connected with the patient's chief complaint. Reliance on this diagnostic approach, though general throughout ambulatory care, was significantly stronger in the treatment of black patients. It is also noteworthy from table 5 that blood pressure readings were taken substantially more often during visits made by black patients than during the overall pattern of visits (40 percent of visits by black patients compared with 33 percent by all patients).

The distribution of office visits made by black patients and by all patients is given in table 6 by major diagnostic groups. The five most common groups among black patients in order of frequency are diseases of the respiratory system; special conditions and examinations without illness; diseases of the circulatory system; accidents, poisonings, and violence; and diseases of the genitourinary system. Table 7 presents in ranked order the 20 specific conditions most frequently encountered; note that they account for nearly one-half (47.3 percent) of all visits made by black patients.

Table 5. Number and percent of office visits of black patients and percent of office visits of all patients, by diagnostic procedures ordered or provided: United States, 1975-76

Diagnostic procedures ordered or provided	Number of visits of black patients in thousands	Percent of visits by—	
		Black patients[1]	All patients[2]
Limited examination.....	52,395	57.9	51.6
General examination.....	15,944	17.6	16.3
Clinical laboratory test..	22,932	25.3	22.8
X-ray.....	6,522	7.2	7.6
Blood pressure check.....	36,126	39.9	33.2
Electrocardiogram.....	2,483	2.7	3.3
Hearing test.....	867	1.0	1.3
Vision test.....	3,426	3.8	5.0
Endoscopy.....	545	0.6	1.2

[1]Based on 90,483,499 visits.
[2]Based on 1,155,900,228 visits.

Table 6. Number and percent distribution of office visits of black patients and percent distribution of office visits of all patients, by major diagnostic groups and inclusive ICDA codes: United States, 1975-76

Major diagnostic groups and inclusive ICDA codes[1]	Number of visits of black patients in thousands	Visits by—	
		Black patients	All patients[2]
		Percent distribution	
All visits	90,484	100.0	100.0
Infective and parasitic diseases 000-136	4,410	4.9	4.2
Neoplasms 140-239	1,468	1.6	2.2
Endocrine, nutritional, and metabolic diseases 240-279	4,270	4.7	4.2
Mental disorders 290-315	3,068	3.4	4.2
Diseases of nervous system and sense organs 320-389	4,998	5.5	8.2
Diseases of circulatory system 390-458	9,366	10.4	9.6
Diseases of respiratory system 460-519	14,704	16.3	14.1
Diseases of digestive system 520-577	2,999	3.3	3.3
Diseases of genitourinary system 580-629	6,822	7.5	6.2
Diseases of skin and subcutaneous tissue 680-709	4,445	4.9	5.3
Diseases of musculoskeletal system 710-738	5,271	5.8	5.7
Symptoms and ill-defined conditions 780-796	4,063	4.5	4.7
Accidents, poisonings, and violence 800-999	8,140	9.0	7.3
Special conditions and examinations without sickness Y00-Y13	14,295	15.8	18.1
Other diagnoses[3]	1,365	1.5	1.4
Diagnosis "none" or "unknown"	788	0.9	1.3

[1]Based on *Eighth Revision International Classification of Diseases, Adapted for Use in the United States*, ICDA.
[2]Based on 1,155,900,228 office visits by patients of all races over the 2-year span 1975-76.
[3]Diseases of blood and blood-forming organs; complications of pregnancy, childbirth and the puerperium; congenital anomalies; and certain causes of perinatal morbidity and mortality.

Table 7. Number, percent, and cumulative percent of office visits of black patients and percent of visits of all patients, by the physicians' 20 most common diagnoses in ranked order: United States, 1976-76

Rank	Principal diagnosis and ICDA code[1]	Black patients			Percent of visits of all patients[2]
		Number of visits in thousands	Percent of visits	Cumulative percent	
1	Medical and special examinations Y00	5,177	5.7	5.7	7.4
2	Essential benign hypertension 401	5,019	5.6	11.3	4.0
3	Acute upper respiratory infection 465	4,403	4.9	16.2	2.9
4	Prenatal care Y06	4,211	4.7	20.9	3.7
5	Medical and surgical aftercare Y10	3,179	3.5	24.4	4.9
6	Diabetes 250	2,228	2.5	26.9	1.7
7	Sprains, strains: other and unspecified parts of back 847	1,993	2.2	29.1	1.0
8	Chronic ischemic heart disease 412	1,743	1.9	31.0	2.3
9	Neuroses 300	1,712	1.9	32.9	2.2
10	Obesity 277	1,329	1.5	34.4	1.4
11	Bronchitis (unqualified) 490	1,311	1.5	35.9	1.2
12	Other eczema and dermatitis 692	1,299	1.4	37.3	1.7
13	Sprains, strains: sacroiliac region 846	1,230	1.4	38.7	0.7
14	Acute pharyngitis 462	1,177	1.3	40.0	1.5
15	Asthma 493	1,168	1.3	41.3	1.0
16	Cystitis 595	1,167	1.3	42.6	0.8
17	Acute tonsilitis 463	1,083	1.2	43.8	1.1
18	Osteoarthritis and allied conditions 713	1,051	1.2	45.0	1.1
19	Disorders of menstruation 626	1,048	1.2	46.2	0.7
20	Synovitis, bursitis, and tenosynovitis 731	1,029	1.1	47.3	1.0

