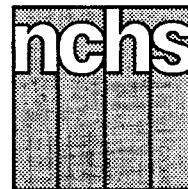


Advance Data



From Vital and Health Statistics of the CENTERS FOR DISEASE CONTROL AND PREVENTION/National Center for Health Statistics

National Ambulatory Medical Care Survey: 1993 Summary

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Introduction

During the 12-month period from January 1993 through December 1993, an estimated 717.2 million visits were made to nonfederally employed, office-based physicians in the United States, or 2.8 visits per person. This rate is not significantly different from office visit rates observed since 1975 (1–5).

This report presents data highlights from the 1993 National Ambulatory Medical Care Survey (NAMCS), a national probability sample survey conducted by the Division of Health Care Statistics of the National Center for Health Statistics, Centers for Disease Control and Prevention. Statistics are presented on physician, patient, and visit characteristics.

Only visits to the offices of nonfederally employed physicians (excluding those in the specialties of anesthesiology, radiology, and pathology) who were classified by the American Medical Association or the American Osteopathic Association as "office-based, patient care" were included in the NAMCS. Visits to private, nonhospital-based clinics and health maintenance organizations were within the scope of the survey, but those occurring in government-operated facilities and hospital-based outpatient departments were not. Telephone

contacts and visits made outside the physician's office were also excluded.

Because the estimates presented in this report are based on a sample rather than on the entire universe of office visits, they are subject to sampling variability. The Technical notes at the end of this report include an overview of the sample design used in the 1993 NAMCS, an explanation of sampling errors, and guidelines for judging the precision of the estimates.

The Patient Record form is used by physicians participating in the NAMCS to record information about their patients' office visits. This form is reproduced in figure 1 and is intended to serve as a reference for readers as they review the survey findings presented in this document.

The physician sample for the NAMCS was selected with the cooperation of the American Medical Association and the American Osteopathic Association. Their contribution to this effort is gratefully acknowledged.

Physician characteristics

The distribution of office visits according to physician specialty is presented in table 1. The largest share of visits was made to physicians in general and family practice (27.6 percent). Visit rates to each of the physician specialty

groups did not differ significantly from 1992 visit rates with the exception of otolaryngologists. The rate of visits to this specialty decreased from 9.1 visits per 100 persons in 1992 to 6.0 visits per 100 persons in 1993. However, the 1993 figure is not significantly different from the corresponding rate of 7.7 visits per 100 in 1991. In fact, the visit rate to otolaryngologists has ranged between 6.5 and 7.0 visits per 100 persons between 1975 and 1990, so the 1992 figure appears to be an anomaly.

Doctors of osteopathy received 44.9 million visits during 1993, or 6.3 percent of all office visits. Visits to this specialty occurred at a rate of 17.7 per 100 persons, which was not significantly different from the 1992 visit rate.

Visits according to geographic characteristics of the physician's practice are also displayed in table 1. Visit rates by region—Northeast, Midwest, South, and West—did not differ from each other in 1993, except that the Northeast rate was higher than the South and Midwest. Regional rates were not significantly different than the corresponding 1992 rates.

Patient characteristics

Office visits by patient's age, sex, and race are shown in table 2. Females made 60.0 percent of all office visits



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Public Health Service

Centers for Disease Control and Prevention

National Center for Health Statistics



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.		Department of Health and Human Services Public Health Service Centers for Disease Control National Center for Health Statistics		B			
1. DATE OF VISIT ____/____/____ Month Day Year		NATIONAL AMBULATORY MEDICAL CARE SURVEY 1993-94 PATIENT RECORD				OMB NO. 0920-0234 Expires 4-30-95 CDC 64.21B	
2. DATE OF BIRTH ____/____/____ Month Day Year		4. COLOR OR RACE 1 <input type="checkbox"/> White 2 <input type="checkbox"/> Black 3 <input type="checkbox"/> Asian / Pacific Islander 4 <input type="checkbox"/> American Indian / Eskimo / Aleut		5. ETHNICITY 1 <input type="checkbox"/> Hispanic origin 2 <input type="checkbox"/> Not Hispanic		6. EXPECTED SOURCE(S) OF PAYMENT <i>(Check all that apply)</i> 1 <input type="checkbox"/> Private / commercial 5 <input type="checkbox"/> HMO/ other prepaid 2 <input type="checkbox"/> Medicare 6 <input type="checkbox"/> Patient paid 3 <input type="checkbox"/> Medicaid 7 <input type="checkbox"/> No charge 4 <input type="checkbox"/> Other government 8 <input type="checkbox"/> Other	
3. SEX 1 <input type="checkbox"/> Female 2 <input type="checkbox"/> Male		7. WAS PATIENT REFERRED FOR THIS VISIT BY ANOTHER PHYSICIAN? 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No		8. IS THIS VISIT INJURY RELATED? 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No		9. DOES PATIENT SMOKE CIGARETTES? 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No 3 <input type="checkbox"/> Unknown	
10. PATIENT'S COMPLAINT(S), SYMPTOM(S), OR OTHER REASON(S) FOR THIS VISIT <i>[In patient's own words]</i> a. Most important: _____ b. Other: _____ c. Other: _____		11. PHYSICIAN'S DIAGNOSES <i>[As specific as possible]</i> a. Principal diagnosis / problem associated with item 10.a: _____ b. Other: _____ c. Other: _____		12. HAVE YOU OR ANYONE IN YOUR PRACTICE SEEN PATIENT BEFORE? 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No ↓ If yes, for the condition in item 11a? 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No		13. DOES PATIENT HAVE: <i>[Check all that apply regardless of any entry in item 11]</i> 1 <input type="checkbox"/> Asthma 2 <input type="checkbox"/> Diabetes 3 <input type="checkbox"/> HIV 4 <input type="checkbox"/> Obesity 5 <input type="checkbox"/> Osteoporosis 6 <input type="checkbox"/> None of the above	
14. TESTS, SURGICAL AND NONSURGICAL PROCEDURES, AND THERAPIES None <input type="checkbox"/>							
a. SELECTED SERVICES <i>(Check all ordered or provided)</i>		b. ALL OTHER SERVICES <i>(Record one on each line and check performed or ordered for each.)</i>		Include: • Tests • Imaging • Surgeries and other procedures • Other therapies (such as contact lens Rx, individual psychotherapy, or physiotherapy)		Exclude: • Services in item 14a • Counseling / education • Medications	
1 <input type="checkbox"/> Blood pressure 2 <input type="checkbox"/> Urinalysis 3 <input type="checkbox"/> Spirometry 4 <input type="checkbox"/> Allergy testing 5 <input type="checkbox"/> HIV serology 6 <input type="checkbox"/> Other blood test		Performed Ordered 1 <input type="checkbox"/> 2 <input type="checkbox"/> _____ 1 <input type="checkbox"/> 2 <input type="checkbox"/> _____ 1 <input type="checkbox"/> 2 <input type="checkbox"/> _____ 1 <input type="checkbox"/> 2 <input type="checkbox"/> _____		Performed Ordered 1 <input type="checkbox"/> 2 <input type="checkbox"/> _____ 1 <input type="checkbox"/> 2 <input type="checkbox"/> _____ 1 <input type="checkbox"/> 2 <input type="checkbox"/> _____ 1 <input type="checkbox"/> 2 <input type="checkbox"/> _____			
15. COUNSELING / EDUCATION <i>(Check all ordered or provided)</i>		16. MEDICATIONS / INJECTIONS <i>(Include: • Rx and OTC • Immunizations • Allergy shots • Anesthetics • Meds ordered, supplied, or administered • New meds • Continuing meds (with or without new orders))</i>		17. DISPOSITION THIS VISIT <i>(Check all that apply)</i>		18. DURATION OF THIS VISIT <i>(Time actually spent with physician)</i>	
1 <input type="checkbox"/> None 6 <input type="checkbox"/> Growth / development 2 <input type="checkbox"/> Exercise 7 <input type="checkbox"/> Injury prevention 3 <input type="checkbox"/> Cholesterol reduction 8 <input type="checkbox"/> HIV transmission 4 <input type="checkbox"/> Weight reduction 9 <input type="checkbox"/> Other STD transmission 5 <input type="checkbox"/> Smoking cessation 10 <input type="checkbox"/> Other		1 _____ 2 _____ 3 _____ 4 _____ 5 _____		1 <input type="checkbox"/> No follow-up planned 2 <input type="checkbox"/> Return at specified time 3 <input type="checkbox"/> Return if needed, P.R.N. 4 <input type="checkbox"/> Telephone follow-up planned 5 <input type="checkbox"/> Referred to other physician 6 <input type="checkbox"/> Returned to referring physician 7 <input type="checkbox"/> Admit to hospital 8 <input type="checkbox"/> Other <i>[Specify]</i> _____		_____ Minutes	

Figure 1. Patient Record form

during 1993 and accounted for a higher percent of visits than males in all age categories except the youngest (under 15 years). Females also had significantly higher visit rates than males in each age category with the exception of the youngest group (under 15 years) and the two oldest groups (65-74 years and 75 years and over). These patterns were also observed in the 1990-92 National Ambulatory Medical Care Surveys.

