

National Ambulatory Medical Care Survey: 2002 Summary

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Abstract

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

Methods—The data presented in this report were collected from the 2002 National Ambulatory Medical Care Survey (NAMCS). NAMCS is a part of the ambulatory care component of the National Health Care Survey that 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 national estimates. Selected trends from 1992, 1993, 1995, and 1997 are also presented.

Results—During 2002, an estimated 890 million visits were made to physician offices in the United States, an overall rate of 314.4 visits per 100 persons. From 1992 through 2002, the visit rate for persons 45 years of age and over increased by 14%, from 407.3 to 465.8 visits per 100 persons. The visit rate to physician offices in metropolitan statistical areas (MSAs) (337.3 visits per 100 persons) was significantly larger than the rate in non-MSAs (221.9 visits per 100 persons). For one-half of all office visits, regardless of specialty, physicians indicated they were the patient's primary care physician (PCP). Of the visits to physicians other than the patient's PCP, about one-third (31.1 percent) were referrals. New patients, representing 12.1 percent of the visits in 2002, are down 18% since 1992. Primary care specialists provided 90 percent of all preventive care visits. Essential hypertension, acute upper respiratory infection, diabetes mellitus, and arthropathies were the leading illness-related primary diagnoses. There were an estimated 104.0 million injury-related visits in 2002, or 36.7 visits per 100 persons. On average, 2.3 medications were ordered or provided at each office visit with any mention of a medication. The leading therapeutic class for drugs mentioned at office visits included nonsteroidal anti-inflammatory drugs (NSAIDs) (4.9 mentions per 100 visits) and antidepressants (4.5 mentions per 100 visits). Of primary care specialists, 25.8 percent reported not accepting new patients who are Medicaid enrollees.

Keywords: ambulatory care • physician office care • diagnoses • injury • medications • ICD-9-CM • primary care

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 health care utilization in the United States. The NAMCS and NHAMCS are part of the National Health Care Survey (NHCS), which measures health care utilization across various types of providers. More information about the NHCS can be found at the National Center for Health Statistics (NCHS) Web site: www.cdc.gov/nchs/nhcs.htm. More information on the 2002 NHAMCS annual summaries (hospital outpatient and emergency departments) is available (1,2). A separate report combining NAMCS and NHAMCS data provides a comprehensive picture of ambulatory health care utilization (3). It shows that 80 percent of ambulatory



care delivered by non-Federal physicians is provided in office-based practices. Hospital ambulatory patients are known to differ from office patients in certain demographic and medical characteristics.

This report presents national annual estimates of physician office visits for 2002. Physician practice, patient, and visit characteristics are described. A special section is presented this year on visits to primary care specialists, and additional information is also presented throughout the report.

Data Highlights

Office visit estimates

- In 2002, 890.0 million visits were made to physician offices, or about 314.4 visits per 100 persons. Of these visits, 62.7 percent were made to primary care specialists, 19.9 percent to surgical specialists, and the remaining 17.3 percent to medical specialists.
- From 1992 through 2002, the visit rate for persons 45 years of age and over increased by 14%, from 407.3 to 465.8 visits per 100 persons.
- The visit rate for white persons (334.6 visits per 100 persons) was higher than for black or African-American persons (252.9 visits per 100 persons) or Asians (229.3 visits per 100 persons).
- Private insurance was the most frequently expected source of payment, accounting for 59.0 percent of all visits, and government sources combined (Medicare and Medicaid and/or State Children's Health Insurance Program (SCHIP)) accounted for 28.6 percent of visits.
- From 1992 through 2002, the percent of visits by patients with private insurance increased by 79%, and the percent of visits where there was no third-party payer decreased by 77%.
- Of visits made to office-based physicians, 13.9 percent were referred for the current visit.
- There were 104 million injury visits to office-based physicians in 2002. The visit rate for injuries increased with patient age, resulting in a rate of 63.3 visits per 100 persons for patients 65 years of age and over. White persons had a significantly greater rate of injury visits than did black or African-American persons (39.6 versus 25.1 visits per 100 persons). Fifty percent were to primary care specialists.

Services provided

- Although the rate of preventive care visits was higher for females than for males, there were no race differences observed. Ten percent of preventive care visits were made to specialists.
- Diagnostic and screening services were ordered or provided at 84.9 percent of visits, counseling and/or education and/or therapeutic services were ordered or provided at 44.7 percent of visits, and surgical procedures were ordered or provided at 9.1 percent of visits. An estimated 69.8 million surgical procedures were ordered, scheduled, or performed during office visits. Approximately 45 percent of the surgical procedures mentioned at visits were performed in the office.
- About 1.3 billion drugs were prescribed or provided at 64.8 percent of office visits. Although the percent of visits with any drug mention did not change, the average drug mention rate increased by 25% from 1992 to 2002. This was driven by a 41% increase in visits with multiple drugs prescribed since 1992.
- Overall, the drug mention rate in 2002 was similar to 2001, but varied by physician specialty (60.7 versus 307.8 mentions per 100 visits). The drug mention rate for obstetrics/gynecology (Ob/Gyn) physicians increased 48% from 2001, driven mostly by increases in contraceptives and vitamins.
- The top three therapeutic classes, NSAIDs, antidepressants, and antihistamines, increased significantly from 1995. Antidepressants increased 48% during this period due to the increases in the drug mention rate for all ages. From 1995 through 2002, the drug mention rate at visits by children under 18 years of age rose 124%.

- A physician was seen during most office visits (95.1 percent). During approximately 25 percent of the visits a medical/nursing assistant was seen.

Visits to primary care specialists

- The majority of the 890 million office visits were to primary care specialists (62.7 percent) and of these visits most were to the patient's PCP (76.2 percent).
- Approximately 40 percent of the visits to primary care specialists were for acute problems, followed by 30 percent for chronic conditions. Ten percent were injury-related visits.
- Of the 558 million visits to primary care specialists in 2002, 70.6 percent included at least one medication ordered, supplied, administered, or continued. Vaccines accounted for almost 6 percent of the drug mentions.
- Half of the primary care visits resulted in a disposition to return for an appointment.

Physician-level estimates

- In 2002, office-based physicians reported an average of 77 office visits, 14 hospital visits, 14 telephone consultations, 1.3 house calls, and 0.4 e-mail consultations during their last full week of practice.
- Approximately three-fourths of office-based physicians own or are part owner of their practice (72.7 percent). A greater percent of primary care specialists were employees compared with surgical or medical specialists (28.2 percent versus 16.2 and 17.0 percent, respectively). Two-thirds of primary care specialists work in group practices.
- Of primary care specialists, 71.8 percent reported that they would accept new Medicare patients, a significantly lower percent than surgical specialists (96.4 percent). Similarly, 67.4 percent of primary care specialists reported that they would accept new Medicaid patients,

significantly lower than for surgical specialists (80.0 percent).

Methods

The data presented in this report are from the 2002 NAMCS, a national probability sample survey conducted by the Centers for Disease Control and Prevention's Division of Health Care Statistics of the National Center for Health Statistics. The survey was conducted from December 31, 2001, through December 30, 2002. The target universe of the NAMCS includes visits made in the United States to the offices of non-federally 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 health maintenance organizations (HMOs) were within the scope of the survey, but those that occurred 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 (PSUs), physician practices within PSUs, and patient visits within physician practices. The PSUs are counties, groups of counties, county equivalents (such as parishes or independent cities), or towns and townships for some PSUs in New England. A sample of physicians was selected from the master files of the AMA and the AOA; 2,095 were in scope (eligible to participate in the survey). Sample physicians were asked to complete Patient Record forms (see [figure 1](#)) for a systematic random sample of approximately 30 office visits occurring during a randomly assigned 1-week reporting period. The weighted response rate for in-scope physicians was 71.1 percent, and a total of 28,738 Patient Record forms were completed. The "Technical Notes" at the end of

this report provide more information on characteristics of nonresponding physicians.

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 with guidelines for judging the precision of the estimates and information on physician and item nonresponse. The standard errors are calculated using Taylor series approximations in SUDAAN, which take into account the complex sample design of the NAMCS (4). Data on physician office utilization rates from 1992 through 2002 and selected trends by patient age are also presented. A weighted least-squares regression analysis was used to determine the significance of trends at the 0.05 level.

The U.S. Census Bureau was responsible for data collection. Data processing operations and medical coding were performed by Constella Group, Inc., Durham, North Carolina. As part of the quality assurance procedure, a 10-percent quality control sample of survey records was

independently keyed and coded. Coding error rates ranged between 0.1 and 1.1 percent for various survey items.

Several of the tables in this report present rates of physician office visits per population. The population figures used in calculating these rates are based on the U.S. Census Bureau's monthly postcensal estimates of the civilian noninstitutional population of the United States as of July 1, 2002. These population estimates are based on postcensal estimates from Census 2000 and are available from the Census Bureau. See the "Technical Notes" for more information about the effects of the change from 1990-based to 2000-based denominators on trends in population rates. Estimates presented in the tables and figures for specific race categories reflect visits where only a single race was reported. See "Technical Notes" for more detail on race estimates.

Results

Results are presented separately for office visit estimates and physician practice estimates.

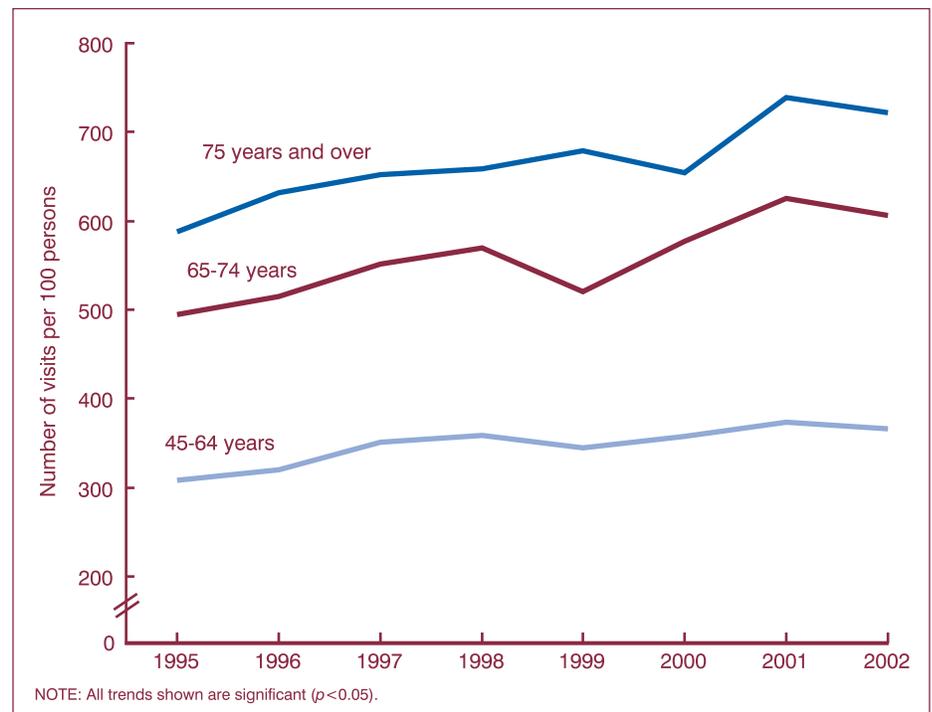


Figure 1. Trends in rate of visits to physician offices by persons 45 years of age and over: United States, 1995–2002

Office visit estimates

There were an estimated 890.0 million visits to office-based physicians in 2002, about 314.4 visits per 100 persons. Although the population of the United States increased by 13% since 1992, the number of visits to physician offices increased by 17% (5). Visit rates for age groups 45 years and over increased by 20% since 1995 (figure 1). Selected characteristics of the encounter pertaining to the physician's practice, the patient, and the visit are described later in this report. Estimates of physician practices and associated

characteristics based on the induction interview are presented at the end of the report.