[1]Based on *Eighth Revision International Classification of Diseases, Adapted For Use in the United States*, ICDA.
[2]Based on 1,155,900,228 office visits by patients of all races over the 2-year span 1975-76.

Other Visit Characteristics

In the physician's judgement, most of the conditions presented by black office patients were not very severe in prognosis. Four of every five conditions could be categorized as ranging from slightly serious to not serious (table 8). This is about the same proportion as in visits by all patients.

Drug therapy plays an extensive part in the overall pattern of office care. It is even more extensively applied in the care of black patients since more than half of all such visits involve treatment by a prescription or nonprescription drug (table 8, therapeutic services).

In agreement with the overall tendency in office ambulatory care, a return visit was the form of disposition most frequently found in the care of black patients (table 9, disposition). Table 9 shows that the slightly greater-than-average use of the direction "return if needed" probably reflected the relatively higher incidence of acute, self-limiting conditions found among black office patients.

Table 8. Number and percent of office visits of black patients and percent of office visits of all patients, by seriousness of problem and selected therapeutic services ordered or provided: United States, 1975-76

Seriousness of problem and selected therapeutic services ordered or provided	Number of visits of black patients in thousands	Percent of visits by—	
		Black patients[1]	All patients[2]
Seriousness of problem			
Serious or very serious..	16,898	18.7	19.4
Slightly serious.....	32,009	35.4	32.0
Not serious.....	41,576	46.0	48.6
Therapeutic services			
Drug prescribed.....	48,852	54.0	43.6
Injection.....	12,604	13.9	13.1
Immunization or desensitization.....	2,961	3.3	4.9
Office surgery.....	3,975	4.4	6.9
Physiotherapy.....	3,094	3.4	2.6
Medical counseling.....	11,258	12.4	13.0
Psychotherapy and therapeutic listening...	1,720	1.9	4.2

[1]Based on 90,483,499 visits.
[2]Based on 1,155,900,228 visits.

Table 9. Number and percent distribution of office visits of black patients and percent distribution of office visits of all patients, by disposition and duration of physician-patient contact: United States, 1975-76

Disposition and duration of physician-patient contact	Number of visits of black patients in thousands	Visits by—	
		Black patients	All patients[1]
		Percent distribution	
All visits.....	90,484	100.0	100.0
Disposition[2]			
No followup planned..	10,712	11.8	12.3
Return at specified time.....	52,496	58.0	60.2
Return if needed.....	22,607	25.0	21.9
Telephone followup planned.....	1,846	2.0	3.5
Referred to other physician or agency..	3,220	3.6	2.8
Returned to referring physician.....	848	0.9	0.9
Admit to hospital.....	1,796	2.0	2.1
Duration of contact			
0 minutes (no face-to-face contact with physician).....	758	0.8	1.8
1-5 minutes.....	19,147	21.2	15.1
6-10 minutes.....	29,969	33.1	31.5
11-15 minutes.....	24,006	26.5	26.6
16-30 minutes.....	13,860	15.3	19.5
31 minutes or more....	2,744	3.0	5.5

[1]Based on 1,155,900,228 office visits by patients of all races over the 2-year span 1975-76.
[2]Will not total to 100.0 since more than one disposition was possible.

Data on duration of contact in table 9 suggest that the overall average length of time spent in face-to-face contact with the physician was less for black than for white patients. The mean contact duration for black patients was 13 minutes as compared with an estimated average of about 15 minutes for the total visit universe. It would be inaccurate to infer, however, that this shorter time was the direct product of color or race. Rather, the difference stemmed chiefly from the symptoms presented by black patients, of which a greater proportion than average were acute and self-declaring by nature, requiring relatively less time to diagnose and treat.

TECHNICAL NOTES

SOURCE OF DATA: The information presented in this report is based on data collected in the National Ambulatory Medical Care Survey (NAMCS) during 1975 and 1976. The target universe of the NAMCS is composed of office visits made within the coterminous United States to non-Federal physicians who are principally engaged in office practice and are not in the specialties of anesthesiology, pathology, or radiology. The National Opinion Research Center, under contract to the National Center for Health Statistics, was the organization responsible for the survey's field operation.

