

# advancedata

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

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE ■ Public Health Service | Number 16 ■ February 7, 1978

## Office Visits to Internists: National Ambulatory Medical Care Survey, United States, 1975<sup>1</sup>

According to data collected in the National Ambulatory Medical Care Survey (NAMCS), an estimated 62,117,000 visits were made to the offices of internists during calendar year 1975. These visits accounted for almost 11 percent of the estimated total visits made to all office-based physicians in 1975.

The 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 yearly over 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 engaged in office-based, patient care practice. In its current scope, the NAMCS excludes physicians practicing in Alaska and Hawaii; physicians whose specialty is anesthesiology, pathology, or radiology; and physicians in Government service.

Definitions of terms used in the survey and a detailed explanation of the sample design and

the relative standard errors associated with selected aggregate statistics may be found in the Technical Notes. A copy of the Patient Record appears in an earlier report.<sup>2</sup>

### DATA HIGHLIGHTS

Comparison of visits made to office-based physicians in the five most visited specialties shows that visits to internists were exceeded only by the number of visits made to general and family practitioners (table 1).

Table 1. Number and percent of visits to office-based physicians, by selected physician specialties: United States, January-December 1975

Selected specialty	Number of visits in thousands	Percent of visits
General and family practice-----	234,660	41.3
Internal medicine-----	62,117	10.9
Obstetrics and gynecology-----	48,076	8.5
Pediatrics-----	46,684	8.2
General surgery-----	41,292	7.3

<sup>1</sup>This report was prepared by Beulah K. Cypress, Ph.D., *Division of Health Resources Utilization Statistics*.

<sup>2</sup>National Center for Health Statistics: Ambulatory medical care rendered in physicians' offices: United States, 1975. *Advance Data From Vital and Health Statistics*, No. 12, DHEW Pub. No. (HRA) 77-1250. Health Resources Administration. Hyattsville, Md., Oct. 12, 1977.

Table 2. Number, percent distributions, and annual rate of visits to office-based internists by type and location of practice, and age, sex, and color of patient: United States, January-December 1975

Selected physician and patient characteristics	Number of visits in thousands	Percent distributions of visits	Annual rate of visits per 100 in population <sup>1</sup>
All visits-----	62,117	100.0	...
<u>Type of practice</u>			
Solo-----	33,706	54.3	...
Other <sup>2</sup> -----	28,411	45.7	...
<u>Location of practice<sup>3</sup></u>			
Metropolitan-----	52,543	84.6	37
Nonmetropolitan-----	9,574	15.4	14
<u>Age</u>			
Under 15 years-----	2,047	3.3	4
15-24 years-----	5,474	8.8	14
25-44 years-----	13,106	21.1	25
45-64 years-----	23,565	37.9	56
65 years and over-----	17,925	28.9	82
<u>Sex</u>			
Female-----	36,978	59.5	35
Male-----	25,139	40.5	25
<u>Color</u>			
White-----	56,438	90.9	31
All other <sup>4</sup> -----	5,679	9.1	21

<sup>1</sup>Based on population estimates for July 1, 1975: Bureau of the Census, Current Population Reports, Series P-25 and P-26.

<sup>2</sup>Includes partnership and group practices.

<sup>3</sup>Signifies location within or outside the standard metropolitan statistical areas (SMSA's).

<sup>4</sup>Of this category about 82 percent are visits by black persons.

## Type and Location of Practice

About 54 percent of visits to internists were to those in solo practice (table 2). This is a direct reflection of the fact that about 52 percent of the internists in the NAMCS sample were estimated to have been engaged in solo practice.

Table 2 also shows that 85 percent of the visits to internists were to offices located within standard metropolitan statistical areas (SMSA's),<sup>3</sup> a probable number since about 70 percent of the population reside within SMSA's. However, the visit rate was more than twice as high for visits to offices in metropolitan locations (37 visits for each 100 persons in metropolitan areas). This may signify an inclination for some of the population outside of SMSA's to visit internists within SMSA's.

