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Advance Data

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National Ambulatory Medical Care Survey: 1997 Summary

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Abstract

Objective—This report describes ambulatory care visits made to physician offices within the United States. Statistics are presented on selected characteristics of the physician's practice, the patient, and the visit.

Methods—The data presented in this report were collected from the 1997 National Ambulatory Medical Care Survey (NAMCS). NAMCS is part of the ambulatory care component of the National Health Care Survey, which measures health care utilization across various types of providers. NAMCS is a national probability sample survey of visits to office-based physicians in the United States. Sample data are weighted to produce annual estimates.

Results—During 1997 an estimated 787.4 million visits were made to physician offices in the United States, an overall rate of 3.0 visits per person. One quarter of these visits were made to general and family physicians, which was a significantly higher proportion compared to the other 13 specialties. Persons aged 75 years and over had the highest rate of physician office visits, 6.5 visits per person. Females had a significantly higher rate of visits to physician offices than males overall, as did white persons compared with black persons. Of all visits made to these offices in 1997, approximately 50 percent listed private insurance as the primary expected source of payment, and almost 30 percent were made by patients belonging to a health maintenance organization (HMO). There were an estimated 81.6 million injury-related visits during 1997, or 30.6 visits per 100 persons. Two-thirds of these visits were for unintentional injuries.

Keywords: physicians • diagnoses • injury • ICD–9–CM

Introduction

The National Ambulatory Medical Care Survey (NAMCS), which began in 1973, collects data on the utilization of ambulatory medical care services provided by office-based physicians. It was conducted annually until 1981, again in 1985, and resumed an annual schedule in 1989. The NAMCS is complemented by the National Hospital Ambulatory Medical Care Survey (NHAMCS), which was inaugurated in 1992 to expand the scope of data collection to the medical services provided by hospital outpatient and emergency departments. Together NAMCS and NHAMCS data provide an important tool for tracking ambulatory care utilization in the United States. A third survey, the National Survey of Ambulatory Surgery, was launched in 1994 to focus on the rapidly increasing use of ambulatory surgery centers that are not covered in the NAMCS or the NHAMCS. These surveys are part of the National Health Care Survey, which measures health care utilization across various types of providers. More information about the National Health Care Survey can be found at the National Center for Health Statistics (NCHS) Internet address: www.cdc.gov/nchswww/about/major/nhcs/nhcs.htm. For additional information on the NHAMCS (hospital outpatient and emergency departments), please refer to the 1997 annual summaries (1,2). A separate report combining NAMCS and NHAMCS data provides a comprehensive picture of ambulatory medical care utilization (3). It shows that 82 percent of ambulatory care, as identified by the NAMCS and the NHAMCS, is provided in office-based practices.

This report presents national annual estimates of physician office visits for

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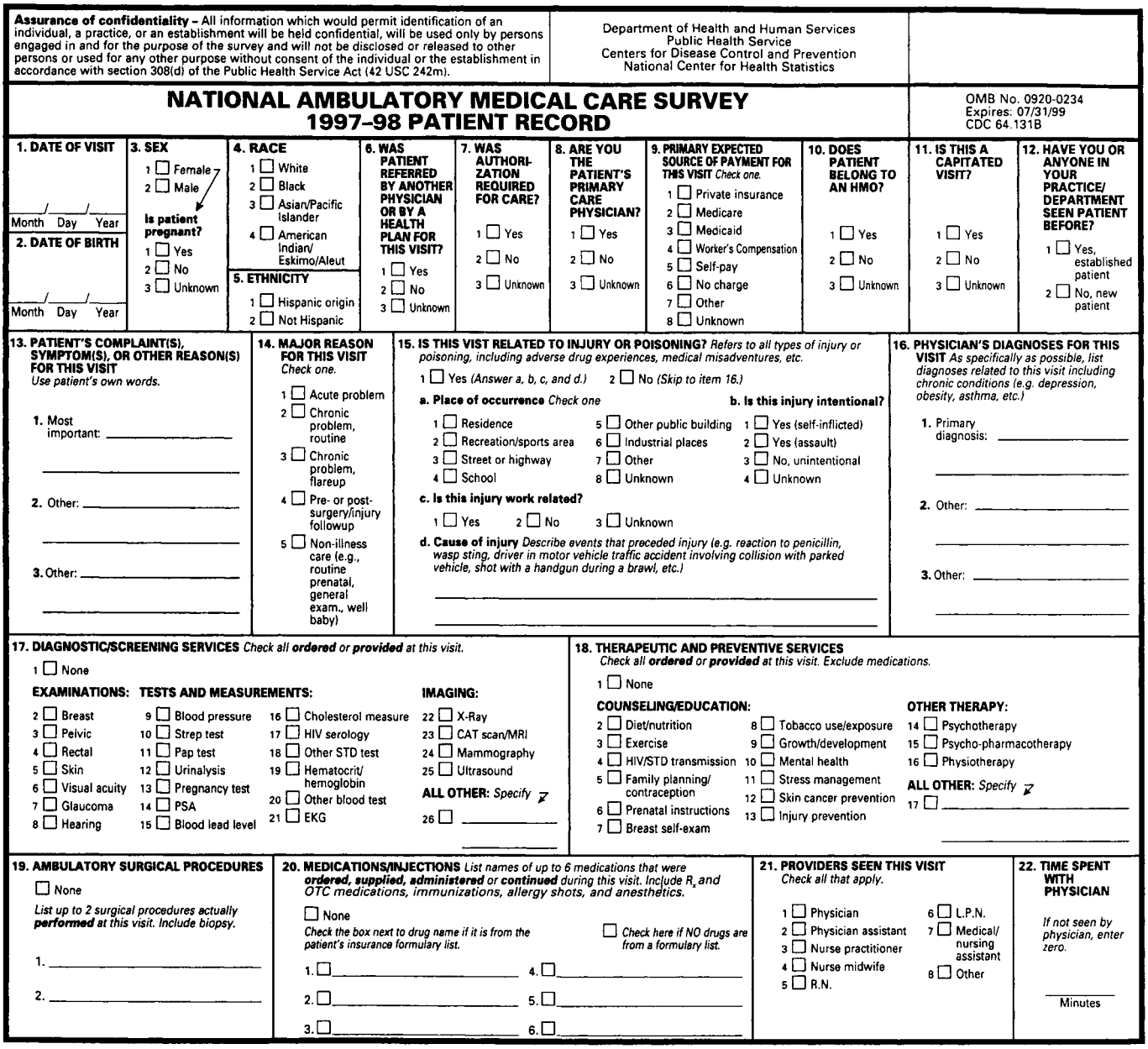


Assurance of confidentiality – All information which would permit identification of an individual, a practice, or an establishment will be held confidential, will be used only by persons engaged in and for the purpose of the survey and will not be disclosed or released to other persons or used for any other purpose without consent of the individual or the establishment in accordance with section 308(d) of the Public Health Service Act (42 USC 242m).

Department of Health and Human Services
Public Health Service
Centers for Disease Control and Prevention
National Center for Health Statistics

NATIONAL AMBULATORY MEDICAL CARE SURVEY
1997–98 PATIENT RECORD

OMB No. 0920-0234
Expires: 07/31/99
CDC 64.131B

1. DATE OF VISIT Month Day Year
2. DATE OF BIRTH Month Day Year
3. SEX 1 Female 2 Male — Is patient pregnant? 1 Yes 2 No 3 Unknown
4. RACE 1 White 2 Black 3 Asian/Pacific Islander 4 American Indian/Eskimo/Aleut
5. ETHNICITY 1 Hispanic origin 2 Not Hispanic
6. WAS PATIENT REFERRED BY ANOTHER PHYSICIAN OR BY A HEALTH PLAN FOR THIS VISIT? 1 Yes 2 No 3 Unknown
7. WAS AUTHORIZATION REQUIRED FOR CARE? 1 Yes 2 No 3 Unknown
8. ARE YOU THE PATIENT'S PRIMARY CARE PHYSICIAN? 1 Yes 2 No 3 Unknown
9. PRIMARY EXPECTED SOURCE OF PAYMENT FOR THIS VISIT *Check one.* 1 Private insurance 2 Medicare 3 Medicaid 4 Worker's Compensation 5 Self-pay 6 No charge 7 Other 8 Unknown
10. DOES PATIENT BELONG TO AN HMO? 1 Yes 2 No 3 Unknown
11. IS THIS A CAPITATED VISIT? 1 Yes 2 No 3 Unknown
12. HAVE YOU OR ANYONE IN YOUR PRACTICE/DEPARTMENT SEEN PATIENT BEFORE? 1 Yes, established patient 2 No, new patient

13. PATIENT'S COMPLAINT(S), SYMPTOM(S), OR OTHER REASON(S) FOR THIS VISIT *Use patient's own words.*
1. Most important:
2. Other:
3. Other:

14. MAJOR REASON FOR THIS VISIT *Check one.* 1 Acute problem 2 Chronic problem, routine 3 Chronic problem, flareup 4 Pre- or post-surgery/injury followup 5 Non-illness care (e.g., routine prenatal, general exam., well baby)

15. IS THIS VIST RELATED TO INJURY OR POISONING? *Refers to all types of injury or poisoning, including adverse drug experiences, medical misadventures, etc.* 1 Yes *(Answer a, b, c, and d.)* 2 No *(Skip to item 16.)*
a. Place of occurrence *Check one* 1 Residence 2 Recreation/sports area 3 Street or highway 4 School 5 Other public building 6 Industrial places 7 Other 8 Unknown
b. Is this injury intentional? 1 Yes (self-inflicted) 2 Yes (assault) 3 No, unintentional 4 Unknown
c. Is this injury work related? 1 Yes 2 No 3 Unknown
d. Cause of injury *Describe events that preceded injury (e.g. reaction to penicillin, wasp sting, driver in motor vehicle traffic accident involving collision with parked vehicle, shot with a handgun during a brawl, etc.)*

16. PHYSICIAN'S DIAGNOSES FOR THIS VISIT *As specifically as possible, list diagnoses related to this visit including chronic conditions (e.g. depression, obesity, asthma, etc.)*
1. Primary diagnosis:
2. Other:
3. Other:

17. DIAGNOSTIC/SCREENING SERVICES *Check all **ordered** or **provided** at this visit.*
1 None
EXAMINATIONS: 2 Breast 3 Pelvic 4 Rectal 5 Skin 6 Visual acuity 7 Glaucoma 8 Hearing
TESTS AND MEASUREMENTS: 9 Blood pressure 10 Strep test 11 Pap test 12 Urinalysis 13 Pregnancy test 14 PSA 15 Blood lead level 16 Cholesterol measure 17 HIV serology 18 Other STD test 19 Hematocrit/hemoglobin 20 Other blood test 21 EKG
IMAGING: 22 X-Ray 23 CAT scan/MRI 24 Mammography 25 Ultrasound
ALL OTHER: *Specify* 26

18. THERAPEUTIC AND PREVENTIVE SERVICES *Check all **ordered** or **provided** at this visit. Exclude medications.*
1 None
COUNSELING/EDUCATION: 2 Diet/nutrition 3 Exercise 4 HIV/STD transmission 5 Family planning/contraception 6 Prenatal instructions 7 Breast self-exam 8 Tobacco use/exposure 9 Growth/development 10 Mental health 11 Stress management 12 Skin cancer prevention 13 Injury prevention
OTHER THERAPY: 14 Psychotherapy 15 Psycho-pharmacotherapy 16 Physiotherapy
ALL OTHER: *Specify* 17

19. AMBULATORY SURGICAL PROCEDURES None
*List up to 2 surgical procedures actually **performed** at this visit. Include biopsy.*
1.
2.

20. MEDICATIONS/INJECTIONS *List names of up to 6 medications that were **ordered, supplied, administered** or **continued** during this visit. Include R_x and OTC medications, immunizations, allergy shots, and anesthetics.*
None
Check the box next to drug name if it is from the patient's insurance formulary list.
Check here if NO drugs are from a formulary list.
1. 2. 3. 4. 5. 6.