Visit rates were found to increase with age after the age of 24. Persons aged 75 years and over had the highest visit rate of the six age categories

analyzed, at 6.1 visits per person. The pattern, however, was found to be slightly different for males and females. Among males, the visit rate for the age group 15-24 years was significantly lower than for those under 15 years. But males in the age group 25-44 years had a higher rate than those 15-24 years. The rate increased with each successive age group, with males aged 75 years and over having the highest rate of 6.2 visits per person.

There was no significant difference in the visit rates for females under 15 years and those 15-24 years. However,

the rate was higher for females 25-44 years than for those 15-24, and increased again for those 45-64 years and 65-74 years of age. There was no significant difference in visit rates between females in the two oldest age groups, 65-74 years and 75 years and over.

The visit rate for the white population was significantly higher (3.0 visits per person) than the rate for the black population (1.8 visits per person) in 1993. Visit rates were higher for white persons in each age group compared with black persons, with the

exception of those 75 years and over. White persons made 88.2 percent of all office visits, with black persons and Asians/Pacific Islanders accounting for 8.1 percent and 3.3 percent, respectively.

The visit rate for the black population in 1993 was significantly lower than the 1992 rate (2.6 visits per person), but was not significantly different from the 1991 rate (1.9 visits per person). The higher rates in 1992 may be the result of sampling variability rather than a true increase, as discussed in a previous report (5).

Visit characteristics

Referral status and prior-visit status

Table 3 shows data on office visits categorized by patient's referral status and prior-visit status. The distribution of visits by referral status and prior-visit status according to physician specialty is shown in table 4. It is important to note that, in previous years, several data items were used to determine referral status. Return visits made for treatment of an "old" problem were not considered referral visits even if the referral item on the Patient Record form had been checked "yes" by the physician. This edit procedure was instituted on the assumption that if the physician had seen the patient previously for treatment of the same problem (defined as the current episode of care), that patient could not have been referred for the current visit.

However, in recent years, increasing numbers of physicians in the NAMCS sample have characterized visits as referrals and, at the same time, as being made by "old" patients for "old" problems. This apparent inconsistency may have a number of possible explanations: some physicians may be reporting referred patients as referred visits; changes in referral patterns may have occurred related to changes in insurance coverage; or physicians may be including patients seen before for past episodes of care, rather than current episodes of care.

Beginning with the 1993 survey year, only data from the referral status

Table 1. Annual number, percent distribution, and rate of office visits by selected physician practice characteristics: United States, 1993

<i>Physician practice characteristic</i>	<i>Number of visits in thousands</i>	<i>Percent distribution</i>	<i>Number of visits per 100 persons per year¹</i>
All visits	717,191	100.0	282.0
<i>Physician specialty</i>			
General and family practice	197,605	27.6	77.7
Internal medicine	102,436	14.3	40.3
Pediatrics	76,982	10.7	30.3
Obstetrics and gynecology	64,030	8.9	² 27.2
Ophthalmology	39,373	5.5	15.5
Orthopedic surgery	33,638	4.7	13.2
Dermatology	31,469	4.4	12.4
General surgery	21,703	3.0	8.5
Psychiatry	20,469	2.9	8.0
Urology	15,690	2.2	6.2
Otolaryngology	15,380	2.1	6.0
Cardiovascular diseases	12,178	1.7	4.8
Allergy and immunology ³	10,605	1.5	4.2
Neurology	8,393	1.2	3.3
Pulmonary diseases ³	4,251	0.6	1.7
All other specialties	62,991	8.8	24.8
<i>Professional identity</i>			
Doctor of medicine	672,306	93.7	264.4
Doctor of osteopathy	44,885	6.3	17.7
<i>Geographic region</i>			
Northeast	168,438	23.5	336.6
Midwest	169,035	23.6	272.5
South	213,356	29.7	250.0
West	166,363	23.2	292.7

¹Based on U.S. Bureau of the Census estimates of the civilian noninstitutionalized population of the United States as of July 1, 1993.

²The visit rate is 48.5 per 100 females.

³These specialties were sampled separately in 1993 only as part of a supplemental data collection project.

item on the Patient Record form will be used to determine referral status. The definition of a referred visit consistent with past usage can be recreated using information available on the public use data file. Recent changes in the health care system may have altered the way referral status is conceptualized and interpreted. Research is under way to improve the collection of this information in the NAMCS.

When referred visits are restricted to those made by new patients and those made by old patients for new problems, their share of total visits is 6.6 percent, not significantly different than the 1992 NAMCS figure of 6.2 percent. Using the number of referred visits reported by physicians (which includes visits made by old patients for old problems), the percent of referred visits is 13.7 (table 3).

Also shown in table 3 are office visits by prior-visit status. Eight out of ten office visits (84.4 percent) were made by patients who had seen the physician on a previous occasion, and more than half of all visits (63.1 percent) were made by persons returning to the physician for care of a previously treated problem.

As expected, the percent of referred visits reported by primary care specialties was relatively low, 10 percent or less of the total visits to general and family practitioners, internists, pediatricians, and obstetricians-gynecologists. In contrast, about half of all visits to neurologists (50.7 percent) were reported to be referrals (table 4).

Expected sources of payment

Data on expected sources of payment are shown in table 5.

Table 2. Annual number, percent distribution, and rate of office visits by patient's age, sex, and race: United States, 1993

<i>Patient's age, sex, and race</i>	<i>Number of visits in thousands</i>	<i>Percent distribution</i>	<i>Number of visits per persons per year¹</i>
All visits	717,191	100.0	2.8
Age			
Under 15 years	129,279	18.0	2.3
15-24 years	62,346	8.7	1.8
25-44 years	193,914	27.0	2.4
45-64 years	160,146	22.3	3.2
65-74 years	93,873	13.1	5.0
75 years and over	77,633	10.8	6.1
Sex and age			
Female	430,170	60.0	3.3
Under 15 years	60,664	8.5	2.2
15-24 years	41,408	5.8	2.4
25-44 years	128,854	18.0	3.1
45-64 years	96,011	13.4	3.7
65-74 years	55,215	7.7	5.4
75 years and over	48,017	6.7	6.1
Male	287,021	40.0	2.3
Under 15 years	68,615	9.6	2.3
15-24 years	20,938	2.9	1.2
25-44 years	65,060	9.1	1.6
45-64 years	64,135	8.9	2.7
65-74 years	38,658	5.4	4.6
75 years and over	29,616	4.1	6.2
Race and age			
White	632,500	88.2	3.0
Under 15 years	113,506	15.8	2.5
15-24 years	53,650	7.5	2.0
25-44 years	167,026	23.3	2.5
45-64 years	140,231	19.6	3.3
65-74 years	86,204	12.0	5.2
75 years and over	71,884	10.0	6.3
Black	58,154	8.1	1.8
Under 15 years	10,328	1.4	1.1
15-24 years	6,308	0.9	1.2
25-44 years	16,946	2.4	1.7
45-64 years	14,399	2.0	2.8
65-74 years	5,381	0.8	3.2
75 years and over	4,793	0.7	4.8
All other races			
Asian/Pacific Islander	23,377	3.3	---
American Indian/Eskimo/Aleut	3,160	0.4	---

¹Based on U.S. Bureau of the Census estimates of the civilian noninstitutionalized population of the United States as of July 1, 1993.

Physicians were asked to check all of the applicable payment categories for this survey item, with the result that multiple payment sources could be coded for each visit. The patient-paid category includes the patient's contribution toward "co-payments" and "deductibles."

Expected sources of payment were most often private/commercial insurance (38.7 percent of visits), Medicare (22.1 percent of visits), HMO/other

prepaid (19.3 percent), and patient-paid (15.0 percent). Medicaid was listed as an expected source of payment at 10.4 percent of visits.

Injury-related visits

Injury-related office visits are presented in terms of patient's age, sex, and race in table 6. Based on data collected in item 8 of the Patient Record form, there were an estimated 84.0

million injury-related office visits in 1993, representing 11.7 percent of all office visits. Corresponding figures for 1992 were 65.6 million and 8.6 percent of visits, respectively. About half of the injury visits (51.0 percent) were made by males, and 38.8 percent were made by persons 25-44 years old.

The injury visit rate for males was not significantly higher than the rate for females in 1993 (34.6 visits per 100 males compared with 31.5 visits per 100 females), nor were there any differences noted between males and females by age.

Among females, injury visit rates were not significantly different for women in the age groups 25-44, 45-64, 65-74, and 75 years and over. However, the rates for these groups were significantly higher than for females under 15 years and 15-24 years of age. Males in the age group 25-44 years had an injury visit rate higher than those aged under 15 years and 15-24 years. However, the rate was not statistically different for males in the 25-44, 45-64, 65-74, and 75 years and over groups.

The injury visit rate for black persons was 19.1 visits per 100 persons in 1993, significantly lower than the rate of 35.6 injury visits per 100 white persons. Rates were not significantly different between white males (36.8 per 100) and white females (34.3 per 100), or between black males (20.9 per 100) and black females (17.5 per 100) (data not shown).