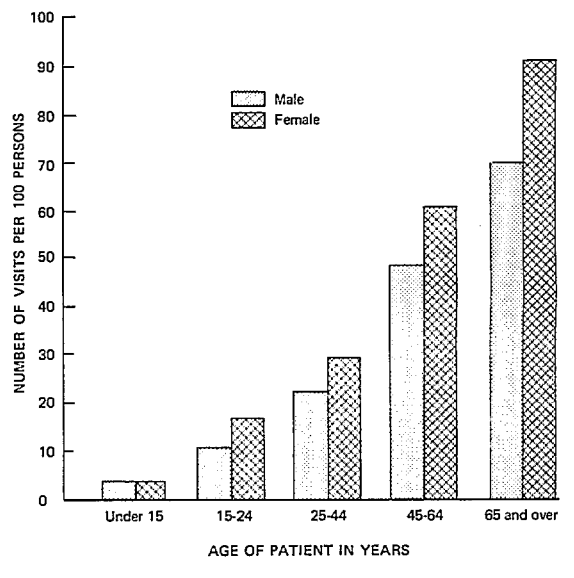
## Age, Sex, and Color of Patient

Information derived from table 2 indicates that the number of office visits to internists increased with advancing age to age 65 years, the greatest number occurring in the age interval from 45 to 64 years; and a very small number (about 3 percent) representing the group under 15 years of age. The annual rate of visits also shows a steady increase with age across all age groups.

Two of three visits were made by females, as shown in table 2. This is partly explained by the fact that females (51 percent) outnumbered males (49 percent) in the general population. However, the tendency of females to visit the internist more often is demonstrated by their higher rate of annual visits. Figure 1 illustrates the influence of sex and age on the annual visit

rate. The annual rate of female visits exceeded the annual rate for males in every age category except under 15 years. The difference became greater after the age of 44, with the largest difference in annual rate between females and males occurring in the age group 65 years and over.

Figure 1. ANNUAL RATE OF VISITS TO INTERNISTS PER 100 IN POPULATION BY SEX AND AGE OF PATIENT: UNITED STATES, JANUARY-DECEMBER 1975.



Visits by white persons (91 percent) outnumbered visits by all others (9 percent) to internists, paralleling to some degree the population ratio. However, the average annual rate of office visits was also higher for white persons—31 visits for each 100 white persons in the population were made to internists' offices, whereas members of other races visited at a rate of 21 out of 100. These data are similar to percentages found for general and family practitioners and could indicate that members of other races avail themselves more often of other means of ambulatory medical care since the NAMCS includes only office-based care.

<sup>3</sup>An SMSA is defined as a group of contiguous counties containing at least one city of 50,000 inhabitants or more, or two contiguous cities with a combined population of at least 50,000 inhabitants. The distinction "metropolitan/nonmetropolitan" should not be confused with "urban/suburban" or "urban/rural" since an SMSA may contain urban, suburban, and rural subsections.

Table 3. Number and percent of visits to office-based internists, by sex and color of patient: United States, January-December 1975

Color of patient	Female	Male
	Percent of all visits	
White-----	53.7	37.1
All other-----	5.8	3.3

The domination of the internist's patient load by the white female is illustrated in the matrix shown in table 3.

#### Patient's Major Complaint, Symptom, or Other Reason for Visit

The data in table 4 are derived from an item on the survey form which elicits the reason for visit recorded by the physician as nearly as possible in the patient's own words. The symptoms presented by patients covered a broad spectrum

Table 4. Number, percent, and cumulative percent of visits to office-based internists, by the 20 most frequent patient problems, complaints, or symptoms: United States, January-December 1975

Rank	20 most frequent patient problems, complaints, or symptoms and NAMCS code <sup>1</sup>	Number of visits in thousands	Percent of visits	Cumulative percent of visits
1	General and required physical examinations-----900,901	3,455	5.6	5.6
2	Pain in chest-----322	2,834	4.6	10.2
3	Problems of lower extremity-----400	2,724	4.4	14.6
4	Fatigue-----004	2,460	4.0	18.6
5	Abdominal pain-----540	2,292	3.7	22.3
6	High blood pressure-----205	1,823	2.9	25.2
7	Problems of back region-----415	1,756	2.8	28.0
8	Cough-----311	1,694	2.7	30.7
9	Problems of upper extremity-----405	1,500	2.4	33.1
10	Vertigo—dizziness-----069	1,427	2.3	35.4
11	Shortness of breath-----306	1,365	2.2	37.6
12	Headache-----056	1,262	2.0	39.6
13	Throat soreness-----520	1,137	1.8	41.4
14	Diabetes mellitus-----991	1,072	1.7	43.1
15	Cold-----312	960	1.6	44.7
16	Visits for medication-----910	884	1.4	46.1
17	Nervousness-----810	831	1.3	47.4
18	Problems of face, neck-----410	749	1.2	48.6
19	Allergic skin reactions-----112	716	1.2	49.8
20	Other symptoms referable to cardiovascular system-----220	672	1.1	50.9

<sup>1</sup>Symptomatic groupings and code number inclusions are based on a symptom classification developed for use in the NAMCS.

of problems since the 20 most common reasons for visit constituted only about half of all visits.