21. PROVIDERS SEEN THIS VISIT *Check all that apply.*
1 Physician 2 Physician assistant 3 Nurse practitioner 4 Nurse midwife 5 R.N. 6 L.P.N. 7 Medical/nursing assistant 8 Other

22. TIME SPENT WITH PHYSICIAN
If not seen by physician, enter zero.
Minutes

Figure 1. Patient Record form

1997. Physician practice, patient, and visit characteristics are described.

Methods

The data presented in this report are from the 1997 National Ambulatory Medical Care Survey. The NAMCS is a national probability sample survey conducted by the Division of Health Care Statistics of NCHS, Centers for Disease Control and Prevention. Survey dates for the NAMCS were December 30, 1996 through December 28, 1997.

The target universe of the NAMCS includes visits made in the United States 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 (AMA) and the American Osteopathic Association (AOA) as ''office-based, patient care.'' Visits to private, nonhospital-based clinics and HMO's were within the scope of the survey, but those that took place in federally operated facilities and hospital-based outpatient departments were not. Telephone contacts and visits made outside the physician's office were also excluded.

The NAMCS utilizes a multistage probability sample design involving samples of primary sampling units (PSU's), physician practices within PSU's, and patient visits within physician practices. 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. A sample of 2,498

physicians was selected from the master files of AMA and AOA, and 1,801 were in scope or eligible to participate in the survey. Sample physicians were asked to complete Patient Record forms (PRF's) for a systematic random sample of office visits occurring during a randomly assigned 1-week reporting period (figure 1). The physician response rate was 69.2 percent, and a total of 24,715 Patient Record forms were submitted.

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 include an explanation of the sampling errors and guidelines for judging the precision of the estimates.

Several medical classification systems were used to code data from the NAMCS. Each Patient Record form contains an item on the patient's expressed reason for the visit. In this item the respondent was asked to record the patient's ''complaint(s), symptom(s), or other reason(s) for this visit in the patient's (or patient surrogate's) own words.'' Up to three reasons for visit were coded according to *A Reason for Visit Classification for Ambulatory Care* (RVC) (4).

The Patient Record form contains an item on the cause of injury for injury-related visits. Up to three external causes of injury were coded according to the ''Supplementary Classification of External Causes of Injury and Poisoning'' found in the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD–9–CM) (5).

In addition, the form contains an item on diagnosis. The physician was asked to record the primary 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 were coded according to the ICD–9–CM (5).

The Patient Record form includes items on ambulatory surgical procedures and diagnostic/screening services. Physicians were asked to record up to two procedures in the first item and to write in up to two services in the open-ended ''other'' categories in the second item. These procedures and services were coded according to the ICD–9–CM, volume 3 (5).

For the medication item, respondents 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. Up to six medications, referred to in this survey as drug mentions, were coded per visit according to a classification system developed at NCHS. A report describing the method and instruments used to collect and process drug information is available (6). Therapeutic classification of the drugs mentioned on the Patient Record forms was determined using the *National Drug Code Directory*, 1995 edition (7).

The 1997 NAMCS included several new items: Pregnancy status of patient, whether authorization was required for care, whether visit was to patient's primary care physician, HMO status of patient, whether visit was capitated, and major reason for visit. Data for these items are provided throughout the report. The major reason for visit item differs from the principal reason for visit item in that it presents the physician's perspective of the major reason the patient sought medical care as categorized by acute, chronic, follow-up, or routine examination. The principal reason for visit, as classified by the RVC, is from the patient's perspective and is expressed in the patient's or patient's surrogate's own words. It includes the patient's complaint for symptom-related visits. Each item provides a unique dimension into the nature of the medical encounter.

Item nonresponse rates in the NAMCS are generally low (5 percent or less). However, levels of nonresponse can vary considerably in the survey, with one item in 1997 having a nonresponse rate above 50 percent. Most nonresponse occurs when the needed information is not available in the medical record and/or is unknown to the person filling out the survey instrument. Nonresponse can also result when the information is available, but survey procedures are not followed and the item is left blank. For the purposes of this report, the tables include a combined entry of unknown/blank to display missing data. For items where combined item nonresponse is between 30 and 50 percent, the percent distribution is not described in the text but is presented in the tables. These data should be interpreted with caution. If nonresponse is random, the observed distribution for the reported item would be close to the true distribution. However, if nonresponse is not random, the observed distribution could vary significantly from the actual distribution. Researchers need to decide how best to treat items with high levels of missing responses. The data are not presented in tabular form for items with nonresponse greater than 50 percent. The Technical notes provide nonresponse rates for items with more than 5 percent missing data.

The U.S. Bureau of the Census, Housing Surveys Branch, was responsible for data collection. Data processing operations and medical coding were performed by Analytic Sciences, Inc., Durham, North Carolina. As part of the quality assurance procedure, a 10-percent quality control sample of survey records was independently processed. Coding error rates ranged between 0.0 and 1.7 percent for various survey items.

Several of the tables in this report present data on rates of physician office visits. The population figures used in calculating these rates are U.S. Bureau of the Census estimates of the civilian, noninstitutionalized population of the United States as of July 1, 1997, and have been adjusted for net underenumeration. The population figures have been published (3).

Results

There were an estimated 787.4 million visits to office-based physicians in 1997, a rate of 3.0 visits per person. This rate did not differ significantly from the visit rate in 1996. Annual visit rates have ranged between 2.6 and 3.0 visits per person between 1975 and 1997 (8–16). Selected characteristics of the encounter pertaining to the physician's practice, the patient, and the visit are described in the following text.

Table 1. Number, percent distribution, and annual rate of office visits by selected physician practice characteristics: United States, 1997

Physician practice characteristic	Number of visits in thousands	Percent distribution	Number of visits per 100 persons per year [1,2]
All visits	787,372	100.0	295.2
Physician specialty			
General and family practice	200,429	25.5	75.1
Internal medicine	121,089	15.4	45.4
Pediatrics	91,847	11.7	34.4
Obstetrics and gynecology	71,109	9.0	[3]26.7
Ophthalmology	45,934	5.8	17.2
Orthopedic surgery	34,439	4.4	12.9
Dermatology	28,728	3.6	10.8
Psychiatry	25,712	3.3	9.6
General surgery	21,353	2.7	8.0
Otolaryngology	20,496	2.6	7.7
Cardiovascular diseases	17,262	2.2	6.5
Urology	16,889	2.1	6.3
Neurology	7,830	1.0	2.9
All other specialties	84,256	10.7	31.6
Professional identity			
Doctor of medicine	729,169	92.6	273.4
Doctor of osteopathy	58,203	7.4	21.8
Geographic region			
Northeast	172,777	21.9	329.5
Midwest	177,840	22.6	270.6
South	270,728	34.4	284.4
West	166,026	21.1	311.5
Metropolitan status			
MSA[4]	657,372	83.5	309.4
Non-MSA[4]	130,000	16.5	240.2

[1]Based on U.S. Bureau of the Census monthly postcensal estimates of the civilian noninstitutionalized population of the United States as of July 1, 1997. Figures are consistent with an unpublished hard-copy national population estimates release package PPL-91 (U.S. Population Estimates by Age, Sex, Race, and Hispanic Origin: 1990–97) and have been adjusted for net underenumeration using the 1990 National Population Adjustment Matrix.
[2]Regional and metropolitan estimates have been provided by the Division of Health Interview Statistics (DHIS), NCHS, and are based on U.S. Bureau of the Census estimates of the civilian noninstitutionalized population of the United States as of July 1, 1997.
[3]The visit rate is 52.1 per 100 females.
[4]MSA is metropolitan statistical area.
NOTE: Numbers may not add to totals because of rounding.

Physician practice 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 (25.5 percent). Visit rates to each of the 13 physician specialty groups were not found to differ significantly from 1996 visit rates.

Doctors of osteopathy received 58.2 million visits during 1997, or 7.4 percent of all office visits. Visits to this specialty occurred at a rate of 21.8 per 100 persons. While this figure is significantly higher than the 1996 rate (16.7 visits per 100), the increase is likely due to changes in the sampling of osteopathy visits for 1997. It had been suspected that the 1996 NAMCS underestimated the number of osteopathy visits. In 1997 a new sampling frame was used for sampling and for post-sampling adjustments. With these improvements, significant changes were seen in the resulting estimates.

Visits according to geographic characteristics of the physician's practice are also displayed in table 1. In 1997 there were 329.5 visits per 100 persons per year in the Northeast; in the Midwest, there were 270.6 visits per 100 persons per year. The visit rate for the West decreased from 332.2 visits per 100 persons per year in 1996 to 311.5 visits per 100 persons per year in 1997. However, there were no significant differences between the regions or between metropolitan and nonmetropolitan areas in 1997.

Additional information on the physician's practice has been collected annually in NAMCS by means of the Physician Induction Interview form (PII). The PII is used to obtain basic information on the practice, establish the visit sampling rate, and record the final disposition of the interview. PII data have not been published in previous years. However, for 1997 selected items on the physician and physician practice, including employment status, ownership, practice size, office type, and laboratory testing, were edited and weighted to produce national estimates of office visits by these characteristics. In cases where the physician saw patients in multiple offices, the practice characteristics for the visits to each office are presented. These data are displayed in table 2.

One-tenth of the visits to primary care specialties were to physician practices that were owned by a hospital. This was significantly higher than the corresponding percent for the visits to surgical and nonsurgical specialties. Approximately three-quarters (77.1 percent) of the visits made to surgical specialties in 1997 were to practices owned by the physician, compared to three-fifths (63.0 percent) of the visits made to primary care specialties. The majority of office visits (61.3 percent) were made to physicians engaged in group practice. About two-fifths of the visits were to solo practitioners.

Patient characteristics

Office visits by patient's age, sex, and race are shown in table 3. Females made 59.9 percent of all office visits during 1997. The percent of visits made by females as well as the visit rate when compared with males were higher in all age categories except the youngest (under 15 years) and the two oldest groups (65–74 and 75 years and over). This pattern was also observed in the 1990–96 National Ambulatory Medical Care Surveys.

Table 2. Number and percent distribution of office visits by selected physician practice characteristics, according to physician specialty group: United States, 1997

Physician practice characteristic	Physician specialty group				Physician specialty group			
	All specialties	Primary care	Surgical	Nonsurgical	All specialties	Primary care	Surgical	Nonsurgical
	Number of visits in thousands				Percent distribution			
All visits	787,372	482,168	158,865	146,339	100.0	100.0	100.0	100.0
Employment status								
Owner	522,342	303,584	122,443	96,316	66.3	63.0	77.1	65.8
Employee	168,134	118,110	18,966	31,058	21.4	24.5	11.9	21.2
Contractor	44,871	29,790	6,908	8,174	5.7	6.2	4.3	5.6
Blank	52,025	30,685	10,548	10,792	6.6	6.4	6.6	7.4
Ownership								
Physician/group	584,822	336,017	137,923	110,882	74.3	69.7	86.8	75.8
Hospital	59,998	49,697	5,757	4,545	7.6	10.3	3.6	3.1
Healthcare corporation	56,057	45,812	3,034	7,210	7.1	9.5	1.9	4.9
HMO[1]	18,564	13,239	2,221	3,104	2.4	2.7	1.4	2.1
Other[2]	15,048	1,195	2,418	11,435	1.9	0.2	1.5	7.8
Blank	42,131	36,208	7,510	9,165	5.4	7.5	4.7	6.3
Practice size								
Solo	304,985	169,288	67,917	67,780	38.7	35.1	42.8	46.3
2–4 physicians	257,704	155,895	54,579	47,230	32.7	32.3	34.4	32.3
5–9 physicians	148,857	108,818	25,518	14,521	18.9	22.6	16.1	9.9
10–49 physicians	52,406	34,002	9,540	8,864	6.7	7.1	6.0	6.1
50 or more physicians	23,420	14,164	1,311	7,945	3.0	2.9	0.8	5.4
Office type								
Private practice	679,783	410,116	145,442	124,225	86.3	85.1	91.6	84.9
Clinic/urgicenter	49,373	32,931	5,689	10,753	6.3	6.8	3.6	7.3
Private clinic	27,990	18,870	5,376	3,744	3.6	3.9	3.4	2.6
Neighborhood mental health center	10,457	9,059	–	1,397	1.3	1.9	–	1.0
Local government clinic	3,617	3,382	*	*	0.5	0.7	*	*
HMO[1]	16,152	7,809	2,339	6,004	2.1	1.6	1.5	4.1
Lab testing in office								
Yes	395,485	325,335	21,058	49,091	50.2	67.5	13.3	33.5
No	377,149	146,212	136,358	94,580	47.9	30.3	85.8	64.6
Blank	14,738	10,620	1,449	2,669	1.9	2.2	0.9	1.8

– Quantity zero.
* Figure does not meet standards of reliability or precision.
[1]HMO is health maintenance organization.
[2]Other includes owners such as local government (State, county, or city) and charitable organizations.