Office practice characteristics—The distribution of office visits according to physician specialty is presented in table 1 and figure 2. About one-quarter of all visits were to general and family practice physicians with an additional 39.0 percent of visits to physicians specializing in internal medicine, pediatrics, and Ob/Gyn. Of all the office visits made in 2002, about 6 out of every 10 were to physicians in primary care specialties (62.7 percent) as defined in table IV of the "Technical Notes." Throughout this report, the terms "visits to primary care specialists/specialties"

and "primary care visits" will be used interchangeably. Surgical and medical specialties accounted for 19.9 and 17.3 percent of visits, respectively. Table 1 also shows that doctors of osteopathy received 65.4 million visits during 2002, or 7.3 percent of all office visits. Visits to osteopathic physicians occurred at a rate of 23.1 visits per 100 persons. Visits according to geographic region and metropolitan status are also displayed in table 1. The visit rates were similar for each of the geographic regions, except the visit rate for the Northeast region (385.2 visits per 100 persons) was significantly higher than the rate in the West (289.4 visits per 100 persons). The visit rate to physician offices located in MSAs (337.3 visits per 100 persons) was significantly larger than the rate observed in non-MSAs (221.9 visits per 100 persons).

Additional information on the physician's practice has been collected annually in the NAMCS through the Physician Induction Interview (PII) form. The PII is used to obtain basic information on the practice, establish the visit sampling rate, and record the final disposition of the interview. In 2002, selected survey items on the physician and physician's practice, including employment status, ownership, practice size, and office type, were weighted and edited to produce national estimates of office visits by these characteristics. These data demonstrate the type of practices to which visits are being made and are displayed in table 2. Overall, 86.2 percent of the visits were to physicians who owned the practice themselves or owned it with a group of other physicians. The majority of office visits (64.7 percent) were made to physicians engaged in group practice. More than one-half of all visits were to physicians in practices with 2–9 physicians (53.0 percent) compared with 11.3 percent of visits to large practices with 10 or more physicians. Significantly more visits to group practices were characterized as single-specialty practices (41.2 percent) compared with multispecialty practices (23.5 percent).

Patient characteristics—Office visits by patient's age, sex, and race are shown in table 3. As in previous years,

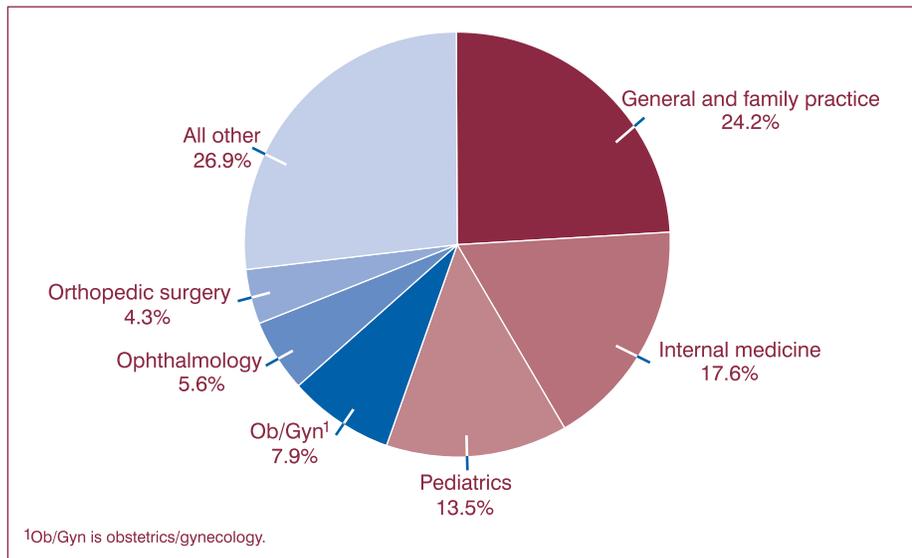


Figure 2. Percent distribution of office visits by physician specialty: United States, 2002

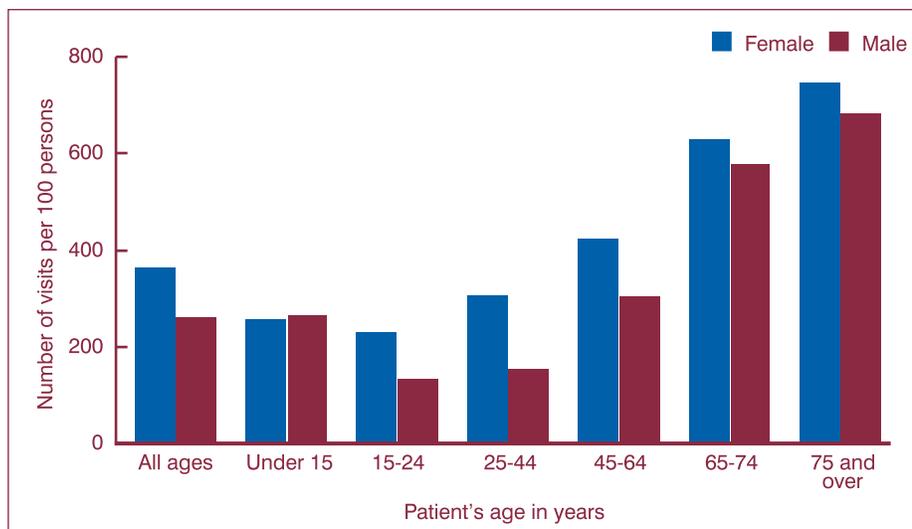


Figure 3. Annual rate of visits to office-based physicians by patient's age and sex: United States, 2002

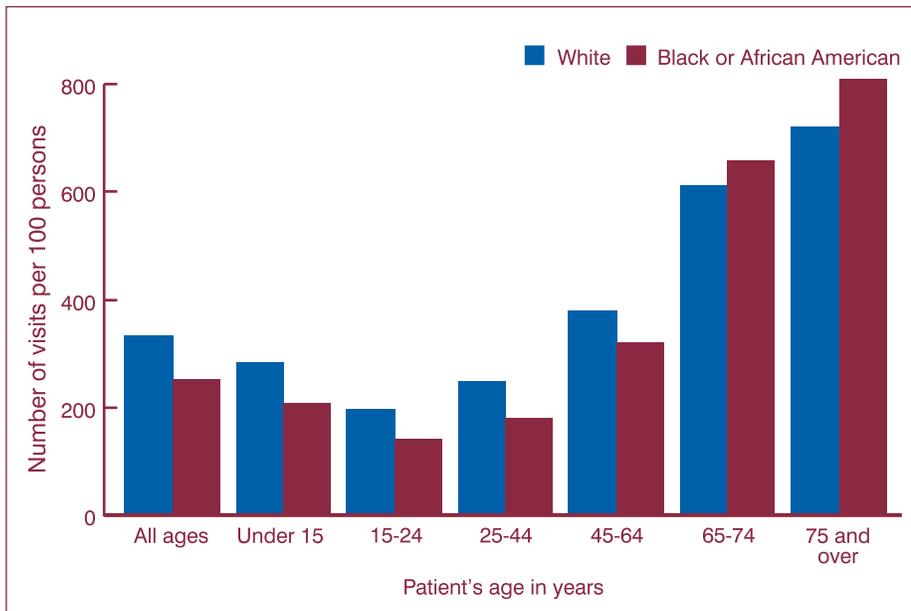


Figure 4. Annual rate of visits to office-based physicians by patient's age and race: United States, 2002

females made the majority of office visits during 2002. The percent of visits was higher for females compared with males across all age groups except for persons under 15 years of age. Sex differences were also observed for visit rates between 15 and 64 years of age. For those patients 15 years of age and over, as age increased, the number of patient visits rose. The positive effect of age on physician office utilization is shown in figures 3 and 4.

White persons represented 81 percent of the U.S. civilian noninstitutional population in 2002, but made 86.1 percent of all physician office visits. Overall, the visit rate for white persons (334.6 visits per 100 persons) was significantly higher than for black or African-American persons (252.9 visits per 100 persons), Asians (229.3 visits per 100 persons), and American Indian or Alaska Native (82.9 visits per 100 persons). Historically, visit rates for black or African-American persons to physician offices tend to be lower than those for white persons. However, differences in visit rates by race can vary by type of health care setting utilized. Data presented in the 2002 NHAMCS outpatient department summary indicate that the visit rate for black or African-American persons (52.8 visits per 100 persons) was higher than for white persons (26.8 visits per 100

persons) (1). Visits made by patients identified as Asian accounted for 3.0 percent of all physician office visits, and patients who were Native Hawaiian or other Pacific Islander and American Indian or Alaska Native each accounted for about 1 percent of the office visits. Patients who claimed multiple race categories also accounted for 1 percent of office visits.

Continuity of care—Continuity of care is a goal of health care achieved through an interdisciplinary process involving patients, families, health care professionals, and providers in the management of a coordinated plan of care. It may involve multiple professionals from many different disciplines within multiple systems. The NAMCS collects information on aspects of care (e.g., whether the physician was the patient's primary care physician (PCP), whether the visit was a referral, and the number of visits within the past 12 months) that can help describe where the visit fits within the continuum of care for the patient.

In 2002, 50.4 percent of physician office visits were to the patient's PCP; 44.0 percent were to physicians other than the patient's PCP, and at 5.6 percent of visits it was unknown if the physician was the patients PCP (table 4). Visits by new patients were more likely

to be referrals than visits made by established patients (46.3 percent versus 9.3 percent).

Table 5 describes visits to PCPs and non-PCPs in terms of referral status and physician specialty. It should be noted that not all visits to the patient's PCP were to physicians who specialize in primary care. Among visits to the patients' PCP, 5.1 percent were to physicians specializing in either surgical or medical specialties (data not shown). Among visits to non-PCPs, the specialties with visits most frequently referred by other physicians are neurology (55.2 percent), urology (50.9 percent), and orthopedic surgery (45.5 percent). More than one-half of visits to Ob/Gyns, ophthalmologists, dermatologists, and psychiatrists were self referrals.

Table 6 shows the prior visit status, whether the care for the patient was shared by other physicians, and the episode of care. As shown, established patients accounted for 86.7 percent of office visits. Three-quarters of office visits (75.6 percent) were made by established patients who had at least one previous visit in the last 12 months and more specifically, 22.7 percent had six or more visits in the previous 12 months. New patients accounted for 12.1 percent of visits representing an 18% decrease from 1992. Medical and surgical care specialists were more likely to share care with other physicians (28.4 percent and 31.6 percent, respectively) compared with primary care specialists (18.4 percent).