#### Principal Diagnosis<sup>4</sup>

Table 5 lists the 20 most common principal diagnoses assigned by internists to office visits.

<sup>4</sup>Principal diagnosis is the first diagnosis listed by the physician on the Patient Record.

These diagnoses covered about one-half of all visits made to office-based internists in 1975.

Table 6 shows the number of principal diagnoses according to major ICDA groups.<sup>5</sup> The

<sup>5</sup>National Center for Health Statistics: *Eighth Revision International Classification of Diseases, Adapted for Use in the United States (ICDA)*. PHS Pub. No. 1693. Public Health Service. Washington. U.S. Government Printing Office, 1967.

Table 5. Number, percent, and cumulative percent of visits to office-based internists by the 20 most common ICDA 3-digit categories containing the principal diagnosis: United States, January-December 1975

Rank	20 most common ICDA 3-digit categories and code <sup>1</sup>	Number of visits in thousands	Percent of visits	Cumulative percent of visits
1	Essential benign hypertension-----401	5,781	9.3	9.3
2	Chronic ischemic heart disease-----412	4,894	7.9	17.2
3	Diabetes mellitus-----250	2,777	4.5	21.7
4	Medical or special examination-----Y00	2,566	4.1	25.8
5	Acute upper respiratory infection-----465	1,588	2.6	28.4
6	Neuroses-----300	1,430	2.3	30.7
7	Osteoarthritis and allied conditions----713	1,414	2.3	33.0
8	Symptomatic heart disease-----427	1,253	2.0	35.0
9	Medical and surgical aftercare-----Y10	1,101	1.8	36.8
10	Rheumatoid arthritis and allied conditions-----712	1,011	1.6	38.4
11	Obesity-----277	983	1.6	40.0
12	Observation, without need for further medical care-----793	838	1.3	41.3
13	Emphysema-----492	837	1.3	42.6
14	Hay fever-----507	749	1.2	43.8
15	Other eczema and dermatitis-----692	746	1.2	45.0
16	Other nonarticular rheumatism-----717	727	1.2	46.2
17	Synovitis, bursitis, and tenosynovitis--731	662	1.1	47.3
18	Arthritis, unspecified-----715	628	1.0	48.3
19	Symptoms referable to respiratory system-----783	614	1.0	49.3
20	Bronchitis, unqualified-----490	577	1.0	50.2

<sup>1</sup>Diagnostic groupings and code number inclusions are based on the Eighth Revision International Classification of Diseases, Adapted for Use in the United States.

Table 6. Number and percent distribution of visits to office-based internists by principal diagnosis classified by major ICDA groups: United States, January-December 1975

Principal diagnosis classified by ICDA group and code <sup>1</sup>	Number of visits in thousands	Percent distribution of visits
All principal diagnoses-----	62,117	100.0
Infective and parasitic diseases-----000-136	1,737	2.8
Neoplasms-----140-239	2,310	3.7
Endocrine, nutritional, and metabolic diseases---240-279	5,678	9.1
Diseases of the blood and blood-forming organs---280-289	760	1.2
Mental disorders-----290-315	2,250	3.6
Diseases of the nervous system and sense organs---320-389	2,033	3.3
Diseases of the circulatory system-----390-458	15,436	24.9
Diseases of the respiratory system-----460-519	7,295	11.7
Diseases of the digestive system-----520-577	3,422	5.5
Diseases of the genitourinary system-----580-629	2,327	3.8
Diseases of the skin and subcutaneous tissue-----680-709	1,597	2.6
Diseases of the musculoskeletal system and connective tissue-----710-738	5,332	8.6
Symptoms and ill-defined conditions-----780-796	4,085	6.6
Accidents, poisonings, and violence-----800-999	2,674	4.3
Special conditions and examinations without sickness-----Y00-Y13	4,317	7.0
Other diagnoses, "none," and unknown <sup>2</sup> -----	865	1.4

<sup>1</sup>Diagnostic groupings and code number inclusions are based on the Eighth Revision International Classification of Diseases, Adapted for Use in the United States.

<sup>2</sup>630-678, Complications of pregnancy, childbirth, and the puerperium; 740-759, Congenital anomalies; blank, noncodable, and illegible diagnoses.

following four diagnostic groups accounted for over 54 percent of all principal diagnoses rendered, with almost half of these included in diseases of the circulatory system: diseases of the circulatory system; diseases of the respiratory system; endocrine, nutritional, and metabolic diseases; and diseases of the musculoskeletal system and connective tissue.