NOTES: Definitions for each specialty group are in the Technical notes. Numbers may not add to totals because of rounding.

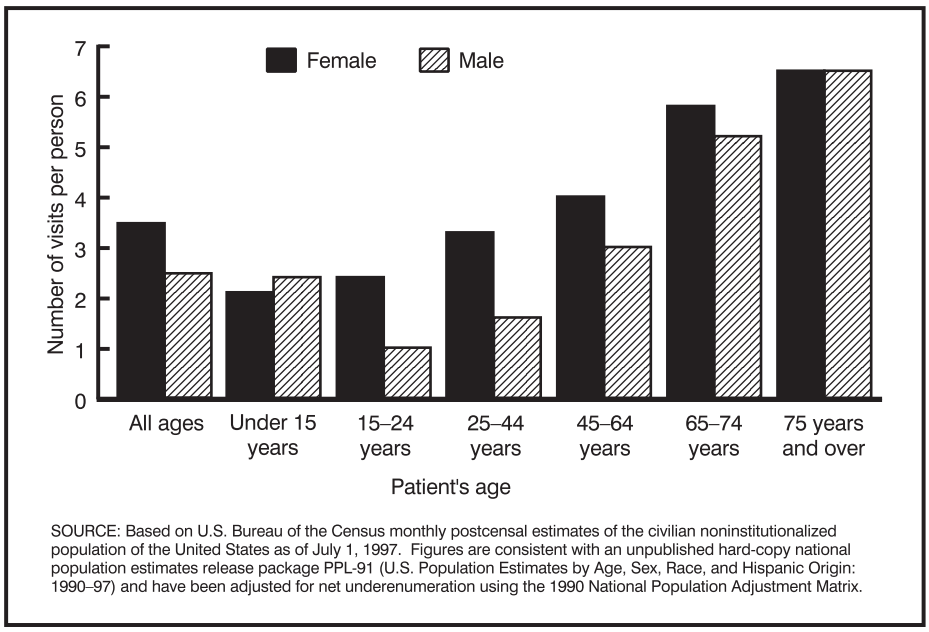
Visit rates were found to increase with age after the age of 24. Persons aged 75 years and over had the highest visit rate of the six age categories analyzed, at 6.5 visits per person. For both males and females, the visit rate increased with each successive age group after age 24.

White persons made 86.5 percent of all office visits, with black persons and Asians and Pacific Islanders accounting for 9.9 percent and 3.2 percent, respectively. American Indians, Eskimos, and Aleuts accounted for 0.4 percent of the visits. The office visit rate for the white population (3.1 visits per person) was significantly higher than the rate for the black population (2.3 visits per person) in 1997. This difference was mainly the result of a higher visit rate for white children under 15 years compared with black children of the same age. No other differences were found in visit rates by race and age. Historically, visit rates for black persons to physician offices tend to be lower than those for white persons, but visit rates to hospital settings tend to be higher for black persons compared with white persons (3).

''Is patient pregnant?'' is a new item on the 1997–98 NAMCS PRF. Results are discussed in terms of women of childbearing age (15–44 years). For 15.4 percent of these visits, pregnancy status was unknown. At another 67.2 percent of the visits, the patient was not pregnant. The remainder, 17.4 percent of visits, were made by women who were pregnant (data not shown).

Visit characteristics

Referral status and prior-visit status—Table 4 shows data on office



SOURCE: Based on U.S. Bureau of the Census monthly postcensal estimates of the civilian noninstitutionalized population of the United States as of July 1, 1997. Figures are consistent with an unpublished hard-copy national population estimates release package PPL-91 (U.S. Population Estimates by Age, Sex, Race, and Hispanic Origin: 1990–97) and have been adjusted for net underenumeration using the 1990 National Population Adjustment Matrix.

Figure 2. Annual rate of visits to office-based physicians by patient's age and sex: United States, 1997

visits categorized by patient's referral status and prior-visit status. Overall, eighty-six percent of the office visits were made by patients who had seen the physician on a previous occasion. Thirteen percent of visits were made by new patients.

As expected, the percent of referred visits reported by primary care specialties was relatively low, 5 percent or less of the visits to general and family practitioners, internists, and pediatricians. In contrast, 4 of 10 visits to neurologists (41.5 percent) were reported to be referrals (table 5).

Impact of managed care—In 1997 a series of new items was added to the PRF to measure the impact of managed care on the health care delivery system. These items collected data on whether authorization was required for the visit, whether the visit was made to the patient's primary care physician, whether the patient belonged to an HMO, and whether the visit was capitated.

Table 6 and figure 3 show data for these new items. For 8 of 10 office visits, authorization was not required to see the physician, and about one-tenth of all visits were capitated. About one-half of all office visits were to the patient's primary care physician. Analyzing visits to primary care specialties (as defined in table III of the Technical notes) separately, three-quarters were made to the patient's primary care physician. Interestingly, about 20 percent of the visits to nonprimary care specialties were reportedly made to the patient's primary care physician.

The 1997 NAMCS included a new item to indicate whether the patient belonged to an HMO or not. HMO is defined as a health care delivery system that offers comprehensive health services provided by an established panel or network of providers to a voluntary enrolled population for a prepaid fixed fee and whose members are required to utilize services within the panel of contracted providers. This item permits the estimation of the volume of visits by patients who are members of an HMO. As shown in table 7, more than one-quarter of all visits were made by patients who belonged to an HMO.

Primary expected source of payment—The expected source of payment item was revised for the 1997–98 NAMCS PRF. The new item is concerned only with the primary expected source of payment for the office visit. In previous years respondents were asked to report all applicable sources. Data for this item are shown in table 7 and figure 4. Private insurance was cited most frequently (53.1 percent of visits). The distribution of expected pay sources in 1997 did not differ significantly from corresponding 1996 figures.

Patient's principal reason for visit—The principal reason for visit is the problem, complaint, or reason listed in item 13a on the Patient Record form. As described earlier, up to three reasons for visit were coded according to the RVC (4), which is divided into the eight modules or groups of reasons displayed in table 8. More than one-half of all visits were made for reasons classified as symptoms (54.2 percent). Respiratory symptoms accounted for 10.8 percent of all visits, and musculoskeletal symptoms accounted for 10.0 percent.

The 20 most frequently mentioned principal reasons for visit, representing 42.8 percent of all visits, are shown in table 9. General medical examination was the most frequently mentioned reason for visit (7.6 percent of the total), while cough was the most frequently mentioned reason having to do with illness or injury (3.3 percent). Eighteen of the top 20 reasons for office visits in 1997 were also listed among the 20 most frequently mentioned reasons in 1996, albeit in different order. It should be noted that estimates that differ in ranked order may not be significantly different from each other.

Major reason for this visit—The intent of this new item on the 1997–98 NAMCS PRF was to provide a better picture of the general nature of the office visit—whether for an acute problem; routine chronic problem; flare-up of a chronic problem; pre- or postsurgery visit or injury follow-up; or for nonillness care, including routine medical examinations. This item differs from the principal reason for visit (item 13a) in that it presents the physician's perspective of the major reason the patient sought care rather than the patient's reason. Results from this item are displayed in table 10. More than one-third (35.4 percent) of the visits were for an acute problem. But, among visits by persons under age 15, more than one-half (54.0 percent) were for acute problems. In general, more than one-quarter (27.3 percent) of all visits

Table 3. Number, percent distribution, and annual rate of office visits by patient's age, sex, and race: United States, 1997

Patient's age, sex, and race	Number of visits in thousands	Percent distribution	Number of visits per person per year[1]
All visits	787,372	100.0	3.0
Age			
Under 15 years	137,361	17.4	2.3
15–24 years	62,488	7.9	1.7
25–44 years	203,701	25.9	2.4
45–64 years	192,753	24.5	3.5
65–74 years	99,714	12.7	5.5
75 years and over	91,355	11.6	6.5
Sex and age			
Female	471,481	59.9	3.5
Under 15 years	63,042	8.0	2.2
15–24 years	43,041	5.5	2.4
25–44 years	137,486	17.5	3.3
45–64 years	113,756	14.4	4.0
65–74 years	57,918	7.4	5.8
75 years and over	56,237	7.1	6.5
Male	315,891	40.1	2.4
Under 15 years	74,319	9.4	2.4
15–24 years	19,446	2.5	1.0
25–44 years	66,215	8.4	1.6
45–64 years	78,997	10.0	3.0
65–74 years	41,797	5.3	5.2
75 years and over	35,118	4.5	6.5
Race and age			
White	681,085	86.5	3.1
Under 15 years	118,421	15.0	2.5
15–24 years	52,137	6.6	1.8
25–44 years	172,898	22.0	2.5
45–64 years	167,957	21.3	3.6
65–74 years	87,241	11.1	5.5
75 years and over	82,431	10.5	6.5
Black	78,106	9.9	2.3
Under 15 years	14,478	1.8	1.5
15–24 years	7,635	1.0	1.4
25–44 years	21,137	2.7	2.0
45–64 years	19,097	2.4	3.3
65–74 years	9,331	1.2	5.8
75 years and over	6,427	0.8	6.1
All other races			
Asian, Pacific Islander	25,015	3.2	2.5
American Indian, Eskimo, Aleut	3,165	0.4	1.3

[1]Based on U.S. Bureau of the Census monthly postcensal estimates of the civilian noninstitutionalized population of the United States as of July 1, 1997. Figures are consistent with an unpublished hard-copy national population estimates release package PPL-91 (U.S. Population Estimates by Age, Sex, Race, and Hispanic Origin: 1990–97) and have been adjusted for net underenumeration using the 1990 National Population Adjustment Matrix.

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

were for a routine chronic problem. This percent rose to 40 percent of the visits for persons 75 years and over. About one-sixth (18.1 percent) of all visits were for nonillness care. Females had a higher proportion of visits for nonillness care compared to males. This reflects the fact that nonillness care includes prenatal examinations.

Injury-related visits—Data on injury-related visits are presented in terms of patient's age, sex, and race in table 11. Visits were considered to be injury related if ''yes'' was checked in response to question 15 of the Patient Record form, or if an injury reason for visit or injury diagnosis was recorded, or if a cause of injury was specified. Using the results from any one of those items alone would underestimate the number of injury-related visits. Each of these items measures a unique aspect of injury. Employing this definition, the number of injury-related visits was 24 percent greater compared with using the injury check box alone.

There were an estimated 81.7 million injury-related office visits in 1997, representing 10.4 percent of all visits and yielding a rate of 30.6 visits per 100 persons. Corresponding figures for 1996 were 87.6 million and 11.9 percent of visits, respectively. One-third (32.8 percent) of the injury visits were made by persons 25–44 years of age, and one-half of the total (50.2 percent) were made by females. The injury visit rate for females was not significantly higher than the rate for males in 1997 (30.0 visits per 100 females compared with 31.2 visits per 100 males). For persons under 15 years of age, males had a higher injury visit rate than females. But for persons 65–74 years of age, females had a higher injury visit rate than males (figure 5). Among females the injury visit rate for persons 75 years of age and over was significantly higher than the visit rate for all other age groups except for those 65–74 years of age. Among males the injury visit rate for those 25–44 years of age and 45–64 years of age was significantly higher than for those aged under 15. No other statistically significant differences were noted by age for males.