SAMPLE DESIGN: The NAMCS utilizes a multistage probability design that involves samples of primary sampling units (PSU's), physician practices within PSU's, and patient visits within practices. Each year a sample of practicing physicians is selected from master files maintained by the American Medical Association and American Osteopathic Association. For the 2-year period 1975-76, a total of 6,529 physicians were included in the sample. Of those found eligible for the survey, 79.9 percent participated. Characteristics of the physician's practice—for example, primary specialty and type of practice—are obtained during an induction interview. During a 1-week reporting period, physicians who participated in the NAMCS completed brief encounter forms for a sample of their office visits (see Patient Record, figure 1). The Patient Record included an entry for color or race (item 4). The physician was instructed to select the racial category that, based on his observation or prior knowledge of the patient, was most appropriate for the patient. The estimates presented in this report are based on the Patient Records completed for 15,004 visits by black patients over the 2-year period 1975-76. A detailed description of the NAMCS design and procedures has been presented in an earlier publication.[2]

SAMPLING ERRORS: Since the estimates for this report are based on a sample rather than the entire universe, they are subject to sampling variability. The standard error is primarily a measure of sampling variability. The relative standard error of an estimate is obtained by dividing the standard error of the estimate by the estimate itself and is expressed as a percent of the estimate. Relative standard errors of selected aggregate statistics are shown in table I. The standard errors appropriate for the estimated percentages of the office visits are shown in table II.

Table I. Approximate relative standard error of estimated numbers of office visits, NAMCS 1975-76

Estimate in thousands	Relative standard error in percentage points
600	30.2
1,000	23.5
2,000	16.7
4,000	12.0
10,000	8.0
40,000	4.8
200,000	3.4
1,000,000	3.1

Example of use of table: An aggregate estimate of 25,000,000 visits has a relative standard error of 6.4 percent or a standard error of 1,600,000 visits (6.4 percent of 25,000,000).

Table II. Approximate standard errors of percentages for estimated numbers of office visits, NAMCS 1975-76

Base of percentage (number of visits in thousands)	Estimated percentage					
	1 or 99	5 or 95	10 or 90	20 or 80	30 or 70	50
	Standard error in percentage points					
600	3.0	6.5	9.0	12.0	13.8	15.0
1,000	2.3	5.1	7.0	9.3	10.7	11.6
2,000	1.6	3.6	4.9	6.6	7.5	8.2
4,000	1.2	2.5	3.5	4.7	5.3	5.8
10,000	0.7	1.6	2.2	2.9	3.4	3.7
40,000	0.4	0.8	1.1	1.5	1.7	1.8
200,000	0.2	0.4	0.5	0.7	0.8	0.8
1,000,000	0.1	0.2	0.2	0.3	0.3	0.4

Example of use of table: An estimate of 20 percent based on an aggregate estimate of 80,000,000 visits has a standard error of 1.3 percent. The relative standard error of 20 percent is 6.5 (1.3 percent ÷ 20 percent).

ROUNDING OF NUMBERS: Aggregate estimates of office visits presented in the tables are rounded to the nearest thousand. The rates and percents, however, were calculated on the basis or original, unrounded figures. Because of rounding of percents, the sum of percentages may not equal 100.0 percent.

[2]National Center for Health Statistics: The National Ambulatory Medical Care Survey, 1975 summary, United States, January-December 1975, by H. Koch and T. McLemore, *Vital and Health Statistics*. Series 13-No. 38. DHEW Pub. No. (PHS) 78-1784. Public Health Service. Washington. U.S. Government Printing Office, Jan. 1978.

DEFINITIONS: An *ambulatory patient* is an individual presenting himself for personal health services who is neither bedridden nor currently admitted to any health care institution on the premises.

An *office* is a place that the physician identifies as a location for his ambulatory practice. Responsibility over time for patient care and professional services rendered there generally resides with the individual physician rather than an institution.

A *visit* is a direct personal exchange between an ambulatory patient and a physician or a staff member working under the physician's supervision for the purpose of seeking care and rendering health services.

A *physician* is a duly licensed doctor of medicine (M.D.) or doctor of osteopathy (D.O.) currently in practice who spends time in caring for ambulatory patients at an office location. Excluded from NAMCS are physicians who specialize in anesthesiology, pathology, or radiology; physicians who are federally employed; physicians who treat only institutionalized patients; physicians employed full time by an institution; and physicians who spend no time seeing ambulatory patients.

SYMBOLS

Data not available	...
Category not applicable	...
Quantity zero	-
Quantity more than 0 but less than 0.05	0.0
Figure does not meet standards of reliability or precision	*

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