Patient's cigarette-smoking status

Results from the 1993 survey showed that 67.7 million office visits, or 9.4 percent of the total, were made by patients who smoke cigarettes. However, patient's smoking status was not reported for 27.0 percent of office visits. Data on visits according to patient's cigarette-smoking status are presented in tables 7 and 8.

Patient's principal reason for visit

Item 10 of the Patient Record form asks the physician to record the patient's (or patient surrogate's) "complaint(s),

Table 3. Number and percent distribution of office visits by patient's referral status, according to prior-visit status: United States, 1993

Referral status	Prior-visit status			
	All visits	New patient	Old patient, new problem	Old patient, old problem
Number of visits in thousands				
All visits	717,191	111,922	152,898	452,372
Referred for this visit	98,159	37,068	10,063	51,028
Not referred for this visit	619,032	74,854	142,835	401,344
Percent distribution				
All visits	100.0	100.0	100.0	100.0
Referred for this visit	13.7	33.1	6.6	11.3
Not referred for this visit	86.3	66.9	93.4	88.7

NOTE: Numbers may not add to totals because of rounding.

Table 4. Number and percent distribution of office visits by physician specialty, according to referral status and prior-visit status: United States, 1993

Physician specialty	Number of visits in thousands	Total	Referred for this visit			Not referred for this visit		
			New patient	Old patient, new problem	Old patient, old problem	New patient	Old patient, new problem	Old patient, old problem
Percent distribution								
All visits	717,191	100.0	5.2	1.4	7.1	10.4	19.9	56.0
General and family practice	197,605	100.0	0.9	1.1	1.9	11.3	30.3	54.6
Internal medicine	102,436	100.0	2.2	2.0	3.4	7.1	24.9	60.4
Pediatrics	76,982	100.0	0.9	1.0	1.5	5.1	35.8	55.7
Obstetrics and gynecology	64,030	100.0	3.0	1.5	5.9	13.1	15.0	61.5
Ophthalmology	39,373	100.0	5.3	1.5	5.7	12.1	7.6	67.8
Orthopedic surgery	33,638	100.0	15.3	2.6	16.6	12.1	7.3	46.2
Dermatology	31,469	100.0	6.1	1.4	8.5	17.3	12.1	54.5
General surgery	21,703	100.0	16.3	3.0	18.7	9.9	9.1	42.9
Psychiatry	20,469	100.0	5.0	*0.2	15.4	10.7	*0.2	68.6
Urology	15,690	100.0	14.6	1.8	17.4	6.5	3.4	56.2
Otolaryngology	15,380	100.0	16.0	2.1	14.2	17.6	5.3	44.7
Cardiovascular diseases	12,178	100.0	10.2	*1.4	16.9	6.4	4.7	60.4
Allergy and immunology ¹	10,605	100.0	6.7	*0.3	13.6	8.3	2.8	68.3
Neurology	8,393	100.0	28.9	2.1	19.7	7.6	3.5	38.2
Pulmonary diseases ¹	4,251	100.0	9.9	1.1	9.1	11.2	6.3	62.4
All other specialties	62,991	100.0	11.5	*0.8	16.9	12.6	9.7	48.4

¹These specialties were sampled separately in 1993 only as part of a supplemental data collection project.

symptom(s), or other reason(s) for this visit in the patient's own words." Up to three reasons for visit are classified and coded from the survey according to the *Reason for Visit Classification for Ambulatory Care (RVC)* (6). The principal reason for visit is the problem, complaint, or reason listed in item 10a.

The RVC is divided into the eight modules or groups of reasons displayed in table 9. More than half of all visits were made for reasons classified as symptoms (57.7 percent). Respiratory symptoms accounted for 11.6 percent of all visits, and musculoskeletal symptoms accounted for 10.7 percent.

The 20 most frequently mentioned principal reasons for visit, representing 42.2 percent of all visits, are shown in table 10. General medical examination was the most frequently mentioned reason for visit (5.3 percent of the total), while cough was the most frequently mentioned reason related to illness or injury (3.4 percent). Nineteen of the top 20 reasons for office visits in 1993 were also listed among the 20 most frequently mentioned reasons in 1992, albeit in slightly different order. It should be noted that estimates that differ in ranked order may not be significantly different from each other.

Tests, procedures, and therapies

Statistics on tests, procedures, and therapies scheduled or performed by the physician during the office visit are displayed in tables 11–13. The 1993 NAMCS Patient Record form combined tests, surgical and nonsurgical procedures, and therapies (except counseling/education and medication therapy) into a single item, with six checkboxes for commonly performed services and space to record up to eight additional services. Results of the open-ended part of the item were coded according to the *International*

Table 5. Number and percent of office visits by patient's expected source(s) of payment: United States, 1993

Expected source(s) of payment ¹	Number of visits in thousands	Percent of all visits
All visits	717,191	...
Private/commercial insurance	277,596	38.7
Medicare	158,804	22.1
HMO/other prepaid ²	138,387	19.3
Patient paid	107,629	15.0
Medicaid	74,712	10.4
Other government	11,946	1.7
No charge	9,623	1.3
Other	25,618	3.6
Unknown	14,054	2.0

¹Numbers may not add to totals because more than one expected source of payment may be reported per visit.

²HMO is health maintenance organization.

Table 6. Number, percent distribution, and annual rate of injury-related office visits by patient's age, sex, and race: United States, 1993

Patient's age, sex, and race	Number of visits in thousands	Percent distribution	Number of visits per 100 persons per year ¹
All injury-related visits	83,980	100.0	33.0
Age			
Under 15 years	11,018	13.1	19.2
15-24 years	8,489	10.1	24.7
25-44 years	32,552	38.8	39.9
45-64 years	18,148	21.6	36.5
65-74 years	7,297	8.7	39.2
75 years and over	6,476	7.7	51.2
Sex and age			
Female	41,156	49.0	31.5
Under 15 years	4,798	5.7	17.2
15-24 years	3,667	4.4	21.3
25-44 years	14,979	17.8	36.2
45-64 years	8,982	10.7	34.8
65-74 years	4,078	4.9	39.8
75 years and over	4,653	5.5	59.0
Male	42,824	51.0	34.6
Under 15 years	6,220	7.4	21.2
15-24 years	4,822	5.7	28.2
25-44 years	17,573	20.9	43.7
45-64 years	9,166	10.9	38.3
65-74 years	3,219	3.8	38.5
75 years and over	1,823	2.2	38.2
Race			
White	75,140	89.5	35.6
Black	6,102	7.3	19.1
Asian/Pacific Islander	2,299	2.7	---
American Indian/Eskimo/Aleut	*439	*0.5	---

¹Based on U.S. Bureau of the Census estimates of the civilian noninstitutionalized population of the United States as of July 1, 1993.

Classification of Diseases, 9th revision, Clinical Modification, Volume 3, Procedures Classification (ICD-9-CM) (7). It was hoped that allowing physicians to record services in this way

would result in greater specificity of responses, thereby clarifying the large number of services generally recorded in the "other" checkbox category in previous versions of the survey. Data are

shown separately for the checkbox items (part a of item 14) and the open-ended response categories (part b) in keeping with the format used on the Patient Record form.

Slightly less than three-quarters (73.0 percent) of all office visits included one or more tests, procedures or therapies (excluding counseling/education and medication therapy that are collected in separate data items) (table 11). Blood pressure check was the most frequently mentioned checkbox category, recorded at half (49.8 percent) of the visits. Blood pressure checks were ordered or provided at a significantly higher proportion of visits by females (54.3 percent) than at visits by males (43.1 percent).

Other frequently mentioned services were "other" blood test (16.0 percent of visits) and urinalysis (13.5 percent). HIV serology was ordered or provided at 0.3 percent of office visits.

The top 25 diagnostic and therapeutic services (other than those reported in the checkbox categories on the Patient Record form) are shown in table 12. Pap smear, electrocardiogram, eye examinations, and routine chest x rays were among the most frequently mentioned procedures. Table 13 presents data on additional procedures that, while not among the top 25, were also of interest.

Physician's principal diagnosis

Item 11 of the Patient Record form asks the physician to record the principal diagnosis or problem associated with the patient's most important reason for the current visit as well as any other significant current diagnoses. Up to three diagnoses are coded and classified according to the ICD-9-CM (7). Displayed in table 14 are office visits by principal diagnosis using the major disease categories specified by the ICD-9-CM. The supplementary classification, used for diagnoses that are not classifiable to injury or illness (for example, general medical examination, routine prenatal examination, and health supervision of an infant or child), accounted for 15.6 percent of all office visits. Diseases of the respiratory system (13.8 percent) and diseases of the nervous system and

Table 7. Number and percent distribution of office visits made by patients who smoke cigarettes by patient's age, sex, and race: United States, 1993

<i>Patient's age, sex, and race</i>	<i>Number of visits in thousands</i>	<i>Percent distribution</i>
All visits by patients who smoke cigarettes	67,720	100.0
Age		
Under 15 years	*117	*0.2
15-24 years	6,121	9.0
25-44 years	27,692	40.9
45-64 years	22,541	33.3
65-74 years	8,357	12.3
75 years and over	2,891	4.3
Sex		
Female	39,928	59.0
Male	27,792	41.0
Race		
White	59,282	87.5
Black	6,389	9.4
Asian/Pacific Islander	1,498	2.2
American Indian/Eskimo/Aleut	*551	*0.8

sense organs (10.8 percent) were also prominent on the list.