The injury visit rate for white persons was 32.1 visits per 100 persons in 1997, significantly higher than the injury visit rate of 20.5 per 100 black persons. Visit rates were not significantly different between white males (32.9 per 100 persons) and white females (31.3 per 100 persons) or between black males (20.9 per 100) and black females (20.1 per 100) (data not shown). The injury visit rate for black persons was significantly lower in 1997 compared with that for 1996 (20.5 per 100 in 1997 versus 33.7 per 100 in 1996). This decrease results in figures very similar to those in 1995, possibly indicating an anomaly in the 1996 data.

Item 15 on the PRF was expanded in 1997–98 to capture data on the intentionality of the injury, in addition to preexisting subitems on place of occurrence and whether the injury was work related. Unfortunately, these items all had high levels of missing data (28.0 percent, 50.7 percent, and

Table 4. Number and percent distribution of office visits by patient's referral status, according to prior-visit status: United States, 1997

Referral status	Prior-visit status			
	All visits	New patient	Old patient	Blank
	Number of visits in thousands			
All visits	787,372	99,321	678,699	9,352
Referred by another physician or health plan for this visit	118,784	41,474	76,357	953
Not referred by another physician or health plan for this visit	634,986	52,785	577,697	4,503
Unknown/blank	33,602	5,061	24,645	3,896
	Percent distribution			
All visits	100.0	100.0	100.0	100.0
Referred by another physician or health plan for this visit	15.1	41.8	11.3	10.2
Not referred by another physician or health plan for this visit	80.6	53.1	85.1	48.2
Unknown/blank	4.3	5.1	3.6	41.7

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

Table 5. Number and percent distribution of office visits by physician specialty, according to referral status and prior-visit status: United States, 1997

Physician specialty	Number of visits in thousands[1]	Total	Referred by another physian or health plan for this visit		Not referred by another physician or health plan for this visit		Unknown/blank referral for this visit	
			New patient	Old patient	New patient	Old patient	New patient	Old patient
All visits	778,019	100.0	5.3	9.8	6.8	74.3	0.6	3.2
General and family practice	197,777	100.0	1.1	2.2	7.7	86.1	*	2.3
Internal medicine	118,904	100.0	2.1	2.5	7.0	83.8	*	3.9
Pediatrics	90,938	100.0	1.6	3.0	4.4	88.7	*	0.3
Obstetrics and gynecology	70,519	100.0	4.0	16.1	5.1	67.1	*	6.6
Ophthalmology	45,411	100.0	6.8	12.5	8.7	68.2	*	0.7
Orthopedic surgery	34,024	100.0	14.5	24.2	7.9	46.1	*	6.3
Dermatology	28,617	100.0	10.5	7.6	10.2	65.4	2.4	3.9
Psychiatry	25,562	100.0	4.0	22.5	3.6	63.1	*	6.6
General surgery	20,764	100.0	14.3	26.2	6.0	51.1	*	*
Otolaryngology	20,274	100.0	16.2	18.2	10.4	51.8	*	2.5
Cardiovascular diseases	17,042	100.0	8.9	22.8	3.8	63.4	*	*
Urology	16,666	100.0	15.6	15.8	5.0	61.4	*	*
Neurology	7,802	100.0	21.3	20.2	5.0	52.7	*	*
All other specialties	83,721	100.0	10.0	18.9	7.1	62.1	*	1.5

* Figure does not meet standard of reliability or precision.
[1]Nonresponses for prior-visit status have been removed from the total, accounting for 9.4 million visits or 1.2 percent, overall.
NOTE: Numbers may not add to totals because of rounding.

41.2 percent, respectively). The available data for intentionality indicated that about 70 percent of the injury visits were due to unintentional injuries. More complete reporting could change the distribution.

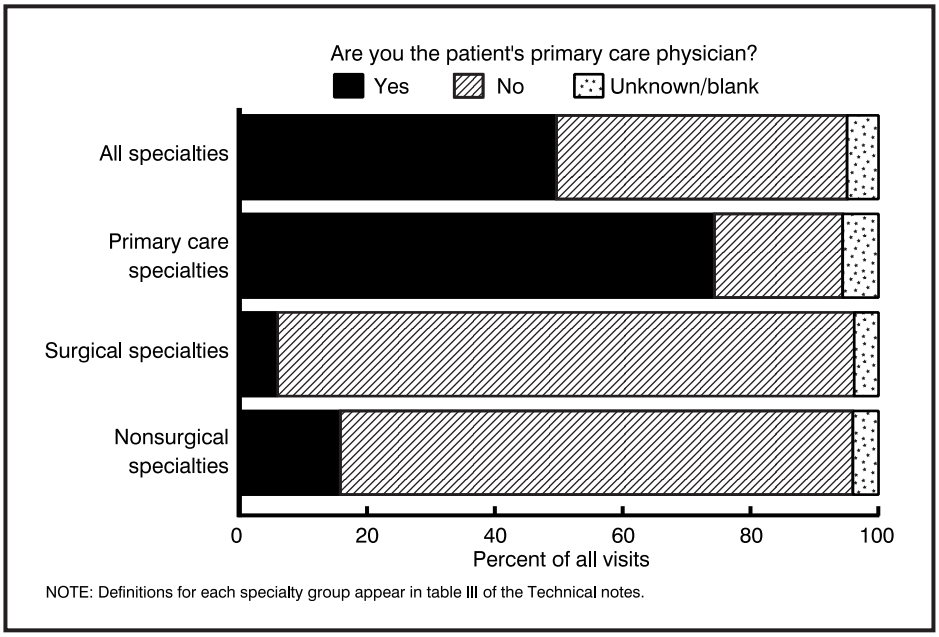
Table 13 shows NAMCS visits by the intent and mechanism of the first-listed external cause of injury as categorized by the ICD–9–CM groupings detailed in the Technical notes. Two-thirds of the injury visits were due to unintentional injuries (68.8 percent). Falls were cited most often, accounting for 14.1 percent of all injury visits. Cause of injury was not recorded for one-quarter of the injury visits (23.3 percent). The reader should keep in mind that the results regarding intentionality of the injury in table 13 will vary from those in table 12. In table 12 intentionality of the injury is based on responses to the checkbox item on the Patient Record form, rather than on the ICD–9–CM groupings used in table 13. Discrepancies may arise in respondent interpretation of intent; for example, in some cases, hospital staff checked the ''assault'' category for dog bite injuries. However, dog bites are an unintentional injury based on the ICD–9–CM E-codes.

Primary diagnosis—Item 16 of the Patient Record form asks the physician to record the primary diagnosis or problem associated with the patient's most important reason for the current visit as well as any other significant current diagnoses. Displayed in table 14 are office visits by primary diagnosis using the major disease categories specified by the ICD–9–CM (5). The

Table 6. Number, and percent distribution of office visits by authorization required, primary care physician, and capitated visit: United States, 1997

Visit characteristic	Number of visits in thousands	Percent distribution
All visits	787,372	100.0
Was authorization required for care?		
Yes	78,962	10.0
No	642,239	81.6
Unknown/blank	66,171	8.4
Are you the patient's primary care physician?		
Yes	390,851	49.6
No	357,865	45.5
Unknown/blank	38,656	4.9
Is this a capitated visit?		
Yes	88,740	11.3
No	589,766	74.9
Unknown/blank	108,866	13.9

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



NOTE: Definitions for each specialty group appear in table III of the Technical notes.

Figure 3. Percent distribution of office visits by whether the provider was the patient's primary care physician, according to physician specialty group: United States, 1997

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 16.4 percent of all office visits. Diseases of the respiratory system (12.1 percent) and diseases of the nervous system and sense organs (9.9 percent) were also prominent on the list.

A selection of the most frequently reported primary diagnoses for 1997 are featured in table 15. The categories shown in this table are based on the ICD–9–CM. The diagnosis groupings in table 15 accounted for 41.7 percent of all NAMCS visits during the year. The three most frequent illness diagnoses were acute upper respiratory infections, essential hypertension, and arthropathies and related disorders (e.g. osteoarthrosis).

Diagnostic and screening services—For the 1997–98 NAMCS PRF, item 17 was expanded to include additional check boxes for examinations, tests and measurements, and imagings. More complete reporting was observed with this format compared with the open-ended response format used in previous years. For example, the estimate for pap test increased by 202 percent between 1996 (open response) and 1997 (check box). Physicians were asked to check all services that were ordered or provided.

The most frequently cited examinations at office visits were skin (8.6 percent of visits), pelvic (7.5 percent), and visual acuity (7.5 percent). Blood pressure (45.8 percent) and urinalysis (11.0 percent) were the leading tests. Imaging was most often in the form of an x ray and was mentioned at 6.5 percent of the visits. More than one-quarter of the visits had no diagnostic or screening services ordered or provided (table 16).

Therapeutic and preventive services—Data on therapeutic and preventive services ordered or provided at office visits (except for medication therapy which was reported separately) were collected in item 18 of the Patient Record form. As shown in table 17, these services were recorded at more than one-third (38.4 percent) of all office visits during 1997. Counseling or education related to diet (15.4 percent), exercise (10.2 percent), prenatal instructions (2.1 percent), and breast self-examination (2.1 percent) were mentioned most frequently. Physiotherapy, psychotherapy, and psycho-pharmacotherapy accounted for 3.2, 2.4, and 2.1 percent of office visits, respectively.

Procedures—In item 19 physicians were instructed to record up to two ambulatory surgical procedures performed at this visit. Item 17, ''Diagnostic and screening services'' and item 18, ''Therapeutic and preventive services,'' both included two open-ended ''other'' categories in addition to the check box categories. After analyzing the data from these categories and from the ambulatory surgery data reported in question 19, it was discovered that in many instances the same procedure was being recorded in different places. Table 18 presents data from question 19 and the open-ended responses to

Table 7. Number and percent distribution of office visits by primary expected source of payment and health maintenance organization status: United States, 1997

Visit characteristic	Number of visits in thousands	Percent distribution
All visits	787,372	100.0
Primary expected source of payment		
Private insurance	417,744	53.1
Medicare	163,263	20.7
Medicaid	64,047	8.1
Self-pay	60,869	7.7
Worker's compensation	15,595	2.0
No charge	8,225	1.0
Other	41,000	5.2
Unknown/blank	16,629	2.1
HMO status[1]		
Yes	220,478	28.0
No	488,291	62.0
Unknown/blank	78,602	10.0

[1]HMO is health maintenance organization.

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

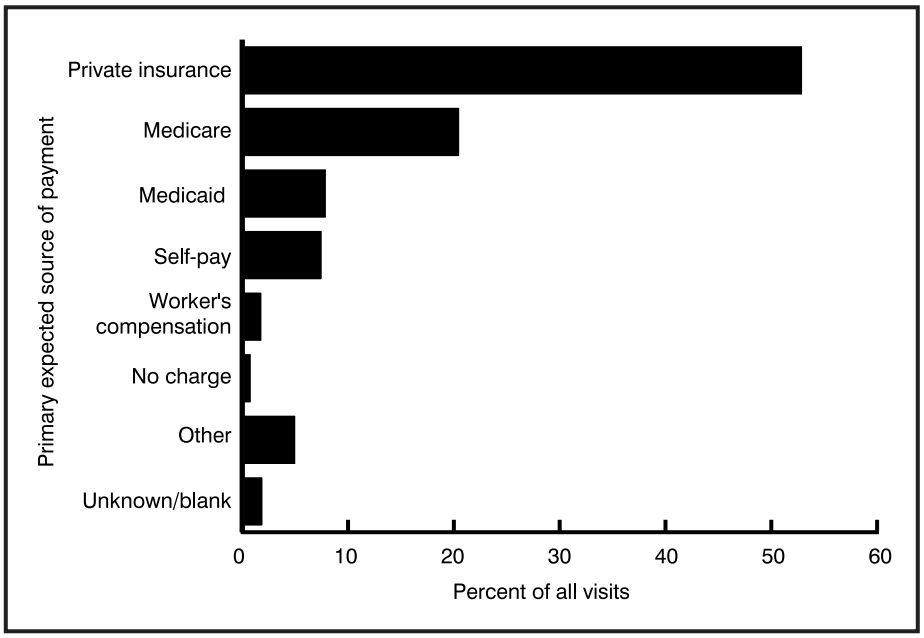


Figure 4. Percent distribution of office visits by primary expected source of payment: United States, 1997

questions 17 and 18 as coded to volume 3 of the ICD–9–CM (5). ''Other nonoperative measurements and examinations'' was most frequently mentioned, accounting for 4.1 percent of all office-based visits. ''Other local excision or destruction of lesion or tissue of skin and subcutaneous tissue'' was the most frequently mentioned invasive procedure, reported at 1.6 percent of the visits.