Primary expected source of payment—Private insurance was cited most frequently as the primary expected source of payment (59.0 percent of visits). Government sources combined (Medicare and Medicaid and/or SCHIP accounted for 28.6 percent of office visits, most of which were Medicare (table 7). From 1992 through 2002, private insurance increased 79% (from 32.9 percent to 59.0 percent) and visits with no third-party payer (as defined by self-pay and no charge/charity) decreased by 77% (from 20.7 to 4.7 percent) (data not shown). Primary care specialists saw a significantly greater percent of visits that were paid

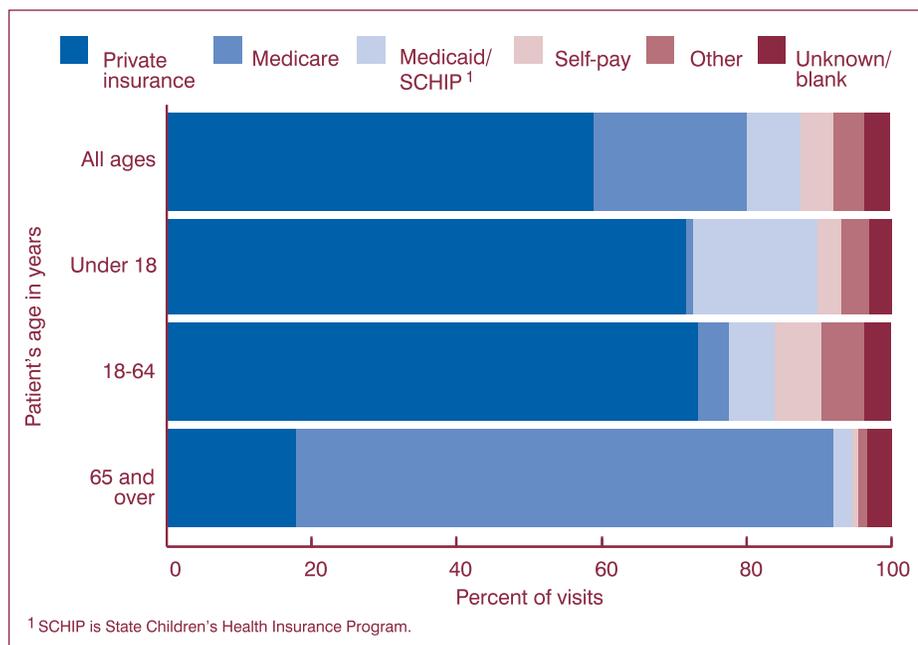


Figure 5. Percent distribution of office visits by primary expected source of payment, according to patient age: United States, 2002

where private insurance (63.3 percent) was the primary expected source of payment than did surgical specialists (52.4 percent) or medical specialists (51.4 percent). Visits that had a primary expected source of payment of either Medicare or Medicaid/SCHIP represented a significantly greater percent of visits to surgical specialists compared with primary care specialists (34.5 percent versus 26.3 percent) (data not shown).

As expected, source of payment varied by patient age (figure 5). Private insurance was the primary expected source of payment at a majority of visits by patients under age 65 years and only represented 17.8 percent of visits by persons 65 years of age and over. Three-quarters of visits by elderly patients listed Medicare as the primary source of payment at office visits (74.2 percent). Private insurance accounted for a larger share of visits in MSAs as opposed to non-MSAs (60.8 versus 48.3 percent, respectively) (data not shown). Medicare and Medicaid accounted for a greater share of visits in non-MSAs as opposed to MSAs (27.5 and 13.4 percent in non-MSAs versus 20.1 and 6.6 percent in MSAs).

Patient's principal reason for visit—The principal reason for visit is the main complaint, symptom, or reason

listed for why the patient came to the physician's office. Up to three reasons for visit were coded according to A *Reason for Visit Classification for Ambulatory Care* (RVC) (6). The RVC is a classification scheme developed by NCHS that has been used for over 20 years to code patients' complaints or reasons for seeking care. It is divided into eight modules or groups of reasons as shown in table 8 and includes all the reasons for which patients see their physicians. This includes symptoms, followup for prior diagnoses, routine examinations and screening, treatment for conditions and operations, various therapies, and injuries. Also included are visits to receive test results and to fulfill third-party requirements for a physical examination, such as for employment or a driver's license. The symptoms module is further divided into symptoms that refer to specific body systems, such as digestive or respiratory. Each reason is assigned a three- or four-digit classification code (e.g., S845- "Symptoms of skin mole" is further detailed to S845.1- "Change in size and color" and S845.2- "Bleeding mole").

In 2002, one-half of all visits were made for reasons classified as symptoms. Some of the more prominent symptoms included respiratory (10.5 percent), musculoskeletal

(10.0 percent), and symptoms referable to the eyes and ears, which accounted for 5.5 percent of all visits (table 8).

The 20 most frequently mentioned principal reasons for visit, representing 42.5 percent of all visits, are shown in table 9. General medical examination was the most frequently mentioned reason for visit at 7.3 percent of all office visits, and cough was the most frequently mentioned reason regarding an illness or injury (3.2 percent). All but two of the reasons for office visits in 2002 were listed in the 20 most frequently mentioned reasons in 2001, albeit in a different order. It should be noted that estimates differing in ranked order may not be significantly different from each other.

The major reason for this visit provides a better picture of the general nature of the office visit—whether for an acute problem; routine visit for a chronic problem; visit for a flare-up of a chronic problem; pre- or post-surgery visit; or for preventive care, including routine prenatal examinations, general medical examinations, well-baby examinations, screening, and examinations for insurance purposes. The major reason for visit item differs from the principal reason for visit item in that the former represents the physician's rather than the patient's perspective of the major reason why the patient sought care. Acute problems comprised 36.4 percent of the visits, and routine chronic problems accounted for 29.7 percent (table 10). Approximately 16.3 percent of all visits were for preventive care. A higher percent of visits by females were for preventive care compared with visits by males. The percent of visits for acute and preventive care declined with patient age, whereas the percent of visits for chronic conditions increased with patient age.

Table 11 describes the frequency of preventive care visits by patient, visit, and physician characteristics. The female visit rate for preventive care was significantly greater than the rate for males (66.9 visits per 100 females versus 34.6 visits per 100 males). These sex differences reflect, in part, the fact that preventive care includes prenatal examinations that usually include

multiple visits within 1 year. In 2002, 18.1 percent of the preventive visits made by females also included a visit made for normal pregnancy (any diagnosis coded V22) (data not shown). However, even after removing visits for normal pregnancy, females still had a higher visit rate (54.8 visits per 100 females) compared with males (34.6 visits per 100 males) (data not shown). There was no difference in visit rates for preventive care by sex among children under 15 years of age or among the elderly (65 years old and over). Uninsured persons (as measured by self-pay and charity visits) had a much lower preventive care visit rate compared with persons with private or public health insurance, placing them at a potential disadvantage for disease prevention and early diagnosis.

Primary diagnosis—Physicians were asked to record the primary diagnosis or problem associated with the patient's most important reason for the current visit and any other significant current diagnoses. Up to three diagnoses were coded according to the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM) (7). [Table 12](#) shows office visits by the physician's primary diagnosis using the major disease categories specified in the ICD-9-CM. The supplementary classification, used for diagnoses that are not classifiable to injury or illness (for example, general medical examination, routine prenatal examination, and health supervision of an infant or child), accounted for 16.4 percent of all office visits. Diseases of the respiratory system (12.6 percent), diseases of the circulatory system (9.0 percent), and diseases of the nervous system and sense organs (8.9 percent) were also prominent categories on the list.

The 20 most frequently reported primary diagnoses for 2002, accounting for 42.8 percent of all physician office visits, are shown in [table 13](#). The categories in this table are also based on the ICD-9-CM. The leading illness diagnoses include essential hypertension, acute upper respiratory infections (excluding pharyngitis), diabetes mellitus, arthropathies and related disorders, and spinal disorders.

Injury-related visits—Although there is a separate item or checkbox on the Patient Record form to indicate whether the visit was for an injury, poisoning, or adverse medical treatment, sometimes an injury reason for visit is specified or an injury diagnosis is rendered without the injury item being checked. Therefore, the visit is counted as an injury visit and the injury checkbox is coded "Yes" if any of the three reasons for visit were in the injury module or any of the three diagnoses were in the injury or poisoning chapter of the ICD-9-CM. This provides a better indicator that the visit involves an injury than using the reason for visit module, ICD-9-CM injury diagnosis, or the unedited injury item alone. A more detailed discussion is documented elsewhere (8).

There were an estimated 104.0 million injury- or poisoning-related office visits in 2002, representing 11.7 percent of all visits and yielding a rate of 36.7 visits per 100 persons ([table 14](#)). The injury-related visit rate increased significantly with patient age. The rate for patients aged 75 years and over (63.3 visits per 100 persons) was approximately double that of the three age groups under 45 years of age. The injury-related visit rate for females was not significantly different from the rate for males nor were there differences between the female and male rates when compared by each of the specific age groups. The overall injury-related visit rate for white persons (39.6 visits per 100 persons) was higher than the injury-related rate for black or African-American persons (25.1 visits per 100 persons) and persons of "other" race (23.6 visits per 100 persons). Small sample sizes preclude analysis by age within some race groups. Half of the injury visits were to primary care specialists (50.5 percent) with no significant difference between white and black or African-American persons (data not shown). Further information on injury visits to physician offices is available on the public-use file, including external cause-of-injury codes (E-codes) and a narrative of the cause of injury.

Office visits by intent and mechanism of the first-listed E-codes

are shown in [table 15](#). Up to three external causes of injury were coded according to the "Supplementary Classification of External Causes of Injury and Poisoning" in the ICD-9-CM (7). Cause of injury was not recorded for 38.0 percent of injury-related visits, so the observed distribution could change with more complete reporting. For a detailed description of the cause-of-injury codes, refer to [table III](#) in the "Technical Notes."

Diagnostic and screening services—[Table 16](#) displays examinations and diagnostic and screening services ordered or provided by physicians during office visits. At least one such service was ordered or provided at 84.9 percent of office visits, resulting in approximately 204 services per 100 visits. Information on diagnostic services was missing for 0.9 percent of visits.

The most frequently occurring diagnostic service was a general medical examination; one-half of all visits (49.7 percent) included a general medical examination. Some of the most frequent laboratory tests ordered included urinalysis (9.6 percent), complete blood count (8.8 percent), and cholesterol (5.2 percent) ([table 16](#)). Imaging was ordered or provided at 10.9 percent of visits; the majority of imaging services were x-rays. Visits by females were more likely to have imaging performed compared with visits by males, a difference due mostly to mammographies. The percent of visits that had any imaging ordered or provided increased significantly from 3.9 percent in 1993 to 4.5 percent in 2002 (data not shown).

Counseling/education and therapeutic services—Therapeutic and preventive services (not including medication therapy, which was reported separately) were ordered or provided at 44.7 percent of all office visits during 2002, resulting in approximately 68 services per 100 visits. The most frequent counseling or education provided at office visits related to diet and/or nutrition (14.3 percent) and exercise (10.0 percent) ([table 17](#)). Females were just as likely as males to have any one of the 10 listed

counseling, education, or therapeutic services ordered or provided at an office visit. Information regarding therapeutic services was missing for 2.1 percent of visits.

Procedures—In item 8 of the Patient Record form, physicians were instructed to record up to two surgical procedures ordered, scheduled, or performed at the visit. Item 6, “Diagnostic and screening services,” included two open-ended “other” categories in addition to the checkbox categories. After analyzing data from the “other” categories and the surgery checkbox (item 8), it was discovered that the same procedure was being recorded in different places on different records. [Table 18](#) presents data from item 8 and the open-ended responses to item 6 as coded to ICD-9-CM volume 3 in the range of 01-86 (7). During 2002, there were an estimated 69.8 million surgical procedures ordered or performed during visits to office-based physicians resulting in approximately 10 surgical procedures per 100 visits. About 9.1 percent of visits had such procedures ordered or performed (up by 72% since 1992) (data not shown). About 45 percent of surgical procedures were performed in the office.

Medication therapy—NAMCS respondents were instructed to record all new or continued medications ordered, supplied, or administered at the visit. This included prescription and nonprescription preparations, immunizations, desensitizing agents, and anesthetics. Up to six medications, referred to in this survey as drug mentions, were coded according to a classification system developed at NCHS. A report describing the method and instruments used to collect and process drug information is available (9). 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. Visits with one or more drug mentions are termed “drug visits” in the NAMCS. Data on medication therapy are in [tables 19-23](#).