The 20 most frequently reported principal diagnoses for 1993 are shown in table 15. These are categorized at the three-digit coding level of the ICD-9-CM, and accounted for 35.5 percent of all office visits made during the year. The most frequent diagnosis rendered by physicians at office visits in 1993 was

essential hypertension, occurring at 3.9 percent of all visits. Essential hypertension has been the most frequently reported morbidity-related diagnosis in every survey year since the NAMCS began in 1973. (Morbidity-related diagnoses are those classifiable to illness or injury. Nonmorbidity related diagnoses include routine prenatal examination, health supervision of an

infant or child, and general medical examination, among others.) Of the 20 diagnoses shown in table 15, 18 also appeared on the list of the 20 most frequent diagnoses for 1992.

Physician's checklist of medical conditions

In addition to the diagnostic data reported in item 11 of the Patient Record form, selected information on the patient's current health status was collected in item 13. Physicians were given a list of common conditions and asked to record whether the patient now has any of them, regardless of what was recorded as the current diagnosis in item 11. The list of conditions was modified for the 1993 NAMCS and will be expanded in the 1995 NAMCS. Results from item 13 are shown in table 16.

Slightly less than one-fifth (18.9 percent) of the visits were made by patients who were reported to have one or more of the five conditions listed on the survey form. Obesity was checked at 8.7 percent of the total, or 62.7 million office visits. Diabetes (5.6 percent), asthma (4.9 percent), and osteoporosis (2.5 percent) were all recorded at a greater proportion of visits in this item than as a diagnosis in item

Table 8. Number and percent distribution of office visits by physician specialty, according to patient's cigarette-smoking status: United States, 1993

<i>Physician specialty</i>	<i>Number of visits in thousands</i>	<i>Does patient smoke cigarettes?</i>			
		<i>Total</i>	<i>Yes</i>	<i>No</i>	<i>Unknown¹</i>
Percent distribution					
All visits	717,191	100.0	9.4	63.5	27.0
General and family practice	197,605	100.0	10.4	61.2	28.5
Internal medicine	102,436	100.0	13.8	70.9	15.3
Pediatrics	76,982	100.0	*0.6	94.1	5.3
Obstetrics and gynecology	64,030	100.0	10.1	65.3	24.7
Ophthalmology	39,373	100.0	3.4	40.5	56.1
Orthopedic surgery	33,638	100.0	11.7	40.0	48.4
Dermatology	31,469	100.0	4.7	41.2	54.1
General surgery	21,703	100.0	11.7	51.3	36.9
Psychiatry	20,469	100.0	19.3	60.1	20.5
Urology	15,690	100.0	9.4	48.3	42.4
Otolaryngology	15,380	100.0	8.3	71.9	19.8
Cardiovascular diseases	12,178	100.0	9.1	66.3	24.6
Allergy and immunology ²	10,605	100.0	4.5	73.5	22.0
Neurology	8,393	100.0	10.8	59.6	29.6
Pulmonary diseases ²	4,251	100.0	12.7	69.1	18.3
All other specialties	62,991	100.0	11.3	62.7	26.0

¹Includes entries of "unknown" and blank entries.

²These specialties were sampled separately in 1993 only as part of a supplemental data collection project.

Table 9. Number and percent distribution of office visits by patient's principal reason for visit: United States, 1993

Principal reason for visit and RVC code ¹	Number of visits in thousands	Percent distribution	
All visits	717,191	100.0	
Symptom module. S001-S999	414,163	57.7	
General symptoms. S001-S099	46,990	6.6	
Symptoms referable to psychological/mental disorders S100-S199	22,256	3.1	
Symptoms referable to the nervous system (excluding sense organs) S200-S259	22,556	3.1	
Symptoms referable to the cardiovascular/lymphatic system. S260-S299	3,748	0.5	
Symptoms referable to the eyes and ears S300-S399	51,514	7.2	
Symptoms referable to the respiratory system S400-S499	83,482	11.6	
Symptoms referable to the digestive system S500-S639	32,454	4.5	
Symptoms referable to the genitourinary system S640-S829	31,370	4.4	
Symptoms referable to the skin, hair, and nails. S830-S899	43,130	6.0	
Symptoms referable to the musculoskeletal system S900-S999	76,664	10.7	
Disease module D001-D999	63,981	8.9	
Diagnostic/screening and preventive module. X100-X599	115,728	16.1	
Treatment module T100-T899	67,537	9.4	
Injuries and adverse effects module J001-J999	23,248	3.2	
Test results module R100-R700	9,141	1.3	
Administrative module. A100-A140	7,939	1.1	
Other ² U990-U999	15,455	2.2	

¹Based on A Reason for Visit Classification for Ambulatory Care (RVC) (6).

²Includes problems and complaints not elsewhere classified, entries of "none," blanks, and illegible entries.

Table 10. Number and percent distribution of office visits by the 20 principal reasons for visit most frequently mentioned by patients, according to patient's sex: United States, 1993

Principal reason for visit and RVC code ¹	Number of visits in thousands	Patient's sex		
		Total	Female	Male
All visits	717,191	100.0	100.0	100.0
General medical examination X100	38,185	5.3	5.7	4.7
Routine prenatal examination X205	25,893	3.6	6.0	...
Cough S440	24,642	3.4	2.9	4.3
Progress visit, not otherwise specified T800	20,836	2.9	2.5	3.6
Postoperative visit T205	18,129	2.5	2.4	2.7
Symptoms referable to throat S455	17,263	2.4	2.5	2.3
Earache or ear infection S355	16,130	2.2	2.0	2.6
Well baby examination X105	14,023	2.0	1.7	2.3
Stomach pain, cramps, and spasms S545	13,027	1.8	2.0	1.6
Back symptoms. S905	12,768	1.8	1.5	2.2
Vision dysfunctions S305	12,416	1.7	1.9	1.4
Skin rash. S860	12,138	1.7	1.5	1.9
Headache, pain in head S210	10,736	1.5	1.8	1.0
Head cold, upper respiratory infection (coryza) S445	10,160	1.4	1.3	1.5
Fever S010	10,006	1.4	1.2	1.7
Nasal congestion. S400	9,872	1.4	1.3	1.5
Chest pain and related symptoms S050	9,535	1.3	1.2	1.5
Hypertension D510	9,503	1.3	1.2	1.5
Knee symptoms S925	8,824	1.2	1.1	1.5
Depression S110	8,758	1.2	1.3	1.0
All other reasons	414,347	57.8	57.0	59.2

¹Based on A Reason for Visit Classification for Ambulatory Care (RVC) (6).

11. It should be noted that in item 11, physicians are instructed to record up to two additional diagnoses, if any (in addition to the principal diagnosis), whether or not they are of direct concern to the current visit. The fact that higher estimates were produced by

item 13 than by item 11 may indicate that chronic conditions are underreported in item 11.

Medication therapy

In item 16, physicians were instructed to record all new or continued

medications ordered, supplied, or administered at the visit, including prescription and nonprescription preparations, immunization and desensitizing agents, and anesthetics. As used in the NAMCS, the term "drug" is interchangeable with the term

Table 11. Number and percent distribution of office visits by tests, surgical and nonsurgical procedures, and therapies ordered or provided, according to patient's sex: United States, 1993

Visit characteristic	Number of visits in thousands	Patient's sex		
		Total	Female	Male
All visits	717,191	100.0	100.0	100.0
Percent distribution				
Number of services ordered or provided ¹				
None	191,891	26.8	24.0	30.9
1	265,483	37.0	36.4	37.9
2	154,344	21.5	22.7	19.8
3	64,331	9.0	10.1	7.2
4	25,400	3.5	4.2	2.6
5	10,956	1.5	1.8	1.1
6 or more	4,787	0.7	0.8	0.4
Percent of visits				
Selected services ²				
Blood pressure	357,085	49.8	54.3	43.1
Urinalysis	96,674	13.5	15.8	10.0
Spirometry	4,577	0.6	0.6	0.7
Allergy testing	2,140	0.3	0.3	0.3
HIV serology ³	1,825	0.3	0.3	*0.2
Other blood test	114,904	16.0	16.5	15.3

¹Includes the six checkbox categories for selected services and up to eight other services recorded by the physician in the spaces provided on the Patient Record form. These include tests, imaging, surgeries and other procedures, and therapies with the exception of education/counseling and medication.

²Numbers may not add to totals because more than one service may be reported per visit.

³HIV is human immunodeficiency virus.