Medication therapy—Visits with one or more drugs listed on the Patient Record form are termed ''drug visits'' in the NAMCS. Up to six medications, called drug mentions, were coded per drug visit. As used in the NAMCS, the term ''drug'' is interchangeable with the term ''medication'' and the term ''prescribing'' is used broadly to mean ordering or providing any medication, whether prescription or over-the-counter. Data on medication therapy are shown in tables 19–23. Medication therapy was the most commonly mentioned therapeutic service in 1997, reported at 498.9 million office visits or 63.4 percent of the total (table 19).

There were about 1.0 billion drugs mentioned at visits to office-based physicians during 1997. This yields an average of 1.3 drug mentions per office visit or 2.1 drug mentions per drug visit. Data on number of drug visits and drug mentions by physician specialty are shown in table 20. The percent of drug visits ranged from 83.0 percent for cardiologists to 33.0 percent for orthopedic surgeons.

Drug mentions are displayed by therapeutic class in table 21. This classification is based on the therapeutic categories used in the *National Drug Code Directory*, 1995 edition (NDC) (7). It should be noted that some drugs have more than one therapeutic application. In cases of this type, the drug was classified under its primary therapeutic use. Cardiovascular-renal drugs (14.7 percent), antimicrobial agents (11.9 percent), and drugs used for pain relief (11.1 percent) were listed most frequently.

The 20 most frequently used generic substances in 1997 are shown in table 22. 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 the count for acetaminophen and the count for codeine. Acetaminophen and amoxicillin were the two generic substances most frequently used in drugs ordered or provided by the physician at office visits in 1997, occurring in 3.7 percent and 3.0 percent of drug mentions, respectively.

Table 23 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 accounted for 18.6 million mentions (1.6 percent of the total) and was followed by Lasix, Tylenol, Claritin, and Synthroid. All of these were among the top 10 drug entry names mentioned in 1996.

Providers seen—Item 21 of the PRF asks the physician to record all

Table 8. Number and percent distribution of office visits by patient's principal reason for visit: United States, 1997

Principal reason for visit and RVC code[1]		Number of visits in thousands	Percent distribution
All visits		787,372	100.0
Symptom module	S001–S999	421,825	54.2
General symptoms	S001–S099	52,375	6.7
Symptoms referable to psychological/mental disorders	S100–S199	25,735	3.3
Symptoms referable to the nervous system (excluding sense organs)	S200–S259	21,009	2.7
Symptoms referable to the cardiovascular/lymphatic system	S260–S299	4,068	0.5
Symptoms referable to the eyes and ears	S300–S399	49,038	6.2
Symptoms referable to the respiratory system	S400–S499	85,021	10.8
Symptoms referable to the digestive system	S500–S639	32,183	4.1
Symptoms referable to the genitourinary system	S640–S829	32,134	4.1
Symptoms referable to the skin, hair, and nails	S830–S899	41,179	5.2
Symptoms referable to the musculoskeletal system	S900–S999	79,082	10.0
Disease module	D001–D999	76,722	9.9
Diagnostic, screening, and preventive module	X100–X599	141,274	18.1
Treatment module	T100–T899	85,925	11.0
Injuries and adverse effects module	J001–J999	22,774	2.9
Test results module	R100–R700	13,312	1.7
Administrative module	A100–A140	7,433	1.0
Other[2]		18,106	2.3

[1]Based on *A Reason for Visit Classification for Ambulatory Care (RVC)* (4).
[2]Includes problems and complaints not elsewhere classified, entries of "none," blanks, and illegible entries.
NOTE: Numbers may not add to totals because of rounding.

Table 9. 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, 1997

Principal reason for visit and RVC code[1]		Number of visits in thousands	Patient's sex		
			Total	Female[2]	Male[3]
			Percent distribution		
All visits		787,372	100	100	100
General medical examination	X100	59,796	7.6	8.0	7.0
Progress visit, not otherwise specified	T800	28,583	3.6	3.2	4.2
Cough	S440	25,735	3.3	2.8	4.0
Routine prenatal examination	X205	22,979	2.9	4.9	. . .
Postoperative visit	T205	18,861	2.4	2.5	2.2
Symptoms referable to throat	S455	17,151	2.2	1.9	2.6
Well baby examination	X105	15,526	2.0	1.6	2.5
Vision dysfunctions	S305	13,443	1.7	1.7	1.6
Earache or ear infection	S355	13,359	1.7	1.5	1.9
Back symptoms	S905	12,863	1.6	1.5	1.9
Knee symptoms	S925	12,392	1.6	1.4	1.8
Fever	S010	12,374	1.6	1.1	2.2
Skin rash	S860	12,316	1.6	1.4	1.9
Stomach pain, cramps, and spasms	S545	12,078	1.5	1.7	1.2
Hypertension	D510	10,875	1.4	1.3	1.4
Nasal congestion	S400	10,564	1.3	1.3	1.4
Depression	S110	10,488	1.3	1.5	1.1
Headache, pain in head	S210	9,589	1.2	1.3	1.0
Medication, other and unspecified kinds	T115	9,056	1.2	1.1	1.2
Head cold, upper respiratory infection (coryza)	S445	8,965	1.1	1.2	1.1
All other reasons		450,380	57.2	56.9	57.7

. . . Category not applicable.
[1]Based on *A Reason for Visit Classification for Ambulatory Care* (RVC) (4).
[2]Based on 471,481,000 visits made by females.
[3]Based on 315,891,000 visits made by males.
NOTE: Numbers may not add to totals because of rounding.

providers seen during the sampled visit. Table 24 details the providers seen by physician specialty. Overall, 96.8 percent of visits were attended by a physician. Medical assistants were seen at one-fifth (22.1 percent) of office visits.

Time spent with physician—Data on the duration of office visits are presented in table 25. 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

Table 10. Number and percent distribution of office visits by major reason for this visit, according to patient's age, sex, and race: United States, 1997

Patient characteristic	Major reason for this visit						
	Total	Acute problem	Chronic problem, routine	Chronic problem, flareup	Pre- or post-surgery/ injury followup	Nonillness care	Blank/ unknown
	Number of visits in thousands						
All visits	787,372	278,907	213,954	70,623	65,017	142,738	16,133
Age							
Under 15 years	137,361	74,108	14,090	5,131	5,623	35,946	2,463
15–24 years	62,488	25,147	10,503	4,436	4,433	16,858	1,111
25–44 years	203,701	72,288	46,089	18,347	16,713	45,668	4,596
45–64 years	192,753	56,374	67,827	22,324	17,519	24,681	4,028
65–74 years	99,714	26,479	39,368	10,491	10,207	11,145	2,025
75 years and over	91,355	24,511	36,077	9,895	10,522	8,440	1,910
Sex							
Female	471,481	157,274	125,708	43,424	37,809	98,290	8,976
Male	315,891	121,633	88,246	27,200	27,208	44,448	7,157
Race							
White	681,085	244,933	182,884	59,905	57,386	122,059	13,918
Black	78,106	25,169	21,683	8,429	5,775	15,724	1,326
Other	28,180	8,805	9,387	2,289	1,856	4,955	*
	Percent distribution						
All visits	100.0	35.4	27.2	9.0	8.3	18.1	2.0
Age							
Under 15 years	100.0	54.0	10.3	3.7	4.1	26.2	1.8
15–24 years	100.0	40.2	16.8	7.1	7.1	27.0	1.8
25–44 years	100.0	35.5	22.6	9.0	8.2	22.4	2.3
45–64 years	100.0	29.2	35.2	11.6	9.1	12.8	2.1
65–74 years	100.0	26.6	39.5	10.5	10.2	11.2	2.0
75 years and over	100.0	26.8	39.5	10.8	11.5	9.2	2.1
Sex							
Female	100.0	33.4	26.7	9.2	8.0	20.8	1.9
Male	100.0	38.5	27.9	8.6	8.6	14.1	2.3
Race							
White	100.0	36.0	26.9	8.8	8.4	17.9	2.0
Black	100.0	32.2	27.8	10.8	7.4	20.1	1.7
Other	100.0	31.2	33.3	8.1	6.6	17.6	*

* Figure does not meet standard of reliability or precision.

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

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 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 to be recorded as ''0'' minutes.

Two-thirds (63.3 percent) of physicians' office visits had durations of 15 minutes or less in 1997, while one-third (36.7 percent) lasted over 15 minutes. The mean duration for visits at which the physician was seen was 18.8 minutes. At 3.2 percent of visits, no time was spent with a physician. This proportion appears to have decreased substantially from the 1996 figure of 14.7 percent. However, in the 1996 data, visits at which a physician was seen but which were missing a reported duration were included in the ''0'' minutes category. Modifications to the 1997 data editing process have eliminated this problem, and missing durations have been imputed for these records.

Additional reports that utilize 1997 NAMCS data are in the *Advance Data from Vital and Health Statistics* series. Data from the 1997 NAMCS are currently available as downloadable data files accessed through the new Ambulatory Health Care home page on the Internet (www.cdc.gov/nchswww/about/major/ahcd/ahcd1.htm). Other formats that will be available soon include public use data tapes and CD-ROM. For the first time in the NAMCS data, verbatim text that describes the cause of injury may be analyzed. Questions regarding this report, future reports, or the NAMCS may be directed to the Ambulatory Care Statistics Branch at (301) 436–7132.

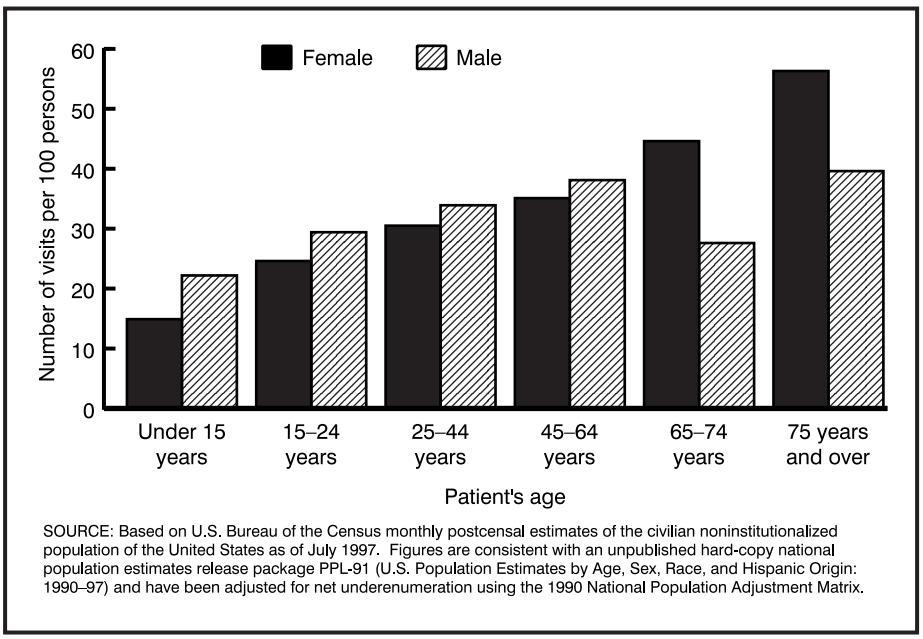
Table 11. Number, percent distribution, and annual rate of injury-related office visits by patient's age, sex and race: United States, 1997

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	81,655	100	30.6
Age			
Under 15 years	11,132	13.6	18.7
15–24 years	9,936	12.2	27.0
25–44 years	26,806	32.8	32.8
45–64 years	20,091	24.6	36.6
65–74 years	6,678	8.2	37.0
75 years and over	6,980	8.5	49.9
Sex and age			
Female	40,962	50.2	30.0
Under 15 years	4,355	5.3	14.9
15–24 years	4,474	5.5	24.6
25–44 years	12,912	15.8	30.5
45–64 years	9,960	12.2	35.1
65–74 years	4,441	5.4	44.6
75 years and over	4,851	5.9	56.3
Male	40,661	49.8	31.2
Under 15 years	6,777	8.3	22.2
15–24 years	5,462	6.7	29.4
25–44 years	13,926	17.1	33.9
45–64 years	10,131	12.4	38.1
65–74 years	2,237	2.7	27.6
75 years and over	2,128	2.6	39.6
Race			
White	70,589	86.4	32.1
Black	7,003	8.6	20.5
Other	4,031	4.9	32.2

* Figure does not meet standard of reliability or precision.