#### Diagnostic and Therapeutic Services

Blood pressure checks were provided in over

61 percent of all visits, and EKG's were performed in 14 percent of visits to the internist (table 7). Only 33 percent of visits to all office-based physicians included blood pressure checks, with an EKG performed in only 3 percent of all visits, reflecting the high degree of diseases of the circulatory system diagnosed by internists. Almost half of all visits to the internist resulted in a drug administered or prescribed. Medical counseling was included in almost 18 percent of the visits to the internist, about 6 percent more than to all office-based physicians.

Table 7. Number and percent distribution of visits to office-based internists, by diagnostic and therapeutic services ordered or provided: United States, January-December 1975

Diagnostic and therapeutic services ordered or provided <sup>1</sup>	Number of visits in thousands	Percent of visits
All visits-----	62,117	100.0
No services provided-----	832	1.3
<u>Diagnostic services</u>		
Limited history or examination-----	38,132	61.4
General history or examination-----	12,498	20.1
Clinical lab test-----	23,893	38.5
X-ray-----	8,131	13.1
Blood pressure check-----	38,156	61.4
EKG-----	8,663	14.0
Hearing test-----	932	1.5
Vision test-----	1,465	2.4
Endoscopy-----	1,005	1.6
<u>Therapeutic services</u>		
Drug administered or prescribed <sup>2</sup> -----	30,761	49.5
Injection-----	7,209	11.6
Immunization or desensitization-----	1,596	2.6
Office surgery-----	905	1.5
Physiotherapy-----	701	1.1
Medical counseling-----	11,078	17.8
Psychotherapy or therapeutic listening-----	1,667	2.7
Other services provided-----	1,075	1.7

<sup>1</sup>Percents will not add to 100 because most patient visits required the provision of more than one treatment or service.

<sup>2</sup>Includes prescription and nonprescription drugs.

**Prior Visit Status and Seriousness of Problem**

Data from tables 8 and 9 indicate that about 7 of 8 visits to internists were by returning patients, with continuing problems presented by 6 of 8 patients the physician had seen before. The greater the age of the patient, the greater was the tendency to visit with a recurring problem.

Tables 8 and 9 also provide data that express the physician's judgment as to the extent of impairment that might result if no care were available for the given problem. They should be viewed in the context of the specialist's practice.

About 71 percent of all visits were judged by the internist as either not serious or slightly serious. However, the tendency to judge cases as belonging in the more serious category increased with advancing age of the patient.

Table 8. Number and percent distributions of visits to office-based internists by prior visit status, seriousness of problem, disposition of visit, and duration of visit: United States, January-December 1975

Selected visit characteristics	Number of visits in thousands	Percent of visits
All visits-----	62,117	100.0
<u>Prior visit status</u>		
Patient seen for the first time-----	8,122	13.1
Patient seen before for another problem-----	12,995	20.9
Patient seen before for current problem-----	41,000	66.0
<u>Seriousness of problem</u>		
Serious and very serious-----	17,751	28.6
Slightly serious-----	20,883	33.6
Not serious-----	23,484	37.8
<u>Disposition<sup>1</sup></u>		
No followup-----	5,635	9.1
Return at specified time-----	42,467	68.4
Return if needed-----	10,248	16.5
Telephone followup-----	3,099	5.0
Referred to other physician/agency-----	2,751	4.4
Admit to hospital-----	1,037	1.7
Other <sup>2</sup> -----	890	1.4
<u>Duration of visit<sup>3</sup></u>		
0 minute (no face-to-face encounter with physician)-----	420	0.7
1-5 minutes-----	3,504	5.6
6-10 minutes-----	15,381	24.8
11-15 minutes-----	22,110	35.6
16-30 minutes-----	15,293	24.6
31 minutes or more-----	5,410	8.7

<sup>1</sup>Percents will not add to 100 because some patient visits had more than one disposition.

<sup>2</sup>Includes return to referring physician.

<sup>3</sup>Signifies time spent in face-to-face encounter between physician and patient.



Table 9. Number and percent distributions of visits to office-based internists by prior visit status and seriousness of problem, according to age, sex, and color of patient: United States, January-December 1975

Age, sex, and color of patient	Number of visits in thousands	Percent distribution of visits	Prior visit status			Seriousness of problem		
			Patient seen for the first time	Patient seen before		Serious or very serious	Slightly serious	Not serious
				For another problem	For current problem			
All visits-----	62,117	100.0	13.1	20.9	66.0	28.6	33.6	37.8
<u>Age</u>								
Under 15 years-----	2,047	100.0	28.7	40.0	31.3	10.6	27.3	62.2
15-24 years-----	5,474	100.0	31.0	32.2	36.8	12.0	28.2	59.9
25-44 years-----	13,107	100.0	19.4	23.7	56.8	20.6	33.0	46.5
45-64 years-----	23,565	100.0	9.6	19.0	71.5	32.5	33.6	34.0
65 years and over-----	17,925	100.0	5.8	15.8	78.5	36.5	36.5	27.0
<u>Sex</u>								
Female-----	36,978	100.0	12.2	21.2	66.6	26.8	34.9	38.3
Male-----	25,139	100.0	14.3	20.5	65.2	31.3	31.7	37.0
<u>Color</u>								
White-----	56,438	100.0	12.6	20.9	66.6	28.8	33.9	37.3
All other <sup>1</sup> -----	5,679	100.0	18.2	21.2	60.6	26.3	31.1	42.7