Medication therapy was reported at 577.1 million office visits, accounting

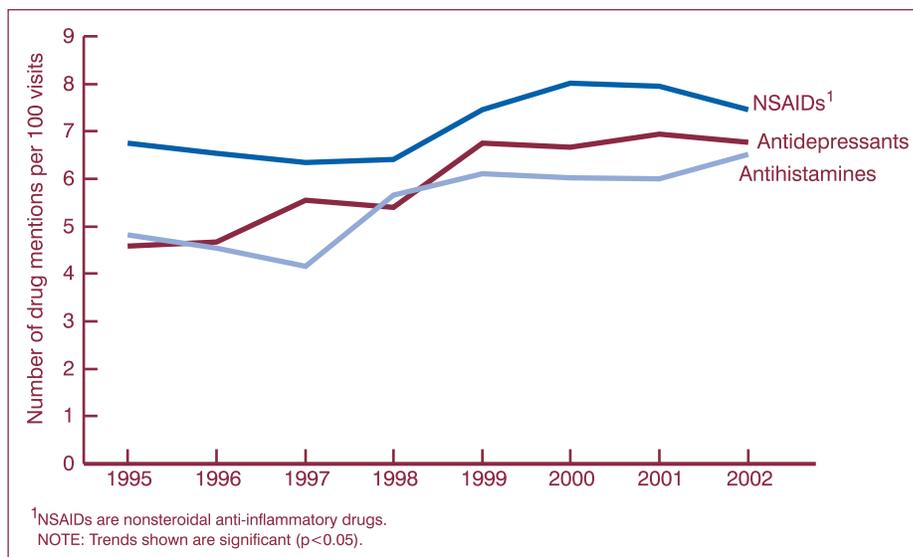


Figure 6. Trends in drug mention rates for NSAIDs, antidepressants, and antihistamines at physician office visits: United States, 1995-2002

for 64.8 percent of all office visits ([table 19](#)). During 2002, there were about 1.3 billion drugs mentioned, resulting in an overall drug mention rate of 151.4 mentions per 100 visits. Data on drug visits and drug mentions by physician specialty are shown in [table 20](#). The percent of visits with at least one drug mention ranged from 82.6 percent for psychiatrists to 28.1 percent for general surgeons. The overall drug mention rate was similar to last year's; however, the drug mention rate for Ob/Gyn physicians increased 48% from 55.5 mentions per 100 visits in 2001 to 82.4 mentions per 100 visits in 2002 (data not shown). Increases in Ob/Gyn drug mention rates were driven by a 24% increase in the percent of visits with any mention of drugs (from 39.6 to 48.9 percent) and a 60% increase in the mention of contraceptives and vitamins. The drug mention rate for other physician specialties was not significantly different from 2002.

[Table 21](#) presents the 20 most frequent therapeutic classes of drug mentions by four-digit therapeutic classification codes used in the *National Drug Code (NDC) Directory*, 1995 edition. Drugs may have more than one therapeutic application, and up to three therapeutic drug classes are recorded for each drug (10). Prior to 2002, a drug was classified under its primary

therapeutic use and data were presented for two-digit therapeutic classification codes. Beginning in 2002, drug data are shown for up to three therapeutic subclassifications at the four-digit level. In 2002, the leading drug subclasses were NSAIDs (4.9 percent), followed by antidepressants (4.5 percent), antihistamines (4.3 percent), antiasthmatics or bronchodilators (4.0 percent), and vaccines or antisera (4.0 percent).

Examining the top three therapeutic drug classes further, [figure 6](#) shows that between 1995 and 2002 the drug mention rates per 100 visits for NSAIDs, antidepressants, and antihistamines have all increased significantly (10%, 48%, and 35%, respectively). Increases in drug mention rates by therapeutic class can be driven by numerous factors including how new drugs are classified by the Food and Drug Administration (FDA) and the level of marketing these drugs receive. For example, increases in NSAIDs are directly attributed to the new subclass of drugs called COX-2 inhibitors. Sales of Celebrex and Vioxx have grown briskly since their approval as priority new molecular entities (NMEs) and from intensive marketing aimed at both consumers and physicians (11). Since 1999, the number of NAMCS drug mentions for Celebrex increased 44% and since 2000 Vioxx mentions

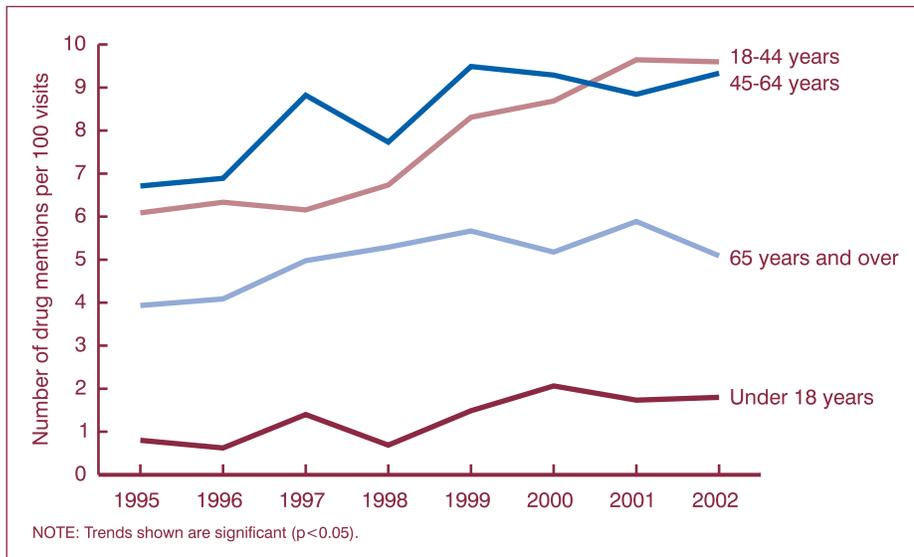


Figure 7. Trends in antidepressant drug mention rates at physician office visits by patient's age: United States, 1995–2002

increased 17%. Direct-to-consumer (DTC) marketing, along with the creation of nonsedating second- and third-generation drugs, represent two major reasons for the rise in the antihistamine mention rate since 1995 (12,13). The leading antihistamine mentioned in 2002 was Zyrtec, which was approved by the FDA in 1996. Other leading antihistamines include Allegra and Claritin.

Many factors have also been attributed to the rise in antidepressant drug mention rates. Figure 7 shows trends from 1995 through 2002 among four age groups: under 18 years, 18–44 years, 45–64 years, and 65 years and over. The rate of visits with antidepressants mentioned significantly increased for all age groups, with visits by younger patients showing the largest rate increase from 1995. For patients under 18 years of age, the number of

mentions per 100 visits increased 124%; for patients aged 18–44 years, the rate increased 57%; the rate increased 39% for patients aged 45–64 years; and increased 29% for seniors aged 65 years of age and over. Observed increases in NAMCS antidepressant mention rates were not surprising given the fact that from 1987 through 1997, more individuals were being treated for depression. Treatments typically involved more psychotropic medications and comparatively less psychotherapy, and physicians became more involved in the treatment of depression versus other mental health professionals (14).

Research has suggested that an increase in antidepressant prescribing has been directly related to the introduction of the new subclass of antidepressants called selective serotonin reuptake inhibitors (SSRIs) (15). Compared with all other classes of antidepressants, SSRIs now represent the preferred class of drugs used by physicians in treating patients with major depression. These drugs are especially attractive alternatives to older, once popular, tricyclic antidepressants (TCAs) because they typically possess fewer adverse side effects, have a reduced risk of suicide-related deaths, involve simpler dosing patterns, and have equivalent antidepressant effectiveness as TCAs (16). Figure 8 demonstrates this increase in SSRIs and decrease of TCAs. Since 1992, SSRIs have increased from 0.7 drug mentions per 100 visits to 4.1 drug mentions per 100 visits in 2002, an increase of approximately 500%. TCAs declined from 1.5 drug mentions per 100 visits in 1992 to 0.8 drug mentions per 100 visits in 2002, a decrease of approximately 47%.

The 20 most frequently used generic substances for 2002 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 both the count for acetaminophen and the count for codeine. Compared with the 19 other generic substances and consistent with previous years, acetaminophen was most frequently used in drugs ordered or provided by the physician at office visits, occurring

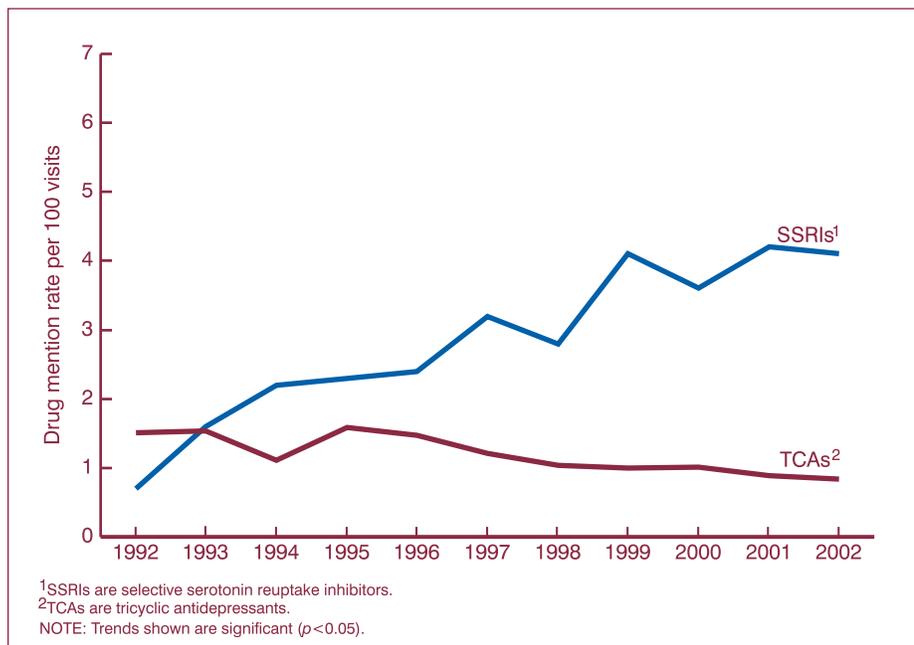


Figure 8. Trends in the drug mention rates for antidepressants by subclass at physician office visits: United States, 1992–2002

in 3.4 percent of drug mentions. This was followed by amoxicillin, hydrochlorothiazide, albuterol, and aspirin.

Table 23 presents the 20 medications most frequently mentioned by physicians in the NAMCS according to the name written on the Patient Record form. This could be a brand name, generic name, or therapeutic effect. Lipitor accounted for 18.8 million mentions (1.4 percent of the total) and was followed by albuterol, amoxicillin, Synthroid, and Lasix. Fifteen of these drugs were among the top 20 drug entry names mentioned in 2001.

Providers seen—In this item, staff were asked to check all of the providers seen during the visit. Overall, 95.1 percent of visits were attended by a physician (table 24). Medical and/or nursing assistants were seen at 27.3 percent of office visits. Midlevel providers, such as physician assistants,

nurse practitioners, and/or midwives, were seen at 3.1 percent of physician office visits.

Visit disposition—Staff were asked to record all visit dispositions and instructed that multiple responses could be coded for this item. For 6 out of 10 visits (60.4 percent), patients were told to return to the office by appointment (table 25). “Return if needed” and “no followup planned” were indicated at 27.4 and 8.5 percent of visits, respectively. Patients were referred to other physicians at 7.3 percent of visits.

Time spent with physician—Data on the duration of office visits are presented in tables 26 and 27. Time spent in face-to-face contact between the physician and the patient is estimated and recorded by the physician. It excludes time spent waiting to see the physician, time spent receiving care from someone other than the physician without the presence of the physician, and time spent by the physician in

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

In 2002, 88.3 percent of office visits with face-to-face contact between the physician and patient had a duration between 6 and 30 minutes (table 26). At 43.8 million visits, or 4.9 percent, there was no face-to-face contact between the physician and patient. Table 27 shows the mean duration for all visits at which a physician was seen as well as the mean duration at each quartile by physician specialty. Overall, the mean time spent with a physician was 18.4 minutes. The visit duration for psychiatrists had the largest variability (a difference of 28.4 minutes between the third and first quartiles).

Visits to primary care specialists—In 2002, the NAMCS sampled an additional 150 primary care specialty physicians in order to provide more analytical power for understanding primary care. Detailed information on the sample and definitions of primary care physicians can be found in the “Technical Notes.” This section highlights visits to primary care specialists.