[1]Based on U.S. Bureau of the Census monthly postcensal estimates of the civilian noninstitutionalized population of the United States as of July 1, 1997. Figures are consistent with an unpublished hard-copy national population estimates release package PPL-91 (U.S. Population Estimates by Age, Sex, Race, and Hispanic Origin: 1990–97) and have been adjusted for net underenumeration using the 1990 National Population Adjustment Matrix.

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



SOURCE: Based on U.S. Bureau of the Census monthly postcensal estimates of the civilian noninstitutionalized population of the United States as of July 1997. Figures are consistent with an unpublished hard-copy national population estimates release package PPL-91 (U.S. Population Estimates by Age, Sex, Race, and Hispanic Origin: 1990–97) and have been adjusted for net underenumeration using the 1990 National Population Adjustment Matrix.

Figure 5. Annual rate of injury-related visits to office-based physicians by patient's age and sex: United States, 1997

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Table 12. Number and percent distribution of injury-related office visits by selected characteristics of the injury: United States, 1997

Selected characteristic of the injury	Number of visits in thousands	Percent distribution
All injury-related visits	81,655	100
Place of occurrence		
Residence	13,088	16.0
Recreation/sports area	6,023	7.4
Street or highway	8,308	10.2
School	1,680	2.1
Other public building	1,455	1.8
Industrial places	9,676	11.8
Other/unknown[1]	41,424	50.7
Intentionality		
Yes (self-inflicted)	*	*
Yes (assault)	1,348	1.7
No, unintentional	57,099	69.9
Unknown/blank	22,847	28.0
Work related		
Yes	16,575	20.3
No	31,399	38.5
Unknown/blank	33,681	41.2

* Figure does not meet standards of reliability or precision.
[1]For 1997 ''other'' and ''unknown'' were combined because of a processing error. In 1996 the percent unknown was 45.6 percent.

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

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Table 13. Number and percent distribution of injury-related office visits by intent and mechanism of external cause: United States, 1997

Intent and mechanism[1]	Number of visits in thousands	Percent distribution
All injury-related visits	81,655	100.0
Unintentional injuries	56,180	68.8
Falls	11,528	14.1
Motor vehicle traffic	7,940	9.7
Overexertion and strenuous movements	6,657	8.2
Striking against or struck accidentally by objects or persons	6,390	7.8
Natural and environmental factors	2,892	3.5
Cutting or piercing instruments or objects	2,610	3.2
Other and not elsewhere classified[2]	8,813	10.8
Mechanism unspecified	9,352	11.5
Intentional injuries	1,488	1.8
Assault	1,268	1.6
Injuries of undetermined intent	736	0.9
Adverse effects of medical treatment	4,261	5.2
Blank cause[3]	18,989	23.3

[1]Based on the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD–9–CM), Supplementary Classification of External Causes of Injury and Poisoning (5). A detailed description of the ICD–9–CM E-codes used to create the groupings in this table is provided in the Technical notes.
[2]Includes suffocation, poisoning, other transportation, machinery, firearm, fire and flames, drowning/submersion, and pedal cycle.
[3]Includes illegible entries and blanks.

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

Table 14. Number and percent distribution of office visits by physician's primary diagnosis: United States, 1997

Major disease category and ICD–9–CM code range[1]	Number of visits in thousands	Percent distribution
All visits	787,372	100.0
Infectious and parasitic diseases 001–139	23,251	3.0
Neoplasms 140–239	25,479	3.2
Endocrine, nutritional and metabolic diseases, and immunity disorders 240–279	40,097	5.1
Mental disorders 290–319	39,491	5.0
Diseases of the nervous system and sense organs 320–389	77,766	9.9
Diseases of the circulatory system 390–459	60,199	7.6
Diseases of the respiratory system 460–519	95,421	12.1
Diseases of the digestive system 520–579	26,111	3.3
Diseases of the genitourinary system 580–629	47,941	6.1
Diseases of the skin and subcutaneous tissue 680–709	40,084	5.1
Diseases of the musculoskeletal system and connective tissue 710–739	58,324	7.4
Symptoms, signs, and ill-defined conditions 780–799	44,358	5.6
Injury and poisoning 800–999	50,222	6.4
Supplementary classification V01–V82	129,373	16.4
All other diagnoses[2]	22,836	2.9
Unknown[3]	6,423	0.8

[1]Based on the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD–9–CM) (5).
[2]Includes 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).
[3]Includes blank diagnoses, uncodable diagnoses, and illegible diagnoses.

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

Table 15. Number and percent distribution of office visits by selected primary diagnosis groups and patient's sex: United States, 1997

Primary diagnosis group and ICD–9–CM code(s)[1]	Number of visits in thousands	Total	Patient's sex	
			Female[2]	Male[3]
		Percent distribution		
All visits	787,372	100.0	100.0	100.0
Acute upper respiratory infections, excluding pharyngitis 460–461,463–6	31,957	4.1	3.7	4.6
Essential hypertension 401	29,716	3.8	3.7	3.9
Routine infant or child health check V20.2	27,585	3.5	2.8	4.5
Normal pregnancy V22	22,848	2.9	4.8	0.0
Arthropathies and related disorders 710–719	20,860	2.6	3.0	2.2
General medical examination V70	20,804	2.6	2.6	2.7
Otitis media and Eustachian tube disorders 381–382	20,009	2.5	2.0	3.3
Diabetes mellitus 250	17,878	2.3	2.0	2.7
Malignant neoplasms 140–208, 230–234	16,592	2.1	1.7	2.7
Rheumatism, excluding back 725–729	16,415	2.1	2.1	2.0
Dorsopathies 720–724	15,831	2.0	1.8	2.3
Chronic sinusitis 473	13,349	1.7	1.7	1.7
Ischemic heart disease 410–414	10,678	1.4	0.9	2.1
Follow-up examination V67	10,151	1.3	1.4	1.1
Asthma 493	9,834	1.2	1.1	1.5
Chronic and unspecified bronchitis 490–491	9,727	1.2	1.0	1.6
Heart disease, excluding ischemic 391–392.0,393–398,402,404,415–416,420–429	9,220	1.2	0.9	1.5
Cataract 366	9,087	1.2	1.3	0.9
Potential health hazards related to personal and family history V10–V19	8,355	1.1	1.0	1.2
Allergic rhinitis 477	7,763	1.0	1.1	0.9
All other	458,713	58.3	59.2	56.8

. . . Category not applicable.
[1]These groups are based on the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD–9–CM) (5). However, certain codes have been combined in this table to form larger categories that better describe the utilization of ambulatory care services.
[2]Based on 471,481,000 visits made by females.
[3]Based on 315,891,000 visits made by males.

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

Table 16. Number and percent of office visits by diagnostic and screening services ordered or provided and patient's sex: United States, 1997

Diagnostic and screening services ordered or provided	Number of visits in thousands[1]	Patient's sex		
		Total	Female[2]	Male[3]
		Percent of visits		
All visits	787,372	. . .	. . .	. . .
None	212,812	27.0	24.4	31.4
Examinations				
Skin	67,463	8.6	8.7	8.3
Pelvic	59,056	7.5	11.7	1.2
Visual acuity	58,935	7.5	7.3	7.7
Breast	49,222	6.3	9.8	1.0
Rectal	36,288	4.6	4.5	4.8
Glaucoma	33,131	4.2	4.2	4.2
Hearing	14,387	1.8	1.6	2.2
Tests				
Blood pressure	360,439	45.8	49.3	40.5
Urinalysis	86,356	11.0	12.3	8.9
Hematocrit/hemoglobin	40,254	5.1	5.4	4.7
Pap test	31,766	4.0	6.7	. . .
Cholesterol measure	30,230	3.8	3.5	4.3
EKG[4]	22,092	2.8	2.1	3.9
Strep test	11,805	1.5	1.3	1.7
PSA[5]	9,857	1.3	. . .	3.1
Pregnancy test	5,093	0.6	1.1	. . .
Blood lead level	3,633	0.5	0.5	0.4
HIV serology[6]	2,503	0.3	0.3	0.3
Other STD test[7]	3,333	0.4	0.5	. . .
Other blood test	95,845	12.2	12.7	11.4
Imaging				
x ray	50,978	6.5	5.9	7.3
Ultrasound	18,666	2.4	3.0	1.5
Mammography	13,353	1.7	2.8	. . .
CAT scan/MRI[8,9]	8,263	1.0	1.0	1.1

. . . Category not applicable.
[1]Total exceeds total number of visits because more than one service may be reported per visit.
[2]Based on 471,481,000 visits made by females.
[3]Based on 315,891,000 visits made by males.
[4]EKG is electrocardiogram.
[5]PSA is prostate-specific antigen.
[6]HIV is human immunodeficiency virus.
[7]STD is sexually transmitted disease.
[8]MRI is magnetic resonance imaging.
[9]CAT is computerized axial tomography.

Table 17. Number and percent of office visits by therapeutic and preventive services ordered or provided and patient's sex: United States, 1997

Therapeutic and preventive services ordered or provided	Number of visits in thousands[1]	Total	Patient's sex	
			Female[2]	Male[3]
		Percent of visits		
All visits	787,372	. . .	. . .	. . .
None	484,012	61.5	60.0	63.9
Counseling/education				
Diet	121,645	15.4	15.9	14.7
Exercise	80,458	10.2	10.2	10.2
Mental health	21,332	2.7	3.0	2.3
Injury prevention	19,568	2.5	2.2	3.0
Growth/development	18,434	2.3	1.9	3.0
Tobacco use/exposure	18,071	2.3	2.1	2.5
Stress management	17,649	2.2	2.5	1.9
Prenatal instructions	16,621	2.1	3.5	. . .
Breast self-examination	16,496	2.1	3.4	*
Skin cancer prevention	12,087	1.5	1.5	1.6
Family planning/contraception	11,353	1.4	2.2	*
HIV/STD transmission[4,5]	5,709	0.7	0.9	0.4
Other therapy				
Physiotherapy	24,829	3.2	3.1	3.2
Psychotherapy	19,032	2.4	2.4	2.4
Psycho-pharmacotherapy	16,678	2.1	2.3	1.9

. . . Category not applicable.
* Figure does not meet standards of reliability or precision.
[1]Total exceeds total number of visits because more than one service may be reported per visit.
[2]Based on 471,481,000 visits made by females.
[3]Based on 315,891,000 visits made by males.
[4]HIV is human immunodeficiency virus.
[5]STD is sexually transmitted diseases.