<sup>1</sup>Of this category about 82 percent are visits by black persons.

### Disposition and Duration of Visit

Over two-thirds of the visits to internists' offices resulted in the direction to return at a specified time (table 8), highly correlating with the fact that 2 of 3 visits were made by returning patients with recurring problems. Like the general and family practitioner, the internist

admitted a very small percentage of his patients to the hospital (slightly less than 2 percent).

The average visit to the internist's office lasted 18.2 minutes, which exceeded the average of 15.0 minutes for all specialties.<sup>6</sup>

<sup>6</sup>See reference cited in footnote 2.

## TECHNICAL NOTES

**SOURCE OF DATA:** Data presented in this report were obtained during 1975 through the National Ambulatory Medical Care Survey (NAMCS). The target population of NAMCS encompasses office visits within the coterminous United States made by ambulatory patients to physicians who are principally engaged in office practice.

**SAMPLE DESIGN:** The 1975 NAMCS utilized a multistage probability design that involved samples of primary sampling units (PSU's), physician practices within PSU's, and patient visits within practices. Within the 87 PSU's composing the first stage of selection, a sample of approximately 3,500 physicians was selected from master files maintained by the American Medical Association and the American Osteopathic Association. Sampled physicians, randomly assigned to 1 of the 52 weeks in the survey year, were requested to complete Patient Records (brief encounter forms) for a systematic random sample of office visits taking place within their practice during the assigned reporting period. (A facsimile of the Patient Record used is shown in a previous issue of *Advance Data From Vital and Health Statistics*, No. 12, October 12, 1977.) Additional data concerning physician practice characteristics such as primary specialty and type of practice were obtained during an induction interview.

A complete description of the survey's background and development has been presented in an earlier publication in Series 2 of *Vital and Health Statistics* (No. 61. DHEW Pub. No. (HRA) 76-1335. Health Resources Administration. Washington. U.S. Government Printing Office, Apr. 1974). A detailed description of the 1975 NAMCS design and procedures will be presented in future publications.

**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 esti-

mate. 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.

Table I. Approximate relative standard errors of estimated numbers of office visits

Estimate in thousands	Relative standard error in percentage points
500 .....	30.1
1,000 .....	21.4
2,000 .....	15.3
5,000 .....	10.0
10,000 .....	7.5
30,000 .....	5.1
100,000 .....	4.0
550,000 .....	3.5

Example of use of table: An aggregate of 80,000,000 has a relative standard error of 4.3 percent or a standard error of 3,440,000 (4.3 percent of 80,000,000).

Table II. Approximate standard errors of percentages for estimated numbers of office visits

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
1,000.....	2.1	4.6	6.3	8.5	9.7	10.6
3,000.....	1.2	2.7	3.7	4.9	5.6	6.1
5,000.....	0.9	2.1	2.8	3.8	4.3	4.7
10,000.....	0.7	1.5	2.0	2.7	3.1	3.3
50,000.....	0.3	0.7	0.9	1.2	1.4	1.5
100,000.....	0.2	0.5	0.6	0.8	1.0	1.1
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 75,000,000 has a standard error of 1.2 percent. The relative standard error of 30 percent is 4.0 percent (1.2 percent ÷ 30 percent).

**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.

**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, 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-----	*

*Recent Issues of Advance Data From Vital and Health Statistics*

No. 15. National Ambulatory Medical Care Survey of Visits to General and Family Practitioners, January-December 1975 (Issued: December 14, 1977)

No. 13. Ambulatory Medical Care Rendered in Pediatricians' Offices During 1975 (Issued: October 13, 1977)

No. 12. Ambulatory Medical Care Rendered in Physicians' Offices: United States, 1975 (Issued: October 12, 1977)

No. 14. Weight by Height and Age of Adults 18-74 Years: United States, 1971-74 (Issued: November 30, 1977)

No. 11. Pregnant Workers in the United States (Issued: September 15, 1977)

A complete list of *Advance Data From Vital and Health Statistics* is available from the Scientific and Technical Information Branch.