Visits to primary care specialties accounted for 62.7 percent of the 890 million visits to office-based physicians in 2002 (table 1). Approximately three-fourths of these visits were to the patient’s designated PCP. Approximately 8 percent of visits to primary care specialties were by new patients, and most established patients had seen their physician in the last 12 months (79.5 percent) (table 6). The percent of visits made to primary care specialists where the patient was responsible for the payment was significantly less than at visits made to medical specialists (3.8 percent versus 8.0 percent) (Data not shown). The role of preventive care in primary care specialists can be seen from the last two columns in table 11. Approximately 9 out of 10 preventive care visits were to primary care specialists; however, receipt of preventive care from primary care specialists decreases with age.

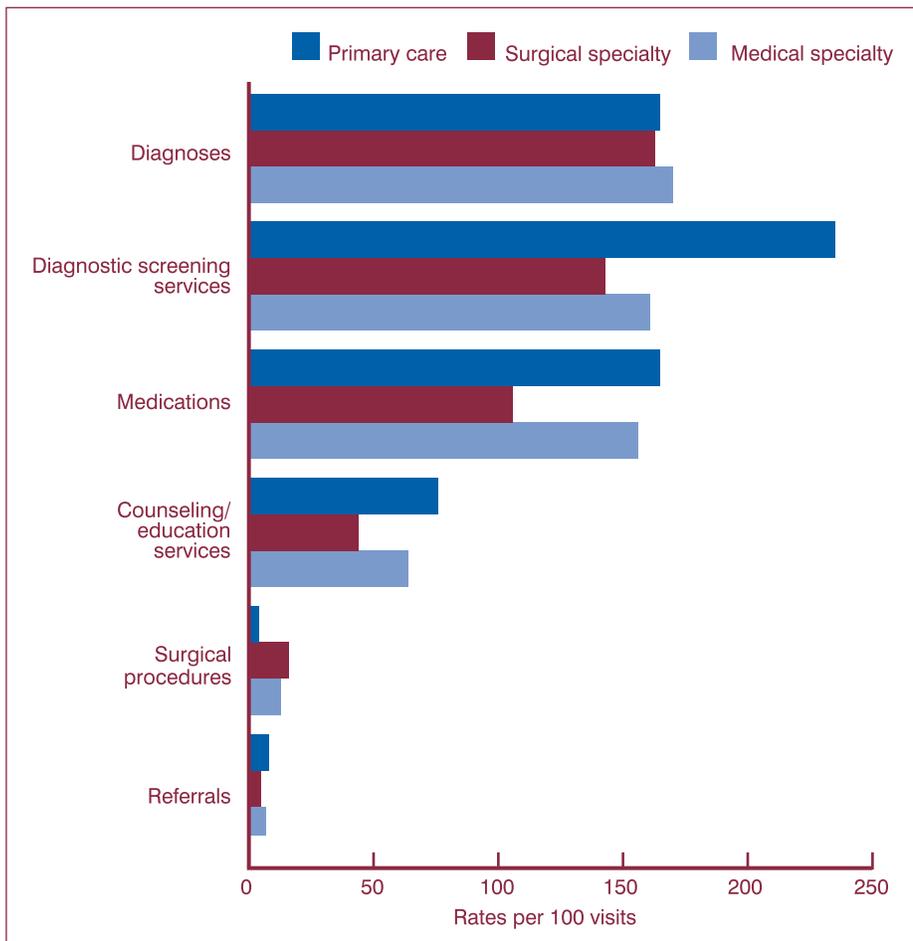


Figure 9. Characteristics of visits to office-based physicians, by specialty: United States, 2002

Characteristics of visits to primary care specialists:

- Accounted for 62.7 percent of all visits in 2002, with 75 percent to the patient's designated primary care provider.
- Major reason for visit to primary care specialists:
 - Acute conditions—41.5 percent
 - Chronic conditions—29.6 percent
 - Preventive care—23.3 percent
- Top five illness-related diagnoses are:
 - Hypertension—7.8 percent
 - Acute upper respiratory infections (excluding pharyngitis)—5.1 percent
 - Diabetes mellitus—3.1 percent
 - Otitis media—2.4 percent
 - Arthropathies—2.1 percent
- Injury visits accounted for 9.4 percent of all visits to primary care specialists.
- Common services ordered or provided:
 - General medical examination—60.8 percent
 - Blood pressure check—60.1 percent
 - Urinalysis—12.8 percent
 - Complete blood count (CBC)—10.9 percent
 - Diet/nutrition counseling—19.3 percent
 - Exercise counseling—12.2 percent
- Top therapeutic drug classes were:
 - Vaccines/antisera—5.7 percent of drug mentions
 - NSAIDs—5.5 percent of drug mentions
 - Antihistamines—4.8 percent of drug mentions
 - Antidepressants—4.0 percent of drug mentions
 - Antihypertensives—3.9 percent of drug mentions
 - Antiasthmatics—3.8 percent of drug mentions
- Disposition of visit:
 - Return for an appointment—53.4 percent
 - Return if needed—33.4 percent
 - Referred to another physician—8.0 percent
- Average face-to-face duration—17.4 minutes.

by physician specialty. Although primary care specialists indicated that they checked the patient's blood pressure at three-fifths of visits, medical specialists reported blood pressure checks at two-fifths of visits, and surgical specialists performed such checks at one-fifth of visits (data not shown).

Drugs were prescribed at 70.6 percent of the visits to primary care physicians. The leading therapeutic classes prescribed include vaccines (5.7 percent of drug mentions), NSAIDs (5.5 percent), antihistamines (4.8 percent), antidepressants (4.0 percent), antihypertensives (3.9 percent), and antiasthmatics (3.8 percent).

Patients at primary care visits were told to return for an appointment at 53.4 percent of visits, told to return if needed at 33.4 percent of visits, and referred to another physician at 8.0 percent of visits. The average duration of primary care visits was 17.4 minutes.

Physician-level estimates

The NAMCS provides information on characteristics of physician offices as well as information about the frequency of office visits, the characteristics of patients, diagnoses rendered, and services provided at the visit. In the Physician Induction Interview (PII), participating physicians were asked several questions about their practice such as other kinds of patient encounters (e.g., telephone, e-mail), involvement with managed care contracts, and willingness to accept new patients. The data were weighted to provide annual estimates for all non-Federal, office-based physicians primarily engaged in patient care. Table 28 provides national estimates for office-based physicians in 2002. There were an estimated 308,023 office-based physicians in practice in any given week in the United States (SE=8,149). This estimate excludes physicians in the specialties of radiology, anesthesiology, or pathology. One-half of these physicians (50.2 percent) were in primary care specialties, 25.5 percent were in surgical specialties, and 24.3 percent in medical specialties.

Although similar to the visit level data shown in table 1, table 28 shows

Figure 9 summarizes characteristics of office visits by physician specialty type and contrasts primary care with surgical and medical specialties. Primary care specialists managed 165 problems per 100 visits. They ordered or provided 235 diagnostic and screening services, 165 medications, 76 counseling/education services, and 5 surgical procedures per 100 visits. Acute conditions accounted for 41.5 percent of visits to primary care specialties followed by 29.6 percent for chronic conditions and 23.3 percent for preventive care (see textbox).

The leading illness-related primary diagnoses at primary care specialty visits included essential hypertension

(7.8 percent), acute upper respiratory infection (excluding pharyngitis) (5.1 percent), diabetes mellitus (3.1 percent), otitis media (2.4 percent), and arthropathies (2.1 percent). Normal pregnancy visits accounted for 3.1 percent of primary diagnoses at these visits.

About 1 in 10 visits were for an injury. Six of ten visits to primary care specialists (60.8 percent) had a general medical examination, a significantly higher percentage than for visits to surgical specialists (23.4 percent) and medical specialists (39.8 percent). Overall, a blood pressure check occurred at 48.1 percent of all visits (table 16); however, blood pressure checks varied

that about one-third of the physicians were in solo practices with the remaining in either single- or multispecialty-group practices (41.0 and 24.7 percent, respectively). The majority of physicians were the owners or part owners of their practices (72.7 percent). Primary care specialists were employees a greater percent of the time compared with surgical or medical specialists (28.2 percent versus 16.2 and 17.0 percent, respectively).

Another practice characteristic collected in the PII is the number of encounters the physician makes during his/her last full week of practice. These include: office visits, home visits, hospital visits, telephone consultations, and internet/e-mail consultations.

Table 28 presents the percent of physicians who had at least one of each of the various encounters during their last full week of practice and, for those physicians with at least one, the mean number for each of the encounters. For example, 19.1 percent of primary care specialists reported having at least one home visit during their last full week of practice. Of these physicians the mean number of reported home visits was 11.7. Primary care specialists reported more telephone contacts (26.3) than surgical specialists (11.5) or medical specialists (15.7). Medical specialists made more hospital visits (34.1) than did surgical (17.6) or primary care specialists (17.0). Not shown in table 28 is the mean number of each of the weekly encounters for all physicians: 77 office visits, 14 hospital visits, 14 telephone contacts, 1.3 house calls, and 0.4 internet/e-mail consults.

The NAMCS PII asks physicians about their willingness to accept new patients. Ninety-five percent of the physicians said they would accept new patients, (table 28). Figure 10 shows the percent of physicians who said they would not accept new patients by payment source. Approximately 37.7 percent of office-based physicians did not accept new charity cases (as defined by the no charge check box), 23.5 percent did not accept new Medicaid cases, and 13.8 percent did not accept new Medicare cases. Primary care specialists were more likely to refuse new Medicare cases

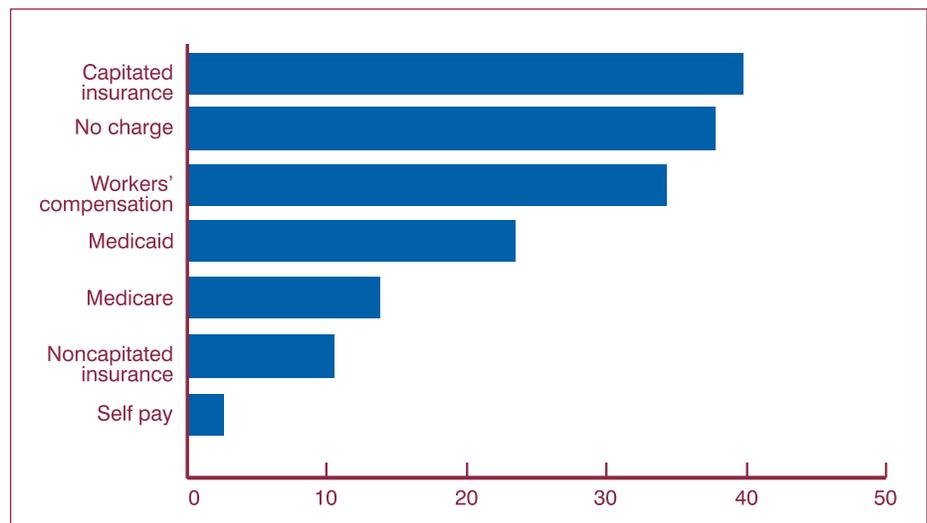


Figure 10. Percent of office-based physicians who do not accept new patients who use selected payment methods: United States, 2002

(21.1 percent) compared with either surgical specialists (2.0 percent) or medical specialists (12.0 percent) and more likely to refuse Medicaid cases (25.8 percent) compared with surgical specialists (17.6 percent) (data not shown).

A greater percent of physician practices used electronic billing records than electronic medical records (74.4 percent versus 17.3 percent) due to the requirement by Medicare and Medicaid.