Table 12. Number and percent of office visits by the 25 write-in diagnostic and therapeutic procedures most often ordered or performed: United States, 1993

Diagnostic and therapeutic procedures ordered or performed and ICD-9-CM code ¹	Number of visits in thousands	Percent of all visits
All visits	717,191	...
Pap smear	91.46	19,613
Electrocardiogram	89.52	18,539
Other nonoperative measurements and examinations	89.39	18,268
Eye examination, not otherwise specified	95.09	17,179
Routine chest x ray	87.44	14,015
Other local excision or destruction of lesion or tissue of skin and subcutaneous tissue	86.3	13,881
Microscopic examination of specimen from ear, nose, throat, and larynx—culture	90.32	12,392
Other individual psychotherapy	94.39	11,570
Tonometry	89.11	10,267
Limited eye examination	95.01	9,659
Other mammography	87.37	9,363
Other physical therapy	93.39	7,313
General physical examination	89.7	6,562
Gynecological examination	89.26	5,650
Other diagnostic ultrasound	88.79	4,506
Audiometry	95.41	4,218
Diagnostic ultrasound of gravid uterus	88.78	4,198
Skeletal x ray of wrist and hand	88.23	4,149
Skeletal x ray of thigh, knee, and lower leg	88.27	3,978
Skeletal x ray of ankle and foot	88.28	3,881
Removal of other therapeutic device	97.89	3,355
Fundus photography	95.11	3,331
Manual examination of breast	89.36	2,964
Fetal monitoring, not otherwise specified	75.34	2,943
X ray, other and unspecified	88.39	2,873

¹Based on the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) (7).

“medication,” and the term “prescribing” is used broadly to mean ordering or providing any medication, whether prescription or over-the-counter. Visits with one or more drug mentions are termed “drug visits” in the NAMCS. Up to five medications, or drug mentions, were coded per drug visit.

The NAMCS drug data base permits classification by a wide range of variables, including specific product name, generic class, entry form chosen by the physician (that is, brand name, generic name, or the desired therapeutic effect), prescription status (that is, whether the product is prescription or nonprescription), federally controlled substance status, composition status (that is, single or multiple ingredient product), and therapeutic category. A report describing the method and instruments used to collect and process drug information for the NAMCS is available (8).

Data on medication therapy are shown in tables 17–21 and figure 2. Medication therapy was the most commonly mentioned therapeutic service

Table 13. Number and percent of office visits by selected diagnostic and therapeutic procedures: United States, 1993

Selected procedures and ICD-9-CM code ¹	Number of visits in thousands	Percent of all visits
All visits	717,191	...
Ophthalmoscopy 16.21	1,690	0.2
Other endoscopy of small intestine 45.13	1,709	0.2
Colonoscopy 45.23	955	0.1
Flexible sigmoidoscopy 45.24	1,446	0.2
Other cystoscopy 57.32	1,730	0.2
Closed biopsy of uterus 68.16	1,259	0.2
Vaginoscopy 70.21	1,057	0.1
Injection of therapeutic substance into joint or ligament 81.92	1,368	0.2
Other incision with drainage of skin and subcutaneous tissue 86.04	1,340	0.2
Biopsy of skin and subcutaneous tissue 86.11	2,687	0.4
Application of other cast 93.53	1,323	0.2
Application of splint 93.54	1,514	0.2
Irrigation of ear 96.52	2,745	0.4

¹Based on the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) (7)*.

Table 14. Number and percent distribution of office visits by physician's principal diagnosis: United States, 1993

Principal diagnosis and ICD-9-CM code ¹	Number of visits in thousands	Percent distribution
All visits	717,191	100.0
Infectious and parasitic diseases 001-139	21,828	3.0
Neoplasms 140-239	21,876	3.1
Endocrine, nutritional and metabolic diseases and immunity disorders 240-279	25,428	3.5
Mental disorders 290-319	33,613	4.7
Diseases of the nervous system and sense organs 320-389	77,737	10.8
Diseases of the circulatory system 390-459	57,564	8.0
Diseases of the respiratory system 460-519	99,114	13.8
Diseases of the digestive system 520-579	27,651	3.9
Diseases of the genitourinary system 580-629	41,281	5.8
Diseases of the skin and subcutaneous tissue 680-709	42,771	6.0
Diseases of the musculoskeletal system and connective tissue 710-739	51,910	7.2
Symptoms, signs, and ill-defined conditions 780-799	32,503	4.5
Injury and poisoning 800-999	46,161	6.4
Supplementary classification V01-V82	112,087	15.6
All other diagnoses ²	8,554	1.2
Unknown ³	17,112	2.4

¹Based on the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) (7)*.

²Includes diseases of the blood and blood-forming organs (280-289); complications of pregnancy, childbirth, and the puerperium (630-676); congenital anomalies (740-759); and certain conditions originating in the perinatal period (760-779).

³Includes blank diagnoses, uncodable diagnoses, and illegible diagnoses.

in 1993, reported at 467.3 million office visits or 65.2 percent of the total (table 17).

There were 913.5 million drug mentions at visits to office-based physicians during 1993. This yields an average of 1.3 drug mentions per office visit, or 2.0 drug mentions per drug visit.

Data on number of drug visits and drug mentions by physician specialty are

shown in table 18. Nine of every 10 visits to allergists and immunologists included at least one drug mention, as did 8 of every 10 visits to internists.

Drug mentions are displayed by therapeutic class in figure 2 and table 19. This classification is based on the therapeutic categories used in the *National Drug Code Directory, 1985* edition (NDC) (9). It should be noted

that some drugs have more than one therapeutic application. In these cases, the drug was listed under the NDC classification that occurred with the greatest frequency.

Cardiovascular-renal drugs (14.0 percent), antimicrobial agents (13.9 percent), and drugs used for pain relief (11.0 percent) were listed most frequently. About one-third (31.6 percent) of all mentions of antimicrobial agents were at visits made by persons under 15 years, and about two-thirds (69.4 percent) of the mentions of immunologic agents were at visits by this age group. Four of every 10 neurologic drug mentions (41.1 percent) occurred at visits by persons 25-44 years.

The 20 most frequently used generic substances for 1993 are shown in table 20. Drug products containing more than one ingredient (combination products) are included in the data for each ingredient. For example, acetaminophen with codeine is included in both the count for acetaminophen and the count for codeine. Amoxicillin was the generic ingredient most frequently used in drugs ordered or provided by the physician at office visits in 1993 (as well as in 1990-92), occurring in 3.9 percent of drug mentions.

Table 21 presents the 20 medications most frequently mentioned by physicians in the NAMCS, according to the entry name of drug. Entry name refers to the actual designation used by the physician on the Patient Record form and may be a trade name, generic name, or simply a desired therapeutic effect. Amoxicillin was the medication most frequently reported by physicians, with 19.2 million mentions (2.1 percent of the total). It was followed by Tylenol, Premarin, Lasix, Amoxil, and Prednisone, each accounting for 1.2 percent of the total. All of these were among the top 10 drug entry names mentioned in 1992.

Counseling and education

Data on counseling and education services ordered or provided at physicians' office visits were collected

Table 15. Number and percent distribution of office visits by the 20 principal diagnoses most frequently rendered by physicians, according to patient's sex: United States, 1993

Principal diagnosis and ICD-9-CM code ¹	Number of visits in thousands	Patient's sex		
		Total	Female	Male
		Percent distribution		
All visits	717,191	100.0	100.0	100.0
Essential hypertension 401	28,124	3.9	3.9	3.9
Normal pregnancy V22	26,489	3.7	6.2	...
Suppurative and unspecified otitis media 382	19,309	2.7	2.0	3.7
General medical examination V70	19,065	2.7	2.4	3.0
Health supervision of infant or child V20	18,508	2.6	2.2	3.2
Acute upper respiratory infections of multiple or unspecified sites 465	17,557	2.4	2.2	2.8
Diabetes mellitus 250	12,997	1.8	1.7	2.0
Chronic sinusitis 473	11,594	1.6	1.8	1.3
Asthma 493	11,340	1.6	1.6	1.5
Bronchitis, not specified as acute or chronic 490	10,093	1.4	1.3	1.5
Allergic rhinitis 477	9,637	1.3	1.4	1.3
Acute pharyngitis 462	9,576	1.3	1.3	1.3
Diseases of sebaceous glands 706	9,193	1.3	1.3	1.3
Neurotic disorders 300	8,532	1.2	1.1	1.3
Other postsurgical states V45	7,880	1.1	1.2	1.0
Affective psychoses 296	7,351	1.0	1.1	0.9
Special investigations and examinations V72	7,111	1.0	1.5	0.3
Contact dermatitis and other eczema 692	6,919	1.0	0.8	1.2
Osteoarthritis and allied disorders 715	6,890	1.0	1.0	0.9
Cataract 366	6,739	0.9	1.0	0.8
All other diagnoses	462,287	64.5	63.0	66.8

¹Based on the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) (7)*.