Table 18. Number and percent of office visits by the 20 write-in procedures most often ordered or performed: United States, 1997

Procedures ordered or performed and ICD–9–CM code[1]		Number of visits in thousands	Percent of visits
All visits		787,372	. . .
Other nonoperative measurements and examinations	89.39	32,515	4.1
Other local excision or destruction of lesion or tissue of skin and subcutaneous tissue	86.30	12,411	1.6
Eye examination, not otherwise specified	95.09	5,608	0.7
Fetal monitoring, not otherwise specified	75.34	4,043	0.5
Vital capacity determination	89.37	3,294	0.4
Fundus photography	95.11	2,921	0.4
Biopsy of skin and subcutaneous tissue	86.11	2,595	0.3
Other cardiovascular stress test	89.44	2,535	0.3
Other microscopic examination from lower gastrointestinal tract and of stool	90.99	2,365	0.3
Removal of other therapeutic device	97.89	2,316	0.3
Fitting and dispensing of spectacles	95.31	2,088	0.3
Flexible sigmoidoscopy	45.24	2,036	0.3
Other nonoperative respiratory measurements and examinations	89.38	1,927	0.2
Microscopic examination of specimen from skin and other integument	91.69	1,903	0.2
Ophthalmoscopy	16.21	1,761	0.2
Other diagnostic procedures on fetus and amnion	75.35	1,670	0.2
Other immobilization, pressure, and attention to wound	93.59	1,592	0.2
Neurologic examination	89.13	1,569	0.2
Colonoscopy	45.23	1,551	0.2
Irrigation of ear	96.52	1,514	0.2

. . . Category not applicable.
[1]Based on the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD–9–CM) (5).

Table 19. Number and percent distribution of office visits by medication therapy and number of medications provided or prescribed according to patient's sex: United States, 1997

Visit characteristic	Number of visits in thousands	Total	Female[2]	Male[3]
Medication therapy[1]		Percent distribution		
All visits	787,372	100.0	100.0	100.0
Drug visits[4]	498,930	63.4	63.8	62.7
Visits without mention of medication	288,442	36.6	36.2	37.3
Number of medications provided or prescribed by physician				
All visits	787,372	100.0	100.0	100.0
0	288,442	36.1	36.2	37.3
1	235,687	28.3	29.8	30.1
2	131,433	18.3	16.9	16.3
3	60,992	8.1	7.7	7.8
4	28,833	4.1	3.7	3.6
5	17,875	2.1	2.4	2.0
6	24,110	3.0	3.2	2.8

[1]Includes prescription drugs, over-the-counter preparations, immunizing agents, and desensitizing agents.
[2]Based on 471,481,000 visits made by females.
[3]Based on 315,891,000 visits made by males.
[4]Visits at which one drug or more was provided or prescribed by the physician.
NOTE: Numbers may not add to totals because of rounding.

Table 20. Number and percent distribution of drug visits and drug mentions by physician specialty: United States, 1997

Physician specialty	Drug visits[1]		Drug mentions		Percent drug visits[2]	Number of drug mentions per 100 visits[3]
	Number in thousands	Percent distribution	Number in thousands	Percent distribution		
All specialties	498,930	100.0	1,030,897	100.0	63.4	2.1
General and family practice	155,222	31.1	334,556	32.5	77.4	2.2
Internal medicine	84,718	17.0	203,705	19.8	70.0	2.4
Pediatrics	61,963	12.4	97,698	9.5	67.5	1.6
Obstetrics and gynecology	32,348	6.5	46,951	4.6	45.5	1.5
Ophthalmology	23,416	4.7	40,989	4.0	51.0	1.8
Psychiatry	18,740	3.8	37,300	3.6	72.9	2.0
Dermatology	18,050	3.6	30,533	3.0	62.8	1.7
Cardiovascular diseases	14,333	2.9	47,802	4.6	83.0	3.3
Orthopedic surgery	11,366	2.3	16,298	1.6	33.0	1.4
Otolaryngology	10,795	2.2	17,559	1.7	52.7	1.6
General surgery	8,150	1.6	15,678	1.5	38.2	1.9
Urology	7,837	1.6	12,240	1.2	46.4	1.6
Neurology	4,656	0.9	8,264	0.8	59.5	1.8
All other specialties	47,335	9.5	121,324	11.8	56.2	2.6

[1]Visits at which one or more drugs were provided or prescribed by the physician.
[2]Number of drug visits divided by number of office visits multiplied by 100.
[3]Number of drug mentions divided by total number of visits multiplied by 100.
NOTE: Numbers may not add to totals because of rounding.

Table 21. Number, percent distribution, and annual rate of drug mentions by therapeutic classification: United States, 1997

Therapeutic classification[1]	Number of drug mentions in thousands	Percent distribution	Number of drug mentions per 100 visits[2]
All drug mentions	1,030,897	100.0	130.9
Cardiovascular-renal drugs	151,226	14.7	19.2
Antimicrobial agents	122,801	11.9	15.6
Drugs used for relief of pain	114,583	11.1	14.6
Respiratory tract drugs	100,218	9.7	12.7
Hormones and agents affecting hormonal mechanisms	98,444	9.5	12.5
Central nervous system	90,769	8.8	11.5
Metabolic and nutrient agents	58,956	5.7	7.5
Skin/mucous membrane	58,756	5.7	7.5
Immunologic agents	46,236	4.5	5.9
Gastrointestinal agents	43,573	4.2	5.5
Ophthalmic drugs	36,369	3.5	4.6
Neurologic drugs	25,566	2.5	3.2
Hematologic agents	24,556	2.4	3.1
Anesthetic drugs	8,361	0.8	1.1
Oncolytic agents	7,458	0.7	0.9
Otologics	5,614	0.5	0.7
Contrast media/radiopharmaceuticals	4,672	0.5	0.6
Antiparasitics	4,353	0.4	0.6
Other and unclassified[3]	28,386	2.8	3.6

[1]Based on the standard drug classification used in the *National Drug Code Directory*, 1995 edition (7).
[2]Number of drug mentions divided by total number of visits multiplied by 100.
[3]Includes antidotes, unclassified/miscellaneous drugs, and homeopathic products.
NOTE: Numbers may not add to totals because of rounding.

Table 22. Number of generic substances and percent of all drug mentions for the 20 most frequently occurring generic substances in drug mentions at office visits: United States, 1997

Generic substance	Number of occurrences in thousands[1]	Percent of drug mentions[2]
All generic substances	1,221,274	. . .
Acetaminophen	38,003	3.7
Amoxicillin	31,338	3.0
Hydrochlorothiazide	16,797	1.6
Aspirin	16,657	1.6
Ibuprofen	16,004	1.6
Estrogens	15,560	1.5
Albuterol	15,035	1.5
Furosemide	13,810	1.3
Guaifenesin	13,560	1.3
Hydrocodone	12,824	1.2
Levothyroxine	11,596	1.1
Influenza virus vaccine	11,102	1.1
Loratadine	10,975	1.1
Naproxen	10,581	1.0
Prednisone	10,470	1.0
Estradiol	10,262	1.0
Digoxin	10,236	1.0
Triamcinolone	9,949	1.0
Atenolol	9,530	0.9
Lisinopril	9,225	0.9

. . . Category not applicable.
[1]Frequency of mention combines single-ingredient agents with mentions of the agent as an ingredient in a combination drug.
[2]Based on an estimated 1,030,897,000 drug mentions in 1997.

Table 23. Number, percent distribution, and therapeutic classification for the 20 drugs most frequently prescribed at office visits, by entry name of drug: United States, 1997

Entry name of drug[1]	Number of drug mentions in thousands	Percent distribution	Therapeutic classification[2]
All drug mentions	1,030,897	100.0	. . .
Amoxicillin	14,148	1.4	Penicillins
Tylenol	13,029	1.3	Analgesics, nonnarcotic
Lasix	12,353	1.2	Diuretics
Claritin	10,962	1.1	Antihistamines
Premarin	10,713	1.0	Estrogens and progestins
Synthroid	10,706	1.0	Agents used to treat thyroid disease
Prednisone	10,215	1.0	Adrenal corticosteroids
Amoxil	8,924	0.9	Penicillins
Lanoxin	8,492	0.8	Cardiac glycosides
Coumadin	8,276	0.8	Anticoagulants/thrombolytics
Prozac	8,225	0.8	Antidepressants
Biaxin	8,122	0.8	Erythromycins/Lincosamides/Macrolides
Xanax	7,846	0.8	Antianxiety agents
Prilosec	7,716	0.7	Acid/peptic disorders
Zoloft	7,607	0.7	Antidepressants
Augmentin	7,501	0.7	Penicillins
ASA[3]	7,492	0.7	Analgesics, nonnarcotic
Influenza virus vaccine	6,837	0.7	Vaccines/antisera
Paxil	6,773	0.7	Antidepressants
Motrin	6,668	0.6	Nonsteroidal anti-inflammatory drug (NSAID)
All other	848,292	82.3	. . .

. . . Category not applicable.

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

[2]Based on the *National Drug Code Directory*, 1995 edition (NDC) (7). In cases where a drug had more than one therapeutic use, it was classified under its primary therapeutic use.

[3]ASA is acetylsalicylic acid.

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

Table 24. Number and percent of office visits by providers seen, according to physician specialty: United States, 1997

Physician specialty	Number of visits in thousands[1]	Providers seen this visit						
		Physican	Medical/ nursing assistant	R.N.[2]	L.P.N.[3]	Physician assistant	Nurse practitioner	Other provider[4]
	Number of visits in thousands							
All visits	787,372	761,907	174,009	107,103	94,013	19,174	9,212	43,352
General and family practice	200,429	193,136	51,936	31,420	37,386	4,159	5,122	11,561
Internal medicine	121,089	117,820	29,371	13,349	13,719	1,365	*	3,614
Pediatrics	91,847	88,915	18,529	12,632	10,795	2,498	*	1,809
Obstetrics and gynecology	71,109	68,302	21,926	11,376	9,542	695	2,202	2,487
Ophthalmology	45,934	45,359	13,803	669	*	3,667	–	8,946
Orthopedic surgery	34,439	32,335	6,469	3,569	2,659	2,895	–	2,633
Dermatology	28,728	28,312	5,253	1,417	3,509	*	*	*
Psychiatry	25,712	25,507	–	*	*	*	–	*
General surgery	21,353	20,805	2,723	5,427	1,807	–	*	1,228
Otolaryngology	20,496	19,066	3,670	1,961	824	407	–	1,728
Cardiovascular diseases	17,262	16,563	4,524	3,391	1,575	*	*	967
Urology	16,889	16,573	1,870	2,388	1,544	530	–	*
Neurology	7,830	7,693	856	513	314	*	*	*
All other specialties	84,256	81,522	13,078	18,383	9,165	2,435	*	7,004
		Percent of visits						
All specialties	...	96.8	22.1	13.6	11.9	2.4	1.2	5.4
General and family practice	...	96.4	25.9	15.7	18.7	2.1	2.6	5.7
Internal medicine	...	97.3	24.3	11.0	11.3	1.1	*	3.0
Pediatrics	...	96.8	20.2	13.8	11.8	2.7	*	1.9
Obstetrics and gynecology	...	96.1	30.8	16.0	13.4	1.0	3.1	3.1
Ophthalmology	...	98.7	30.0	1.5	*	8.0	–	19.5
Orthopedic surgery	...	93.9	18.8	10.4	7.7	8.4	–	7.6
Dermatology	...	98.6	18.3	4.9	12.2	*	*	*
Psychiatry	...	99.2	–	*	*	*	–	*
General surgery	...	97.4	12.8	25.4	8.5	–	*	5.8
Otolaryngology	...	93.0	17.9	9.6	4.0	2.0	–	8.4
Cardiovascular diseases	...	96.0	26.2	19.6	9.1	*	*	5.5
Urology	...	98.1	11.1	14.1	9.1	3.1	–	*
Neurology	...	98.3	10.9	6.6	4.0	*	*	*
All other specialties	...	96.8	15.5	21.8	10.9	2.9	*	8.3

* Figure does not meet standard of reliability or precision.
– Quantity zero.
. . . Category not applicable.
[1]Total exceeds total number of visits because more than one provider may be reported per visit.
[2]R.N. is registered nurse.
[3]L.P.N. is licensed practical nurse.
[4]Includes nurse midwife.