Additional information about physician office utilization is available from the NCHS Ambulatory Health Care Web site:

<http://www.cdc.gov/nchs/about/major/ahcd/ahcd1.htm>. Individual-year reports and public-use data files are available for download from the Web site. Data from the 2002 NAMCS will also be available on a public-use data tape and CD-ROM. These and other products can be obtained by contacting the NCHS Ambulatory Care Statistics Branch at (301) 458-4600. Queries regarding NAMCS data may be sent to NCHS via nchsquery@cdc.gov.

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Table 1. Number, percent distribution, and annual rate of office visits with corresponding standard errors, by selected physician practice characteristics: United States, 2002

Physician practice characteristics	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent	Number of visits per 100 persons per year ^{1,2}	Standard error of rate
All visits	889,980	28,110	100.0	...	314.4	9.9
Physician specialty						
General and family practice	215,466	13,117	24.2	1.2	76.1	4.6
Internal medicine	156,692	14,734	17.6	1.4	55.4	5.2
Pediatrics	120,018	8,213	13.5	0.9	³ 198.1	13.6
Obstetrics and gynecology	70,324	6,410	7.9	0.7	⁴ 60.9	5.6
Ophthalmology	49,937	5,568	5.6	0.6	17.6	2.0
Orthopedic surgery	38,028	5,027	4.3	0.6	13.4	1.8
Dermatology	32,227	3,819	3.6	0.4	11.4	1.3
Psychiatry	21,659	2,979	2.4	0.3	7.7	1.1
Cardiovascular diseases	20,822	2,554	2.3	0.3	7.4	0.9
Urology	17,133	1,891	1.9	0.2	6.1	0.7
Otolaryngology	17,080	1,954	1.9	0.2	6.0	0.7
General surgery	17,000	2,154	1.9	0.2	6.0	0.8
Neurology	9,622	900	1.1	0.1	3.4	0.3
All other specialties	103,974	9,200	11.7	1.0	36.7	3.2
Professional identity						
Doctor of medicine	824,595	27,653	92.7	0.7	291.3	9.8
Doctor of osteopathy	65,385	6,636	7.3	0.7	23.1	2.3
Specialty type ⁵						
Primary care	558,402	22,198	62.7	1.3	197.3	7.8
Surgical	177,397	10,576	19.9	1.0	62.7	3.7
Medical	154,181	10,895	17.3	1.2	54.5	3.8
Geographic region						
Northeast	205,668	14,023	23.1	1.4	385.2	26.3
Midwest	196,749	11,632	22.1	1.2	307.0	18.1
South	300,665	19,173	33.8	1.6	297.7	19.0
West	186,898	9,744	21.0	1.1	289.4	15.1
Metropolitan status						
MSA ⁶	765,191	27,191	86.0	1.5	338.4	12.0
Non-MSA ⁶	124,790	13,689	14.0	1.5	222.6	24.4

... Category not applicable.

¹Visit rates for age, sex, race, and region are based on the July 1, 2002, set of estimates of the civilian noninstitutional population of the United States as developed by the Population Division, U.S. Census Bureau. These population estimates reflect Census 2000 data and are available from the U.S. Census Bureau. See the "Technical Notes" for more details.

²2002 population estimates of metropolitan statistical area status are based on Census 2000 data and were obtained through the Office of Research and Methodology and Division of Health Interview Statistics, National Center for Health Statistics.

³The population used for the rate is based on visits by children under 15 years of age.

⁴The population used for the rate is based on visits by females 15 years old and over.

⁵Specialty type is defined in table IV of the "Technical Notes."

⁶MSA is metropolitan statistical area.

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

Table 2. Number and percent distribution of office visits with corresponding standard errors, by selected physician practice characteristics: United States, 2002

Physician office characteristics	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits	889,980	28,110	100.0	...
Employment status				
Owner	664,121	29,206	74.6	1.9
Employee	189,987	16,404	21.3	1.8
Contractor	35,873	6,758	4.0	0.8
Ownership				
Physician/group	767,468	27,423	86.2	1.6
Other health care corporation	42,497	7,606	4.8	0.8
Other hospital	33,188	6,504	3.7	0.7
Medical/academic health center	*19,794	6,632	*2.2	0.7
HMO ¹	14,885	4,024	1.7	0.5
Other ²	12,149	3,566	1.4	0.4
Practice size				
Solo	313,795	20,044	35.3	1.9
2-4	290,632	18,256	32.7	1.8
5-9	180,825	15,433	20.3	1.5
10-39	80,796	10,825	9.1	1.2
40 or more	*19,505	6,579	*2.2	0.7
Blank	*4,428	1,833	*0.5	0.2
Type of practice				
Single-specialty group	366,676	19,869	41.2	2.0
Multispecialty group	209,510	18,294	23.5	1.8
Solo	313,795	20,044	35.3	1.9
Office type				
Private practice	817,154	28,662	91.8	1.2
Clinic/urgicenter	46,380	9,827	5.2	1.1
Other ³	26,447	4,739	3.0	0.5

... Category not applicable.

* Figure does not meet standard of reliability or precision.

¹HMO is health maintenance organization.

²Other includes owners such as local government (State, county, or city) and charitable organizations.

³Other includes the following office types: HMO, non-Federal government clinic, mental health center, federally qualified health center, and facility practice plan.

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

Table 3. Number, percent distribution, and annual rate of office visits with corresponding standard errors, by patient's age, sex, and race: United States, 2002

Patient's age, sex, and race	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent	Number of visits per 100 persons per year ¹	Standard error of rate
All visits	889,980	28,110	100.0	...	314.4	9.9
Age						
Under 15 years	159,235	8,449	17.9	0.8	262.8	13.9
15-24 years	71,865	3,605	8.1	0.4	181.9	9.1
25-44 years	192,359	7,978	21.6	0.6	232.2	9.6
45-64 years	242,142	9,915	27.2	0.6	365.8	15.0
65-74 years	109,331	5,361	12.3	0.4	606.4	29.7
75 years and over	115,049	6,066	12.9	0.5	722.2	38.1
Sex and age						
Female	529,075	17,025	59.4	0.6	364.9	11.7
Under 15 years	76,382	4,287	8.6	0.4	258.1	14.5
15-24 years	44,909	2,494	5.0	0.3	228.8	12.7
25-44 years	128,743	5,836	14.5	0.5	306.3	13.9
45-64 years	144,205	6,164	16.2	0.4	422.7	18.1
65-74 years	61,819	3,254	6.9	0.3	628.1	33.1
75 years and over	73,017	4,305	8.2	0.4	745.7	44.0
Male	360,905	13,295	40.6	0.6	261.4	9.6
Under 15 years	82,853	4,556	9.3	0.5	267.2	14.7
15-24 years	26,956	1,989	3.0	0.2	135.6	10.0
25-44 years	63,616	3,650	7.1	0.3	155.9	8.9
45-64 years	97,937	4,811	11.0	0.4	305.3	15.0
65-74 years	47,512	2,686	5.3	0.2	580.2	32.8
75 years and over	42,032	2,353	4.7	0.2	684.6	38.3
Race and age ²						
White	766,096	26,574	86.1	1.0	334.6	11.6
Under 15 years	131,023	7,208	14.7	0.7	282.9	15.6
15-24 years	61,012	3,297	6.9	0.3	197.5	10.7
25-44 years	164,890	7,534	18.5	0.6	248.3	11.3
45-64 years	211,162	9,145	23.7	0.6	380.7	16.5
65-74 years	95,465	5,311	10.7	0.5	611.4	34.0
75 years and over	102,544	5,504	11.5	0.5	720.1	38.7
Black or African American	89,455	8,108	10.1	0.9	252.9	22.9
Under 15 years	19,867	2,695	2.2	0.3	209.4	28.4
15-24 years	8,071	985	0.9	0.1	142.0	17.3
25-44 years	18,750	1,862	2.1	0.2	181.2	18.0
45-64 years	22,496	2,592	2.5	0.3	319.2	36.8
65-74 years	10,733	2,659	1.2	0.3	658.8	163.2
75 years and over	9,538	2,595	1.1	0.3	811.7	220.8
All other races ²						
Asian	26,341	3,851	3.0	0.4	229.3	33.5
Native Hawaiian or other Pacific Islander	3,430	708	0.4	0.1	721.7	148.9
American Indian or Alaska Native	2,237	473	0.3	0.1	82.9	17.5
Multiple races	*2,421	749	*0.3	0.1	*58.6	18.1

... Category not applicable.

*Figure does not meet standard of reliability or precision.

¹Visit rates for age, sex, and race are based on the July 1, 2002, set of estimates of the civilian noninstitutional population of the United States as developed by the Population Division, U.S. Census Bureau. These population estimates reflect Census 2000 data and are available from the U.S. Census Bureau. See "Technical Notes" for more details.

²The race groups, white, black or African American, Asian, Native Hawaiian or other Pacific Islander, American Indian or Alaska Native, and multiple races, include persons of Hispanic and not Hispanic origin. Persons of Hispanic origin may be of any race. Starting with data year 1999, race-specific estimates have been tabulated according to 1997 Standards for Federal Data on Race and Ethnicity and are not strictly comparable with estimates for earlier years. However, the percent of visit records with multiple races indicated is small and lower than what is typically found for self-reported race. See "Technical Notes" for more details.

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

Table 4. Number and percent distribution of office visits with corresponding standard errors, by selected visit characteristics, according to prior-visit status: United States, 2002

Primary care physician and referral status	All visits	Prior-visit status		
		Established patient	New patient	Unknown/blank
Number of visits in thousands				
All visits	889,980	771,679	108,049	10,252
Visit to PCP ¹	448,679	427,647	19,030	2,002
Visit to non-PCP ¹	391,742	308,530	81,124	2,089
Referred by other physician	122,011	71,517	50,070	424
Not referred by other physician	212,410	189,294	22,330	786
Unknown if referred	57,320	47,718	8,724	*879
Unknown if PCP ¹ visit	49,559	35,503	7,895	*6,161
Standard error in thousands				
All visits	28,110	24,906	5,929	2,965
Visit to PCP ¹	20,737	19,745	1,898	415
Visit to non-PCP ¹	17,135	13,771	5,289	509
Referred by other physician	7,312	4,710	3,452	108
Not referred by other physician	12,968	11,290	3,289	202
Unknown if referred	5,989	5,606	1,104	392
Unknown if PCP ¹ visit	7,547	5,931	1,299	2,893
Percent distribution				
All visits	100.0	100.0	100.0	100.0
Visit to PCP ¹	50.4	55.4	17.6	*19.5
Visit to non-PCP ¹	44.0	40.0	75.1	*20.4
Referred by other physician	13.7	9.3	46.3	*4.1
Not referred by other physician	23.9	24.5	20.7	*7.7
Unknown if referred	6.4	6.2	8.1	*8.6
Unknown if PCP ¹ visit	5.6	4.6	7.3	60.1
Standard error of percent				
All visits . . . . .	...	...	...	...
Visit to PCP ¹	1.5	1.5	1.6	6.6
Visit to non-PCP ¹	1.5	1.5	2.0	7.0
Referred by other physician	0.7	0.6	2.4	1.5
Not referred by other physician	1.3	1.3	2.5	2.8
Unknown if referred	0.7	0.7	0.9	4.2
Unknown if PCP ¹ visit	0.8	0.8	1.2	11.8

* Figure does not meet standard of reliability or precision.

... Category not applicable.

¹PCP is patient's primary care physician or provider.