Table 16. Number and percent of office visits by selected medical conditions, according to patient's age and sex: United States, 1993

Medical condition ¹	All ages, both sexes	Patient's age						Patient's sex	
		Under 15 years	15-24 years	25-44 years	45-64 years	65-74 years	75 years and over	Female	Male
Number of visits in thousands									
All visits	717,191	129,279	62,346	193,914	160,146	93,873	77,633	430,170	287,021
Obesity	62,707	2,286	3,580	16,896	23,508	11,145	5,291	43,171	19,536
Diabetes	40,358	*229	*765	4,692	14,366	12,496	7,810	22,992	17,366
Asthma	35,154	9,098	2,771	8,946	7,214	4,258	2,865	20,634	14,520
Osteoporosis	17,752	*262	*6	*399	2,388	5,931	8,766	15,049	2,703
HIV ²	1,343	...	*120	939	*212	*73	...	*503	840
None of the above	581,632	117,672	55,416	164,986	120,028	67,012	56,518	343,225	238,407
Percent of visits									
All visits . . . . .	...	...	...	...	...	...	...	...	...
Obesity	8.7	1.8	5.7	8.7	14.7	11.9	6.8	10.0	6.8
Diabetes	5.6	*0.2	*1.2	2.4	9.0	13.3	10.1	5.3	6.1
Asthma	4.9	7.0	4.4	4.6	4.5	4.5	3.7	4.8	5.1
Osteoporosis	2.5	*0.2	*0.0	*0.2	1.5	6.3	11.3	3.5	0.9
HIV ²	0.2	...	*0.2	0.5	*0.1	*0.1	...	*0.1	0.3
None of the above	81.1	91.0	88.9	85.1	74.9	71.4	72.8	79.8	83.1

¹Numbers may not add to totals because more than one condition may be reported per visit.
²HIV is human immunodeficiency virus.

in item 15 of the Patient Record form. As shown in table 22, counseling and education services were recorded at about half (48.5 percent) of all office visits during 1993. Exercise

(9.0 percent), weight reduction (5.7 percent), and growth/development (4.2 percent) were mentioned most frequently. One-third of visits (34.2 percent) included "other" counseling

not included in one of the nine checkbox categories.

The counseling and education categories of injury prevention, HIV transmission, and other STD

Table 17. Number and percent distribution of office visits by medication therapy and number of medications provided or prescribed, according to patient's sex: United States, 1993

Visit characteristic	Number of visits in thousands	Patient's sex		
		Total	Female	Male
Percent distribution				
Medication therapy¹				
All visits	717,191	100.0	100.0	100.0
Drug visits ²	467,301	65.2	65.0	65.5
Visits without mention of medication	249,890	34.8	35.0	34.5
Number of medications provided or prescribed by physician				
All visits	717,191	100.0	100.0	100.0
None	249,890	34.8	35.0	34.5
1	226,541	31.6	30.8	32.8
2	124,634	17.4	17.4	17.4
3	56,803	7.9	7.9	7.9
4	29,329	4.1	4.5	3.5
5 or more	29,994	4.2	4.4	3.9

¹Includes prescription drugs, over-the-counter preparations, immunizing agents, and desensitizing agents.

²Visits at which one or more drugs were provided or prescribed by the physician.

Table 18. Number and percent distribution of drug visits and drug mentions by physician specialty: United States, 1993

Physician specialty	Number of drug visits in thousands ¹	Percent distribution	Percent of drug visits ²		
			Number of drug mentions in thousands	Percent distribution	Percent of drug visits ²
All specialties	467,301	100.0	913,503	100.0	65.2
General and family practice	147,257	31.5	296,201	32.4	74.5
Internal medicine	81,874	17.5	187,379	20.5	79.9
Pediatrics	54,773	11.7	89,594	9.8	71.2
Obstetrics and gynecology	29,736	6.4	44,818	4.9	46.4
Dermatology	21,255	4.5	38,635	4.2	67.5
Ophthalmology	19,230	4.1	33,686	3.7	48.8
Psychiatry	15,161	3.2	30,379	3.3	74.1
Orthopedic surgery	11,783	2.5	17,656	1.9	35.0
Allergy and immunology ³	9,861	2.1	20,738	2.3	93.0
Cardiovascular diseases	8,614	1.8	24,800	2.7	70.7
Otolaryngology	7,949	1.7	12,945	1.4	51.7
General surgery	7,189	1.5	12,908	1.4	33.1
Urology	6,350	1.4	8,611	0.9	40.5
Neurology	4,953	1.1	9,356	1.0	59.0
Pulmonary diseases ³	3,312	0.7	9,743	1.1	77.9
All other specialties	38,006	8.1	76,054	8.3	60.3

¹Visits at which one or more drugs were provided or prescribed by the physician.

²Number of drug visits divided by number of office visits multiplied by 100.

³These specialties were sampled separately in 1993 only as part of a supplemental data collection project.

transmission were added to the 1993 Patient Record form. Such services were ordered or provided at 2.6 percent, 1.3 percent, and 1.4 percent of visits, respectively.

Disposition of visit

Two-thirds of office visits (66.7 percent) included a scheduled followup visit or telephone call in 1993.

One-quarter (23.3 percent) of office visits included instructions to return if needed. Less than 1 percent of visits resulted in a hospital admission. Table 23 displays data on disposition of office visits.

Duration of visit

Data on the duration of office visits is presented in table 24. Duration of

visit refers to the amount of time spent in face-to-face contact between the physician and the patient. This time is estimated and recorded by the physician and does not include time spent waiting to see the physician, time spent receiving care from someone other than the physician without the presence of the physician, or time spent by the physician in reviewing patient records

Table 19. Number and percent distribution of drug mentions by patient's age, according to therapeutic classification: United States, 1993

Therapeutic classification ¹	Number of drug mentions in thousands	Total	Patient's age					
			Under 15 years	15-24 years	25-44 years	45-64 years	65-74 years	75 years and over
			Percent distribution					
All drug mentions	913,503	100.0	15.1	6.7	22.8	24.7	15.9	14.9
Cardiovascular-renal drugs	127,549	100.0	*0.7	*0.7	7.7	29.3	28.2	33.4
Antimicrobial agents	127,190	100.0	31.6	10.6	25.7	18.6	8.0	5.6
Drugs used for relief of pain	100,898	100.0	9.0	5.2	29.9	26.6	15.7	13.6
Respiratory tract drugs	87,751	100.0	26.3	8.7	26.6	21.2	10.1	7.2
Hormones and agents affecting hormonal mechanisms	85,421	100.0	4.2	5.2	21.3	36.6	20.1	12.7
Psychopharmacologic drugs	62,592	100.0	5.6	4.9	33.1	31.0	14.5	10.9
Skin/mucous membrane	54,551	100.0	14.5	16.5	29.7	20.9	10.1	8.2
Metabolic and nutrient agents	43,427	100.0	8.3	11.2	25.8	19.5	17.1	18.2
Immunologic agents	39,732	100.0	69.4	2.3	6.2	6.8	7.6	7.7
Gastrointestinal agents	38,658	100.0	4.3	4.3	23.5	28.4	21.4	18.1
Ophthalmic drugs	31,320	100.0	8.9	*3.6	13.9	19.0	23.9	30.6
Neurologic drugs	20,418	100.0	*3.5	*5.0	41.1	27.5	10.9	12.0
Hematologic agents	16,219	100.0	*3.2	12.2	18.6	18.6	20.6	26.7
Other and unclassified ²	77,777	100.0	16.6	7.6	23.8	26.2	13.7	12.0

¹Based on the standard drug classification used in the *National Drug Code Directory*, 1985 edition (NDC) (9).

²Includes anesthetics, antidotes, radiopharmaceuticals/contrast media, oncology, otology, antiparasitics, and unclassified/miscellaneous drugs.

and/or test results. In cases where the patient received care from a member of the physician's staff but did not actually see the physician during the visit, duration was recorded as "0" minutes.

Nearly two-thirds (63.5 percent) of physicians' office visits had a duration of 15 minutes or less in 1993. The mean duration time for all visits was 18.4 minutes. Corresponding numbers for 1992 were 66.6 percent and 17.6 minutes, respectively.

Additional reports utilizing 1993 NAMCS data are forthcoming in the Advance data from Vital and Health Statistics series. Data from the 1993 NAMCS will be available on computer tape and CD-ROM from the National Technical Information Service in early 1996. Questions regarding this report, future reports, or the NAMCS may be directed to the Ambulatory Care Statistics Branch by calling (301) 436-7132.

Table 20. The 20 most frequently occurring generic substances in drug mentions at office visits by number of occurrences and percent of all drug mentions: United States, 1993

Generic substance	Number of occurrences in thousands ¹	Percent of all drug mentions ²
All generic substances	1,080,968	...
Amoxicillin	35,234	3.9
Acetaminophen	34,277	3.8
Hydrochlorothiazide	15,217	1.7
Albuterol	14,943	1.6
Ibuprofen	14,405	1.6
Multivitamins—general	14,064	1.5
Erythromycin	13,459	1.5
Aspirin	13,293	1.5
Phenylephrine	12,568	1.4
Guaifenesin	11,727	1.3
Estrogens	11,660	1.3
Furosemide	11,212	1.2
Prednisone	10,833	1.2
Codeine	10,153	1.1
Digoxin	9,964	1.1
Trimethoprim	9,886	1.1
Diltiazem	9,541	1.0
Hydrocortisone	9,516	1.0
Phenylpropanolamine	9,485	1.0
Ranitidine	9,325	1.0

¹Frequency of mention combines single-ingredient agents with mentions of the agent as an ingredient in a combination drug.

²Based on an estimated 913,503,000 drug mentions in 1993.