Table 25. Number and percent distribution of office visits by time spent with physician: United States, 1997

Time spent with physician	Number of visits in thousands	Percent distribution
All visits	787,372	100.0
0 minutes[1]	25,464	3.2
1–5 minutes	40,523	5.1
6–10 minutes	185,026	23.5
11–15 minutes	247,541	31.4
16–30 minutes	230,656	29.3
31–60 minutes	54,170	6.9
61 minutes and over	3,991	0.5

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

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

Technical notes

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 in 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 this report were approximated using SUDAAN software. 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 (17). 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. When it is not feasible to use statistical software, such as SUDAAN, for analyzing complex survey data, one may calculate approximate relative standard errors for aggregate estimates by using the following general formula, where x is the aggregate of interest in thousands, and A and B are the appropriate coefficients from table I.

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

Table I. Coefficients appropriate for determining approximate relative standard errors by type of estimate and physician specialty: National Ambulatory Medical Care Survey, 1997

Type of estimate and physician specialty	Coefficient for use with estimates in thousands		Lowest reliable estimate in thousands
	A	*B*	
Visits			
Overall totals	0.001857	64.780	735
General and family practice	0.007356	62.906	761
Internal medicine	0.012143	74.525	957
Pediatrics	0.008147	49.536	605
General surgery	0.024047	32.548	494
Obstetrics and gynecology	0.007765	80.979	985
Orthopedic surgery	0.012975	38.628	502
Cardiovascular diseases	0.010650	31.882	402
Dermatology	0.019654	22.937	326
Urology	0.017581	22.651	313
Psychiatry	0.013737	36.523	479
Neurology	0.018328	21.809	305
Ophthalmology	0.015676	57.666	776
Otolaryngology	0.017044	25.927	356
All other specialties	0.019431	87.732	1,243
Drug mentions			
Overall totals	0.002257	170.275	1,941
General and family practice	0.009011	174.136	2,150
Internal medicine	0.012821	203.849	2,641
Pediatrics	0.008850	106.048	1,307
General surgery	0.034573	51.305	926
Obstetrics and gynecology	0.009655	147.916	1,841
Orthopedic surgery	0.016126	62.234	842
Cardiovascular diseases	0.012092	110.013	1,412
Dermatology	0.018166	62.945	876
Urology	0.026781	36.702	581
Psychiatry	0.018614	89.076	1,248
Neurology	0.019773	48.315	688
Ophthalmology	0.014886	123.023	1,638
Otolaryngology	0.019409	53.766	762
All other specialties	0.028099	162.103	2,619

NOTES: These coefficients apply to National Ambulatory Medical Care Survey data where doctors of osteopathy (D.O.'s) have been aggregated with doctors of medicine (M.D.'s) according to their self-designated practice specialty. For those who wish to conduct a separate analysis on visits to doctors of osteopathy, the A and B coefficients for use with visit estimates in thousands are .044465 and 37.099, respectively. The corresponding coefficients for estimates of drug mentions in thousands are .051359 and 98.553. Estimates based on less than 30 cases are unreliable regardless of the relative standard error.

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

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

The standard error for a rate may be obtained by multiplying the relative standard error of the total estimate by the rate.

Published and flagged estimates

Estimates are not presented unless a reasonable assumption regarding their probability distributions is possible on the basis of the Central Limit Theorem. The Central Limit Theorem states that, given a sufficiently large sample size, the sample estimate approximates the population estimate and, upon repeating sampling, its distribution would be approximately normal.

In this report estimates are not presented if they are based on fewer than 30 cases in the sample data; only an asterisk (*) appears in the tables. Estimates based on 30 cases or more are asterisked only if the relative standard error of the estimate exceeds 30 percent.

Nonsampling errors

As in any survey, results are subject to sampling and nonsampling errors. Nonsampling errors include reporting and processing errors, as well as biases due to nonresponse and incomplete response. The magnitude of the nonsampling errors cannot be computed. However, these errors were kept to a minimum by procedures built into the operation of the survey. To eliminate ambiguities and encourage uniform reporting, attention was given to the phrasing of questions, terms, and definitions. Also, pretesting of most data items and survey procedures was performed. Quality control procedures and consistency and edit checks reduced errors in data coding and processing. Coding error rates ranged from 0.0 to 1.7 for various data items.

Adjustments for survey 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.

Adjustments for item nonresponse—Weighted item nonresponse rates were 5.0 percent or less for all data items with the following exceptions: Is patient pregnant? (15.4 percent of visits for women 15–44 years of age), ethnicity (21.2 percent), was authorization required for care? (8.4 percent), does patient belong to an HMO? (10.4 percent), is this a capitated visit? (13.8 percent), cause of injury (23.3 percent of injury visits), place of injury (50.7 percent of injury visits), is this injury intentional? (28.0 percent of injury visits), is this injury work related? (41.2 percent of injury visits), is medication from patient's formulary list? (36.3 percent), employment status of physician (8.1 percent), and who owns the physician's practice? (6.6 percent).

For some items missing values were imputed by randomly assigning a value from a Patient Record form with similar characteristics; imputations were based on physician specialty, geographical region, and 3-digit ICD–9–CM codes for principal diagnosis. Imputations were performed for the following variables– birth year (3.2 percent), sex (1.2 percent), race (12.6 percent), and time spent with physician (11.5 percent). This represents a change from previous survey years where imputations were also performed for the following variables: Ethnicity; provider seen; was patient seen before, and if yes, for the current principal diagnosis?; referral; and disposition of visit. Beginning in 1997 these latter items are no longer imputed. Blank or otherwise missing responses are so noted in the data.

Tests of significance and rounding

In this report the determination of statistical inference is based on a 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 percent were calculated from original unrounded figures and do not necessarily agree with figures calculated from rounded data.

Injury groupings

Table 13 of this report presents data on the intent and mechanism producing the injuries that resulted in ambulatory care visits to physician offices. Cause of injury is collected for each sampled visit in the NAMCS and is coded according to the ICD–9–CM's ''Supplementary Classification of External Causes of Injury and Poisoning.'' For table 13, however, the first-listed cause of injury data were regrouped to highlight the

Table II. Reclassification of external cause-of-injury codes for use with National Ambulatory Medical Care Survey data

Intent and mechanism of injury	Cause of injury code[1]
Unintentional injuries	E800–E869, E880–E929
Falls	E880.0–E886.9, E888
Motor vehicle traffic	E810–E819
Striking against or struck accidentally by objects or persons	E916–E917
Overexertion and strenuous movements	E927
Cutting or piercing instruments or objects	E920
Natural and environmental factors	E900–E909, E928.0–E928.2
Poisoning by drugs, medicinal substances, biologicals, other solid and liquid substances, gases, and vapors	E850–E869
Fire and flames, hot substance or object, caustic or corrosive material and steam	E890–E899, E924
Machinery	E919
Pedal cycle, nontraffic and other	E800–E807(.3), E820–E825(.6), E826.1, E826.9
Motor vehicle, nontraffic	E820–E825 (.0–.5,.7–.9)
Other transportation	E800–807(.0.2,.8.9), E826 (.0,.2.8), E827–E829, E831, E833–E845
Suffocation	E911–E913
Firearm missile	E922
Drowning/submersion	E830, E832, E910
Other and not elsewhere classified	E846–E848, E914–E915, E918, E921, E923, E925–E926, E929.0–E929.5, E928.8
Mechanism unspecified	E887, E928.9, E929.8, E929.9
Intentional injuries	E950–E959, E960–E969, E970–E978, E990–E999
Assault	E960–E969
Self-inflicted	E950–E959
Other causes of violence	E970–E978, E990–E999
Injuries of undetermined intent	E980–E989
Adverse effects of medical treatment	E870–E879, E930–E949

[1]Based on the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD–9–CM), Supplementary Classsification of External Causes of Injury and Poisoning (5).

interaction between intentionality of the injury and the mechanism that actually produced the injury. Table II shows the groupings used to produce this table.

Physician specialty groupings

The NAMCS survey design grouped physicians into 15 strata, or specialty groups, for sampling purposes. One stratum, doctors of osteopathy, was based on information from the American Osteopathic Association. The other groups (general and family practice, internal medicine, pediatrics, general surgery, obstetrics and gynecology, orthopedic surgery, cardiovascular diseases, dermatology, urology, psychiatry, neurology, ophthalmology, otolaryngology, and a residual category of other specialties) were developed based on information from the American Medical Association.

Estimates are presented in this report with doctors of osteopathy combined with doctors of medicine, unless otherwise noted. In table 2 and figure 4, data on office visits are presented using the broader categories of primary care, surgical, and nonsurgical specialties. Table III shows the specialties used to define these categories.

Population figures and rate calculation

The figures represent U.S. Bureau of the Census estimates of the civilian, noninstitutionalized population as of July 1, 1997. Figures are based on monthly postcensal estimates of this population. Figures are consistent with an unpublished hard-copy national population estimates release package PPL-91 (U.S. Population Estimates by Age, Sex, Race, and Hispanic Origin: 1990–97) and have been adjusted for net underenumeration using the 1990 National Population Adjustment Matrix (3). Regional and metropolitan estimates have been provided by the Division of Health Interview Statistics (DHIS), NCHS, and are based on U.S. Bureau of the Census estimates of the civilian noninstitutionalized population of the United States as of July 1, 1997. DHIS estimates differ slightly from monthly postcensal estimates because of differences in the adjustment process.

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 six medications per visit.

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

Illness-related visit—A visit is considered illness-related if it was not an injury visit as defined below.

Injury-related visit—A visit is injury-related if ''yes'' was checked in response to question 15, ''Is this visit related to injury or poisoning?'' or if a cause of injury or a nature of injury diagnosis was provided, or if an injury-related reason for visit was reported.

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

Table III. Reclassification of physician specialty for use with National Ambulatory Medical Care Survey data

Physician specialty group	Physician specialty
Primary care specialties	General/family practice, internal medicine, adolescent medicine, pediatrics, pediatric sports medicine, adolescent medicine (internal medicine), gynecology, maternal and fetal medicine, obstetrics and gynecology, obstetrics, geriatric medicine (internal medicine), and sports medicine (internal medicine).
Surgical specialties	Hand surgery, adult reconstructive orthopedics, foot and ankle orthopedics, musculoskeletal oncology, pediatric orthopedics, orthopedic surgery, sports medicine (orthopedic surgery), orthopedic surgery of the spine, orthopedic trauma, gynecological oncology, urology, pediatric urology, ophthalmology, pediatric ophthalmology, otology, otolaryngology, pediatric otolaryngology, general surgery, critical care medicine (obsterics and gynecology), abdominal surgery, cardiovascular surgery, colon and rectal surgery, cardiothoracic surgery, facial plastic surgery, head and neck surgery, hand surgery (plastic surgery), hand surgery (surgery), critical care (neurological surgery), neurological surgery, pediatric surgery (neurology), pediatric surgery, plastic surgery, surgical oncology, thoracic surgery, and transplant surgery.
Nonsurgical specialties	Allergy, addiction medicine, addiction psychiatry, allergy and immunology, allergy and immunology/diagnostic laboratory immunology, bronchoesophageal medicine, clinical genetics, clinical biochemical genetics, clinical cytogenetics, clinical molecular genetics, critical care medicine, dermatological immunology/diagnostic laboratory immunology, diabetes, emergency medicine, endocrinology, sports medicine (emergency medicine), medical toxicology (emergency medicine), gastroenterology, general preventive medicine, hematology, hepatology, hematology/oncology, cardiac electrophysiology, infectious diseases, immunology, legal medicine, medical management, medical genetics, nephrology, nutrition, occupational medicine, medical oncology, clinical pharmacology, pulmonary critical care medicine, pediatric emergency medicine (emergency medicine), public health and general preventive medicine, pediatric/diagnostic laboratory immunology, palliative medicine, physical medicine and rehabilitation, pain medicine, medical toxicology (preventive medicine), pulmonary diseases, rheumatology, spinal cord injury, sleep medicine, undersea medicine.

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.

Trade name disclaimer

The use of trade names is for identification only and does not imply endorsement by the Centers for Disease Control and Prevention, U.S. Department of Health and Human Services.

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