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

Table 5. Percent distribution of office visits with corresponding standard errors by physician specialty, according to primary care physician and referral status: United States 2002

Physician specialty	Total	Visit to PCP ¹	Visit to non-PCP ²			
			Referred by other physician	Not referred by other physician	Unknown if referred	Unknown if PCP ¹ visit
Percent distribution						
All visits	100.0	50.4	13.7	23.9	6.4	5.6
General and family practice	100.0	84.1	*2.8	6.5	1.2	5.5
Internal medicine	100.0	82.3	2.9	*6.0	*1.9	*7.0
Pediatrics	100.0	88.2	2.0	5.5	2.5	1.9
Obstetrics and gynecology	100.0	15.3	10.0	54.0	6.5	14.1
Ophthalmology	100.0	*2.0	20.7	61.7	11.9	*3.7
Orthopedic surgery	100.0	*5.3	45.5	36.9	9.8	*
Dermatology	100.0	*	18.9	58.7	18.6	*3.7
Cardiovascular diseases	100.0	*	15.9	64.6	14.3	*4.7
Psychiatry	100.0	13.4	40.2	40.6	4.9	*
General surgery	100.0	*8.1	41.0	40.2	9.0	*
Otolaryngology	100.0	*	39.8	42.4	13.9	3.3
Urology	100.0	*3.8	50.9	33.9	10.2	*
Neurology	100.0	*2.6	55.2	29.6	10.3	2.2
All other specialties	100.0	13.1	27.7	34.2	17.1	*7.9
Standard error of percent						
All visits . . . . .	...	1.5	0.7	1.3	0.7	0.8
General and family practice . . . . .	...	2.2	0.9	1.4	0.3	1.1
Internal medicine . . . . .	...	3.8	0.8	2.2	1.0	2.5
Pediatrics . . . . .	...	1.8	0.6	1.3	0.7	0.4
Obstetrics and gynecology . . . . .	...	3.3	2.2	5.1	1.9	3.7
Ophthalmology . . . . .	...	1.0	4.1	5.0	2.8	1.8
Orthopedic surgery . . . . .	...	2.0	5.1	4.9	2.2	...
Dermatology . . . . .	...	...	3.1	5.4	5.0	1.8
Cardiovascular diseases . . . . .	...	...	4.3	6.0	3.6	1.7
Psychiatry . . . . .	...	4.0	5.8	5.6	1.0	...
General surgery . . . . .	...	3.0	5.1	4.6	2.2	...
Otolaryngology . . . . .	...	...	3.9	4.5	2.7	1.0
Urology . . . . .	...	2.6	4.5	4.4	3.0	...
Neurology . . . . .	...	0.9	3.8	3.6	2.5	0.5
All other specialties . . . . .	...	3.1	3.8	4.2	4.2	3.9

* Figure does not meet standard of reliability or precision.

... Category not applicable.

¹PCP is patient's primary care physician or provider.²Referral status only asked for visits to nonprimary care physicians or providers.

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

Table 6. Number and percent distribution of office visits with corresponding standard errors, by continuity-of-care visit characteristics according to specialty type: United States, 2002

Continuity-of-care visit characteristics	Specialty type				Specialty type			
	All specialties	Primary care	Surgical	Medical	All specialties	Primary care	Surgical	Medical
	Number of visits in thousands				Standard error in thousands			
All visits	889,980	558,402	177,397	154,181	28,110	22,198	10,576	10,895
Prior-visit status and number of visits in last 12 months								
Established patient.	771,679	508,721	139,308	123,651	24,906	20,557	8,546	9,262
None	56,080	33,204	13,640	9,236	3,797	3,225	1,320	1,103
1–2 visits	245,048	151,762	57,049	36,237	10,461	8,043	3,958	3,510
3–5 visits	225,822	155,650	37,519	32,654	9,944	8,643	2,781	3,232
6 or more visits	201,998	136,529	24,844	40,625	10,909	8,578	2,356	5,939
Unknown	42,731	31,576	6,255	*4,898	5,138	4,672	1,197	1,695
New patient	108,049	42,481	36,507	29,061	5,929	3,940	2,882	2,795
Unknown if patient previously seen.	10,252	*7,200	1,582	1,470	2,965	2,926	278	404
Do other physicians share care for this problem?								
Yes	202,393	102,662	55,996	43,736	11,317	8,019	5,298	4,721
No	570,326	384,892	104,432	81,002	22,255	18,556	7,939	8,133
Unknown/blank	117,261	70,848	16,969	29,444	12,155	9,626	2,106	6,778
Episode of care								
Initial visit for problem.	273,910	189,092	47,167	37,651	10,771	9,294	3,384	3,494
Followup visits for problem.	401,767	196,012	103,529	102,227	17,117	12,353	6,580	8,131
Unknown/blank	69,452	43,046	17,384	9,022	5,318	4,491	2,237	1,196
Not applicable (preventive care visit) ¹	144,851	130,253	9,316	5,282	8,045	7,988	1,254	1,056
	Percent distribution				Standard error of percent			
All visits	100.0	100.0	100.0	100.0	...	...	...	...
Prior-visit status and number of visits in last 12 months								
Established patient.	86.7	91.1	78.5	80.2	0.6	0.8	1.1	1.4
None	6.3	5.9	7.7	6.0	0.4	0.6	0.6	0.6
1–2 visits	27.5	27.2	32.2	23.5	0.8	1.0	1.0	1.7
3–5 visits	25.4	27.9	21.1	21.2	0.7	0.9	0.9	1.6
6 or more visits	22.7	24.4	14.0	26.3	1.0	1.2	1.1	3.0
Unknown	4.8	5.7	3.5	*3.2	0.6	0.8	0.7	1.1
New patient	12.1	7.6	20.6	18.8	0.5	0.6	1.1	1.4
Unknown if patient previously seen.	1.2	*1.3	0.9	1.0	0.3	0.5	0.2	0.3
Do other physicians share care for this problem?								
Yes	22.7	18.4	31.6	28.4	1.1	1.3	2.4	2.8
No	64.1	68.9	58.9	52.5	1.4	1.8	2.5	3.8
Unknown/blank	13.2	12.7	9.6	19.1	1.3	1.6	1.1	4.0
Episode of care								
Initial visit for problem.	30.8	33.9	26.6	24.4	0.7	1.1	1.1	1.6
Followup visits for problem.	45.1	35.1	58.4	66.3	1.1	1.5	1.4	1.8
Unknown/blank	7.8	7.7	9.8	5.9	0.6	0.8	1.1	0.7
Not applicable (preventive care visit) ¹	16.3	23.3	5.3	3.4	0.8	1.1	0.6	0.6

... Category not applicable.

* Figure does not meet standard of reliability or precision.

¹ Preventive care includes routine prenatal, general medical, well-baby, and screening or insurance examinations.

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

Table 7. Number and percent distribution of office visits with corresponding standard errors, by primary expected source of payment: United States, 2002

Primary expected source of payment	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits	889,980	28,110	100.0	...
Private insurance	525,520	19,927	59.0	1.1
Medicare	188,207	9,642	21.1	0.8
Medicaid/SCHIP ¹	67,110	5,168	7.5	0.6
Self-pay	39,526	4,111	4.4	0.4
Workers' compensation	14,658	2,561	1.6	0.3
No charge/charity	2,485	526	0.3	0.1
Other	21,456	4,258	2.4	0.5
Unknown/blank	31,018	4,254	3.5	0.5

... Category not applicable.

¹SCHIP is State Children's Health Insurance Program.

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

Table 8. Number and percent distribution of office visits with corresponding standard errors, by patient's principal reason for visit: United States, 2002

Principal reason for visit and RVC code ¹	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent	
All visits	889,980	28,110	100.0	...	
Symptom module	S001-S999	452,280	16,678	50.8	1.0
General symptoms	S001-S099	58,080	4,831	6.5	0.5
Symptoms referable to psychological/mental disorders	S100-S199	26,279	2,009	3.0	0.2
Symptoms referable to the nervous system (excluding sense organs)	S200-S259	22,687	1,496	2.5	0.1
Symptoms referable to the cardiovascular/lymphatic system	S260-S299	4,476	661	0.5	0.1
Symptoms referable to the eyes and ears	S300-S399	48,703	3,311	5.5	0.3
Symptoms referable to the respiratory system	S400-S499	93,529	5,654	10.5	0.5
Symptoms referable to the digestive systems	S500-S639	35,136	2,354	3.9	0.2
Symptoms referable to the genitourinary system	S640-S829	30,769	1,797	3.5	0.2
Symptoms referable to the skin, hair, and nails	S830-S899	43,690	3,000	4.9	0.3
Symptoms referable to the musculoskeletal system	S900-S999	88,933	6,360	10.0	0.6
Disease module	D001-D999	100,526	5,838	11.3	0.6
Diagnostic/screening and preventive module	X100-X599	164,643	8,994	18.5	0.8
Treatment module	T100-T899	112,807	8,930	12.7	0.9
Injuries and adverse effects module	J001-J999	22,445	1,788	2.5	0.2
Test results module	R100-R700	22,078	2,106	2.5	0.2
Administrative module	A100-A140	6,845	1,395	0.8	0.2
Other ²	U990-U999	8,357	1,147	0.9	0.1

... Category not applicable.

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

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

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

Table 9. Number and percent distribution of office visits with corresponding standard errors, by the 20 principal reasons for visit most frequently mentioned by patients, according to patient's sex: United States, 2002

Principal reason for visit and RVC code ¹	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent	Patient's sex			
					Female ²		Male ³	
					Percent distribution	Standard error of percent	Percent distribution	Standard error of percent
All visits	889,980	28,110	100.0	...	100.0	...	100.0	...
General medical examination X100	64,726	4,667	7.3	0.4	6.8	0.5	7.9	0.5
Progress visit, not otherwise specified T800	40,983	5,414	4.6	0.6	3.9	0.5	5.6	0.7
Cough S440	28,469	2,086	3.2	0.2	3.1	0.2	3.4	0.3
Postoperative visit T205	22,083	1,648	2.5	0.2	2.4	0.2	2.6	0.2
Prenatal examination, routine X205	19,582	2,552	2.2	0.3	3.7	0.5	...	...
Symptoms referable to throat S455	18,515	1,535	2.1	0.2	2.2	0.2	2.0	0.2
Hypertension D510	17,195	2,315	1.9	0.3	2.0	0.4	1.8	0.2
Knee symptoms S925	14,803	1,611	1.7	0.2	1.7	0.2	1.7	0.2
Well baby examination X105	14,293	1,440	1.6	0.2	1.4	0.2	1.9	0.2
Medication, other and unspecified kinds T115	14,076	1,638	1.6	0.2	1.6	0.2	1.6	0.2
Stomach pain, cramps, and spasms S545	13,547	1,406	1.5	0.2	1.7	0.2	1.2	0.2
Earache, or ear infection S355	13,160	1,127	1.5	0.1	1.4	0.1	1.5	0.2
Back symptoms S905	12,902	1,298	1.4	0.1	1.4	0.1	1.6	0.2
Vision dysfunctions S305	12,897	1,663	1.4	0.2	1.4	0.2	1.5	0.2
Blood pressure test X320	12,630	2,096	1.4	0.2	1.5	0.3	1.3	0.2
Fever S010	12,258	1,248	1.4	0.1	1.2	0.1	1.7	0.2
Nasal congestion S400	12,149	1,570	1.4	0.2	1.2	0.2	1.5	0.2
Skin rash S860	11,887	1,061	1.3	0.1	1.2	0.1	1.6	0.2
Chest pain and related symptoms (not referable to body system) S050	*11,189	3,546	*1.3	0.4	*1.4	0.5	1.1	0.3
Diabetes mellitus D205	11,189	1,378	1.3	0.1	1.0	0.1	1.6	0.2
All other reasons	511,446	17,420	57.5	0.8	57.8	0.9	57.0	1.0

... Category not applicable.

*Figure does not meet standard of reliability or precision.

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

²Based on 529,075,000 visits made by females.

³Based on 360,905,000 visits made by males.