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Table 21. Number, percent distribution, and therapeutic classification for the 20 drugs most frequently prescribed at office visits, by entry name of drug: United States, 1993

Entry name of drug ¹	Number of drug mentions in thousands	Percent distribution	Therapeutic classification ²
All drug mentions	913,503	100.0	...
Amoxicillin	19,212	2.1	Penicillins
Tylenol	11,225	1.2	General analgesics
Premarin	10,675	1.2	Estrogens and progestins
Lasix	10,578	1.2	Diuretics
Amoxil	10,569	1.2	Penicillins
Prednisone	10,562	1.2	Adrenal corticosteroids
Zantac	9,303	1.0	Agents used in disorders of upper GI tract
Cardizem	8,977	1.0	Antianginal agents
Allergy relief or shots	8,029	0.9	Diagnostics, nonradioactive and radiopaque
Influenza virus vaccine	7,685	0.8	Vaccines and antiserums
Procardia	7,575	0.8	Antianginal agents
Lanoxin	7,177	0.8	Cardiac glycosides
Synthroid	7,169	0.8	Agents used to treat thyroid disease
Vasotec	7,032	0.8	Antihypertensive agents
Diphtheria/Tetanus Toxoids/Pertussis	6,994	0.8	Vaccines and antiserums
Ventolin	6,940	0.8	Bronchodilators, antiasthmatics
Prenatal formula (vitamins)	6,902	0.8	Vitamins, minerals
Naprosyn	6,769	0.7	Antiarthritics
Proventil	6,626	0.7	Bronchodilators, antiasthmatics
Prozac	6,462	0.7	Antidepressants
All other	737,042	80.7	...

¹The entry made by the physician on the prescription or other medical records. This may be a trade name, generic name, or desired therapeutic effect.

²Based on the *National Drug Code Directory*, 1985 Edition (NDC) (9). In cases where a drug had more than one therapeutic use, it was listed under the NDC category that occurred with the highest frequency.

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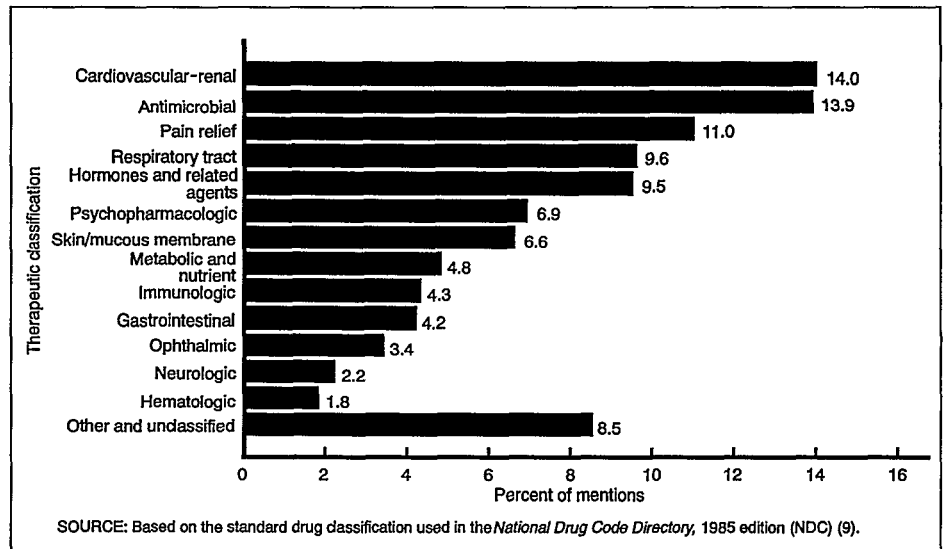


Figure 2. Percent distribution of drug mentions at office visits by therapeutic classification: United States, 1993

Table 22. Number and percent of office visits by counseling/education ordered or provided: United States, 1993

Counseling/education ordered or provided ¹	Number of visits in thousands	Patient's sex		
		Total	Female	Male
		Percent of visits		
All visits	717,191	...	...	...
None	369,494	51.5	50.4	53.2
Exercise	64,257	9.0	8.9	9.0
Weight reduction	40,715	5.7	5.9	5.3
Growth/development	30,255	4.2	4.2	4.3
Cholesterol reduction	27,063	3.8	3.7	3.9
Smoking cessation	22,674	3.2	3.1	3.3
Injury prevention	21,786	3.0	2.6	3.8
STD transmission (except HIV) ^{2,3}	10,216	1.4	1.8	0.9
HIV transmission ³	9,114	1.3	1.5	1.0
Other	245,261	34.2	35.4	32.5

¹Numbers may not add to totals because more than one type of counseling/education may be reported per visit.

²STD is sexually transmitted diseases.

³HIV is human immunodeficiency virus.

Table 23. Number and percent of office visits by disposition of visit: United States, 1993

Disposition ¹	Number of visits in thousands	Percent of all visits
All visits	717,191	...
Return at specified time	447,169	62.4
Return if needed	166,947	23.3
No followup planned	61,687	8.6
Telephone followup planned	30,937	4.3
Referred to other physician	26,411	3.7
Admit to hospital	6,022	0.8
Returned to referring physician	8,960	1.2
Other	13,954	1.9

¹Numbers may not add to totals because more than one disposition may be reported per visit.

Table 24. Number and percent distribution of office visits by duration of visit: United States, 1993

Duration	Number of visits in thousands	Percent distribution
All visits	717,191	100.0
0 minutes ¹	17,484	2.4
1–5 minutes	40,611	5.7
6–10 minutes	177,841	24.8
11–15 minutes	219,418	30.6
16–30 minutes	204,296	28.5
31 minutes and over	57,540	8.0

¹Visits in which there was no face-to-face contact between patient and physician.

Technical notes

Source of data and sample design

The information presented in this report is based on data collected by means of the National Ambulatory Medical Care Survey (NAMCS) from January 4, 1993, through January 2, 1994. The target universe of NAMCS includes office visits made in the United States by ambulatory patients to nonfederally employed physicians who are principally engaged in office practice, but not in the specialties of anesthesiology, pathology, or radiology. Telephone contacts and nonoffice visits are excluded.

A multistage probability sample design is used in NAMCS, involving samples of primary sampling units (PSU's), physician practices within PSU's, and patient visits within physician practices. The PSU's are counties, groups of counties, county equivalents (such as parishes or independent cities), or towns and townships (for some PSU's in New England). For 1993, a sample of 3,400 nonfederal, office-based physicians was selected from master files maintained by the American Medical Association and American Osteopathic Association. Physicians were screened at the time of the survey to ensure that they were eligible for survey participation. Of those screened, 936 physicians were ruled ineligible (out-of-scope) due to reasons of being retired, employed primarily in teaching, research, or administration, or other reasons. The remaining 2,464 physicians were in-scope, or eligible to participate in the survey. The physician response rate for the 1993 NAMCS was 73.0 percent.

Sample physicians were asked to complete Patient Record forms (figure 1) for a systematic random sample of office visits occurring during a randomly assigned 1-week reporting period. Responding physicians completed 35,978 Patient Record forms.

Characteristics of the physician's practice, such as primary specialty and type of practice, were obtained from the physicians during an induction

interview. The U.S. Bureau of the Census, Housing Surveys Branch, was responsible for the survey's data collection. Processing operations and medical coding were performed by the National Center for Health Statistics, Health Care Survey Section, Research Triangle Park, North Carolina.

Sampling errors

The standard error is primarily a measure of the sampling variability that occurs by chance when only a sample, rather than an entire universe, is surveyed. The standard error also reflects part of the measurement error, but does not measure any systematic biases in the data. The chances are 95 out of 100 that an estimate from the sample differs from the value that would be obtained from a complete census by less than twice the standard error.

The standard errors used in tests of significance for this report were calculated using generalized linear models for predicting the relative standard error for estimates based on the linear relationship between the actual standard error, as approximated using SUDAAN software, and the size of the estimate. SUDAAN computes standard errors by using a first-order Taylor approximation of the deviation of estimates from their expected values. A description of the software and the approach it uses has been published (10). The relative standard error (RSE) of an estimate is obtained by dividing the standard error by the estimate itself. The result is then expressed as a percent of the estimate.

Relative standard errors (RSE's) for estimated numbers of office visits in 1993 are shown in table I; relative standard errors for estimated numbers of drug mentions are presented in table II. Standard errors for estimated percents of visits and drug mentions are displayed in tables III and IV. Multiplying the estimate by the RSE will provide an approximation of the standard error for the estimate.

Alternatively, relative standard errors for aggregate estimates may be calculated using the following general formula, where x is the aggregate of

Table I. Approximate relative standard errors for estimated numbers of office visits: National Ambulatory Medical Care Survey, 1993

<i>Estimated number of office visits in thousands</i>	<i>Relative standard error in percent</i>
100	83.2
200	58.9
500	37.4
781	30.0
1,000	26.6
2,000	19.0
5,000	12.3
10,000	9.1
20,000	7.0
50,000	5.3
100,000	4.6
200,000	4.2
500,000	3.9
1,000,000	3.8

NOTE: The smallest reliable estimate for visits to aggregated specialties is 781,000 visits. Estimates below this figure have a relative standard error greater than 30 percent and are deemed unreliable by NCHS standards. Example of use of table: An aggregate estimate of 10 million visits has a relative standard error of 9.1 percent or a standard error of 910,000 visits (9.1 percent of 10 million).

Table II. Approximate relative standard errors for estimated numbers of drug mentions: National Ambulatory Medical Care Survey, 1993

<i>Estimated number of drug mentions in thousands</i>	<i>Relative standard error in percent</i>
100	114.4
200	81.0
500	51.4
1,000	36.5
1,496	30.0
2,000	26.1
5,000	17.0
10,000	12.5
20,000	9.6
50,000	7.3
100,000	6.3
200,000	5.8
500,000	5.4
1,000,000	5.3

NOTE: The smallest reliable estimate of drug mentions for aggregated specialties is 1,496,000 mentions. Estimates below this figure have a relative standard error greater than 30 percent and are deemed unreliable by NCHS standards. Example of use of table: An aggregate estimate of 100 million drug mentions has a relative standard error of 6.3 percent or a standard error of 6,300,000 mentions (6.3 percent of 100 million).

interest in thousands, and A and B are the appropriate coefficients from table V.

$$RSE(x) = \sqrt{A + \frac{B}{x}} \cdot 100$$

Similarly, relative standard errors for percents may be calculated using the

Table III. Approximate standard errors of percents of estimated numbers of office visits: National Ambulatory Medical Care Survey, 1993

Base of percent (visits in thousands)	Estimated percent						
	1 or 99	5 or 95	10 or 90	20 or 80	30 or 70	40 or 60	50
Standard error in percentage points							
100	8.3	18.1	25.0	33.3	38.1	40.7	41.6
200	5.9	12.8	17.6	23.5	27.0	28.8	29.4
500	3.7	8.1	11.2	14.9	17.0	18.2	18.6
1,000	2.6	5.7	7.9	10.5	12.1	12.9	13.2
2,000	1.9	4.1	5.6	7.4	8.5	9.1	9.3
5,000	1.2	2.6	3.5	4.7	5.4	5.8	5.9
10,000	0.8	1.8	2.5	3.3	3.8	4.1	4.2
20,000	0.6	1.3	1.8	2.4	2.7	2.9	2.9
50,000	0.4	0.8	1.1	1.5	1.7	1.8	1.9
100,000	0.3	0.6	0.8	1.1	1.2	1.3	1.3
200,000	0.2	0.4	0.6	0.7	0.9	0.9	0.9
500,000	0.1	0.3	0.4	0.5	0.5	0.6	0.6
1,000,000	0.1	0.2	0.3	0.3	0.4	0.4	0.4

NOTE: Example of use of table: An estimate of 30 percent based on an aggregate estimate of 10 million visits has a standard error of 3.5 percent or a relative standard error of 11.7 percent (3.5 percent divided by 30 percent).

Table IV. Approximate standard errors of percents of estimated numbers of drug mentions: National Ambulatory Medical Care Survey, 1993

Base of percent (visits in thousands)	Estimated percent						
	1 or 99	5 or 95	10 or 90	20 or 80	30 or 70	40 or 60	50
Standard error in percentage points							
100	11.4	24.9	34.3	45.7	52.4	56.0	57.1
200	8.0	17.6	24.2	32.3	37.0	39.6	40.4
500	5.1	11.1	15.3	20.4	23.4	25.0	25.6
1,000	3.6	7.9	10.8	14.5	16.6	17.7	18.1
2,000	2.5	5.6	7.7	10.2	11.7	12.5	12.8
5,000	1.6	3.5	4.9	6.5	7.4	7.9	8.1
10,000	1.1	2.5	3.4	4.6	5.2	5.6	5.7
20,000	0.8	1.8	2.4	3.2	3.7	4.0	4.0
50,000	0.5	1.1	1.5	2.0	2.3	2.5	2.6
100,000	0.4	0.8	1.1	1.5	1.7	1.8	1.8
200,000	0.3	0.6	0.8	1.0	1.2	1.3	1.3
500,000	0.2	0.4	0.5	0.7	0.7	0.8	0.8
1,000,000	0.1	0.3	0.3	0.5	0.5	0.6	0.6

NOTE: Example of use of table: An estimate of 30 percent based on an aggregate estimate of 100 million drug mentions has a standard error of 1.7 percent or a relative standard error of 5.7 percent (1.7 percent divided by 30 percent).

following general formula, where *p* is the percent of interest expressed as a proportion, and *x* is the denominator of the percent in thousands, using the appropriate coefficient from table V.

$$RSE(x) = \sqrt{\frac{B \cdot (1-p)}{p \cdot x}} \cdot 100$$

Adjustments for nonresponse

Estimates from NAMCS data were adjusted to account for sample physicians who were in-scope but did not participate in the study. This adjustment was calculated to minimize the impact of response on final estimates

by imputing to nonresponding physicians data from visits to similar physicians. For this purpose, physicians were judged similar if they had the same specialty designation and practiced in the same PSU.

Test of significance and rounding

In this report, the determination of statistical inference is based on the two-tailed *t*-test. The Bonferroni inequality was used to establish the critical value for statistically significant differences (0.05 level of significance) based on the number of possible comparisons within a particular variable

(or combination of variables) of interest. Terms relating to differences such as "greater than" or "less than" indicate that the difference is statistically significant. A lack of comment regarding the difference between any two estimates does not mean that the difference was tested and found to be not significant.

In the tables, estimates of office visits have been rounded to the nearest thousand. Consequently, estimates will not always add to totals. Rates and percents were calculated from original unrounded figures and do not necessarily agree with percents calculated from rounded data.

Table V. Coefficients appropriate for determining relative standard errors by type of estimate and physician specialty: National Ambulatory Medical Care Survey, 1993

Type of estimate and physician specialty	Coefficient for use with estimates in thousands	
	A	B
Visits		
Overall total	0.001402906	69.14991889
General and family practice	0.00967743	82.86427569
Osteopathy	0.009694146	21.982539
Internal medicine	0.009613634	66.93051288
Pediatrics	0.01497736	43.04423624
General surgery	0.004562476	6.18923111
Obstetrics and gynecology	0.01215906	45.17522836
Orthopedic surgery	0.01847372	30.1373659
Cardiovascular diseases	0.01842725	13.33081384
Dermatology	0.01300847	14.22174725
Urology	0.01482425	10.21006093
Psychiatry	0.01111663	8.36850241
Neurology	0.01082749	4.46207203
Ophthalmology	0.01380671	23.79909861
Otolaryngology	0.01594593	7.10113491
Allergy and immunology ¹	0.02015721	3.35915068
Pulmonary diseases ¹	0.01604307	2.76807823
All other specialties	0.01185348	45.14667587
Drug mentions		
Overall total	0.002655818	130.60816
General and family practice	0.01454036	153.42208
Osteopathy	0.01482355	34.91826215
Internal medicine	0.01501777	127.67927
Pediatrics	0.02139038	29.86328192
General surgery	0.02674708	6.25993055
Obstetrics and gynecology	0.02833093	47.78172168
Orthopedic surgery	0.03190595	31.27018391
Cardiovascular diseases	0.02412645	28.653378
Dermatology	0.02064188	14.49471796
Urology	0.03026505	10.1235506
Psychiatry	0.02554631	11.76240189
Neurology	0.01978151	5.29800076
Ophthalmology	0.02642952	39.03224396
Otolaryngology	0.03147744	6.68505135
Allergy and immunology ¹	0.02579988	6.30451913
Pulmonary diseases ¹	0.02283295	5.93833904
All other specialties	0.02135922	59.19073373

¹Physician strata added as a supplement to the 1993 NAMCS only.

Definition of terms

Ambulatory patient—An ambulatory patient is an individual seeking personal health services who is not currently admitted to any health care institution on the premises.

Drug mention—A drug mention is the physician's entry on the Patient Record form of a pharmaceutical agent—by any route of administration—for prevention, diagnosis, or treatment. Generic as well as brand-name drugs are included, as are nonprescription and prescription drugs. Along with all new drugs, the physician also records continued medications if the patient was

specifically instructed during the visit to continue the medication. Physicians may report up to five medications per visit.

Drug visit—A drug visit is a visit at which medication was prescribed or provided by the physician.

Office—An office is the space identified by a physician as a location for his or her ambulatory practice. Offices customarily include consultation, examination, or treatment spaces that patients associate with the particular physician.

Physician—A physician is a duly licensed doctor of medicine (M.D.) or doctor of osteopathy (D.O.) who is currently in office-based practice and

who spends some time caring for ambulatory patients. Excluded from the NAMCS are physicians who are hospital based; who specialize in anesthesiology, pathology, or radiology; who are federally employed; who treat only institutionalized patients; or who are employed full time by an institution and spend no time seeing ambulatory patients.

Visit—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 personal health services. Excluded from the NAMCS are visits where medical care was not provided, such as visits made to drop off specimens, pay bills, make appointments, and walk-outs.

Symbols

- Data not available
 - ... Category not applicable
 - Quantity zero
 - 0.0 Quantity more than zero but less than 0.05
 - Z Quantity more than zero but less than 500 where numbers are rounded to thousands
 - * Figure does not meet standard of reliability or precision
-

Trade name disclaimer

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