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

Table 10. Number and percent distribution of office visits with corresponding standard errors by major reason for this visit, according to patient's age, sex, and race: United States, 2002

Patient's age, sex, and race	Total	Major reason for visit					
		Acute problem	Chronic problem, routine	Chronic problem, flare-up	Pre- or post-surgery	Preventive care ¹	Unknown/blank
Number of visits in thousands							
All visits	889,980	323,541	264,452	76,383	46,153	144,851	34,601
Age							
Under 15 years	159,235	82,771	17,133	7,758	2,552	43,557	5,463
15–24 years	71,865	32,191	13,004	4,906	2,957	15,872	2,934
25–44 years	192,359	71,598	46,366	16,383	10,606	39,865	7,541
45–64 years	242,142	77,842	88,022	25,908	13,211	27,316	9,844
65–74 years	109,331	27,665	47,987	10,702	7,636	10,642	4,698
75 years and over	115,049	31,474	51,941	10,726	9,191	7,598	4,120
Sex							
Female	529,075	185,407	153,009	46,087	27,177	97,008	20,387
Male	360,905	138,134	111,443	30,296	18,976	47,843	14,214
Race ²							
White	766,096	280,834	226,296	68,513	41,432	120,074	28,947
Black	89,455	31,165	27,961	5,358	3,763	17,502	3,706
Other	34,429	11,542	10,194	2,512	958	7,275	*1,948
Standard error in thousands							
All visits	28,110	12,089	13,424	5,720	3,107	8,045	5,092
Age							
Under 15 years	8,449	5,541	2,165	983	411	3,208	1,143
15–24 years	3,605	1,960	1,700	701	408	1,664	683
25–44 years	7,978	3,885	3,077	1,571	878	3,414	1,252
45–64 years	9,915	3,664	5,037	2,507	1,106	2,446	1,699
65–74 years	5,361	1,793	3,215	1,078	812	1,586	1,095
75 years and over	6,066	2,078	3,957	1,009	1,034	1,084	821
Sex							
Female	17,025	7,240	8,723	3,552	1,893	5,879	3,424
Male	13,295	5,921	5,822	2,701	1,547	3,601	1,989
Race ²							
White	26,574	11,155	11,925	5,403	2,895	7,096	4,476
Black	8,108	2,819	4,503	729	459	2,450	923
Other	4,926	1,267	2,450	502	202	1,575	633
Percent distribution							
All visits	100.0	36.4	29.7	8.6	5.2	16.3	3.9
Age							
Under 15 years	100.0	52.0	10.8	4.9	1.6	27.4	3.4
15–24 years	100.0	44.8	18.1	6.8	4.1	22.1	4.1
25–44 years	100.0	37.2	24.1	8.5	5.5	20.7	3.9
45–64 years	100.0	32.1	36.4	10.7	5.5	11.3	4.1
65–74 years	100.0	25.3	43.9	9.8	7.0	9.7	4.3
75 years and over	100.0	27.4	45.1	9.3	8.0	6.6	3.6
Sex							
Female	100.0	35.0	28.9	8.7	5.1	18.3	3.9
Male	100.0	38.3	30.9	8.4	5.3	13.3	3.9
Race ²							
White	100.0	36.7	29.5	8.9	5.4	15.7	3.8
Black	100.0	34.8	31.3	6.0	4.2	19.6	4.1
Other	100.0	33.5	29.6	7.3	2.8	21.1	*5.7

See footnotes at end of table.

Table 10. Number and percent distribution of office visits with corresponding standard errors by major reason for this visit, according to patient's age, sex, and race: United States, 2002—Con.

Patient's age, sex, and race	Total	Major reason for visit					Unknown/ blank
		Acute problem	Chronic problem, routine	Chronic problem, flare-up	Pre- or post-surgery	Preventive care ¹	
		Standard error of percent					
All visits	0.8	1.1	0.5	0.3	0.8	0.6
Age							
Under 15 years	1.9	1.2	0.6	0.3	1.4	0.7
15–24 years	2.2	2.0	0.9	0.5	1.9	0.9
25–44 years	1.3	1.4	0.7	0.5	1.5	0.6
45–64 years	0.9	1.4	0.9	0.4	0.9	0.7
65–74 years	1.2	2.0	0.9	0.7	1.3	1.0
75 years and over	1.4	1.8	0.8	0.8	0.9	0.7
Sex							
Female	0.9	1.3	0.6	0.3	0.9	0.6
Male	1.0	1.2	0.6	0.4	0.8	0.5
Race ²							
White	0.9	1.1	0.6	0.3	0.8	0.6
Black	2.6	3.2	0.8	0.6	1.9	0.9
Other ²	3.2	3.6	1.4	0.6	2.5	1.9

* Figure does not meet standard of reliability or precision.

. . . Category not applicable.

¹Preventive care includes prenatal, general medical, well-baby, and screening or insurance examinations.²Other race includes visits by Asians, Native Hawaiians or other Pacific Islanders, American Indians or Alaska Natives, and multiple races. All race categories include visits by persons of Hispanic and not Hispanic origin. Persons of Hispanic origin may be of any race. Starting with data year 1999, race-specific estimates have been tabulated according to 1997 Standards for Federal Data on Race and Ethnicity and are not strictly comparable with estimates for earlier years. However, the percent of visit records with multiple races indicated is small and lower than what is typically found for self-reported race. See "Technical Notes" for more details.

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

Table 11. Number, percent distribution, and annual rate of preventive care office visits and percent of visits to primary care specialists with corresponding standard errors, by selected patient and visit characteristics: United States, 2002

Patient and visit characteristics	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent	Number of visits per 100 persons per year ¹	Standard error of rate	Percent of preventive care visits made to primary care specialists	Standard error of percent
All preventive care visits ²	144,851	8,045	100.0	...	51.2	2.8	89.9	1.2
Age								
Under 15 years	43,557	3,208	30.1	2.0	71.9	5.3	95.8	1.6
15–24 years	15,872	1,664	11.0	1.0	40.2	4.2	96.0	1.1
25–44 years	39,865	3,414	27.5	1.6	48.1	4.1	94.2	1.1
45–64 years	27,316	2,446	18.9	1.2	41.3	3.7	82.7	2.6
65–74 years	10,642	1,586	7.3	0.9	59.0	8.8	74.3	4.8
75 years and over	7,598	1,084	5.2	0.7	47.7	6.8	69.0	5.5
Sex and age								
Female	97,008	5,879	67.0	1.7	66.9	4.1	91.6	1.2
Under 15 years	21,106	1,618	14.6	1.0	71.3	5.5	95.2	1.9
15–24 years	12,606	1,494	8.7	0.9	64.2	7.6	96.5	1.2
25–44 years	34,003	3,133	23.5	1.6	80.9	7.5	95.6	1.2
45–64 years	18,471	1,886	12.8	1.0	54.1	5.5	86.1	2.6
65–74 years	5,853	735	4.0	0.4	59.5	7.5	77.7	4.2
75 years and over	4,968	890	3.4	0.6	50.7	9.1	72.9	6.0
Male	47,843	3,601	33.0	1.7	34.6	2.6	86.5	1.8
Under 15 years	22,451	1,865	15.5	1.2	72.4	6.0	96.3	1.5
15–24 years	3,266	427	2.3	0.3	16.4	2.1	94.0	2.4
25–44 years	5,862	1,000	4.0	0.6	14.4	2.5	86.2	3.6
45–64 years	8,844	1,140	6.1	0.7	27.6	3.6	75.6	4.6
65–74 years	4,789	1,065	3.3	0.7	58.5	13.0	70.1	7.5
75 years and over	2,630	467	1.8	0.3	42.8	7.6	61.5	8.1
Race								
White	120,074	7,096	82.9	1.8	52.5	3.1	89.2	1.2
Black/African American	17,502	2,450	12.1	1.5	49.5	6.9	93.4	3.2
Other ³	7,275	1,575	5.0	1.1	38.7	8.4	93.6	2.1
Primary expected source of payment								
Private insurance	97,348	6,385	67.2	1.9	48.9	3.2	92.2	1.2
Medicaid/SCHIP ⁴	17,872	1,809	12.3	1.2	53.8	5.4	94.6	1.7
Medicare	14,712	1,657	10.2	1.0	38.3	4.3	73.0	4.1
Self-pay/charity/no charge	5,834	1,186	4.0	0.8	13.4	2.7	85.6	4.3
Other ⁵	9,085	1,782	6.3	1.2	...	...	86.1	5.3

... Category not applicable.

¹Visit rates for age, sex, and race are based on U.S. Census Bureau estimates of the civilian noninstitutional population of the United States as of July 1, 2001. These population estimates reflect Census 2000 and are available from the U.S. Census Bureau. See "Technical Notes" for more detail. Visit rates by expected source of payment are based on Current Population Survey estimates on health insurance coverage (Mills, B. Health Insurance Coverage: 2001 Current Population Reports P60–220 September 2002.)

²Preventive care includes prenatal, general medical, well-baby, and screening or insurance examinations.

³Other race includes visits by Asian, Native Hawaiian or other Pacific Islander, American Indian or Alaska Native, and multiple races. All race categories include visits by persons of Hispanic origin and not Hispanic origin. Persons of Hispanic origin may be of any race. Starting with data year 1999, race-specific estimates have been tabulated according to 1997 Standards for Federal Data on Race and Ethnicity and are not strictly comparable with estimates for earlier years. However, the percent of visit records with multiple races indicated is small and lower than what is typically found for self-reported race. See "Technical Notes" for more details.

⁴SCHIP is State Children's Health Insurance Program.

⁵Other includes Workers' Compensation, unknown/blank, and payments not classified elsewhere.

Table 12. Number and percent distribution of office visits with corresponding standard errors, by physician's primary diagnosis: United States, 2002

Major disease category and ICD-9-CM code range ¹	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits	889,980	28,110	100.0	. . .
Infectious and parasitic diseases 001-139	24,431	1,740	2.7	0.2
Neoplasms. 140-239	25,321	2,477	2.8	0.3
Endocrine, nutritional, metabolic diseases, immunity disorders 240-279	52,672	5,021	5.9	0.5
Mental disorders 290-319	40,016	3,482	4.5	0.4
Diseases of the nervous system and sense organs 320-389	79,417	5,006	8.9	0.5
Diseases of the circulatory system 390-459	80,092	5,593	9.0	0.5
Diseases of the respiratory system 460-519	112,107	7,239	12.6	0.7
Diseases of the digestive system 520-579	30,132	2,287	3.4	0.2
Diseases of the genitourinary system 580-629	42,706	2,524	4.8	0.3
Diseases of the skin and subcutaneous tissue 680-709	42,743	2,910	4.8	0.3
Diseases of the musculoskeletal and connective tissue 710-739	66,575	5,370	7.5	0.5
Symptoms, signs, and ill-defined conditions 780-799	55,674	2,862	6.3	0.2
Injury and poisoning 800-999	53,143	3,650	6.0	0.4
Supplementary classification V01-V82	146,162	7,272	16.4	0.7
All other diagnoses ²	15,787	1,235	1.8	0.1
Unknown ³	23,002	4,256	2.6	0.5

. . . Category not applicable.

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

²Includes diseases of the blood and blood-forming organs (280-289); complications of pregnancy, childbirth, and the puerperium (630-677); congenital anomalies (740-759); certain conditions originating in the perinatal period (760-779).

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

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

Table 13. Number and percent distribution of office visits with corresponding standard errors, by selected primary diagnosis groups, according to patient's sex: United States, 2002

Primary diagnosis group and ICD-9-CM codes ¹	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent	Patient's sex			
					Female ²		Male ³	
					Percent distribution	Standard error of percent	Percent distribution	Standard error of percent
All visits	889,980	28,110	100.0	...	100.0	...	100.0	...
Essential hypertension 401	48,180	4,658	5.4	0.5	5.4	0.5	5.4	0.6
Routine infant or child health check V20.2	35,935	3,015	4.0	0.3	3.2	0.3	5.2	0.5
Acute upper respiratory infections, excluding pharyngitis 460-461,463-466	30,141	2,240	3.4	0.2	3.1	0.3	3.7	0.3
Diabetes mellitus 250	24,877	2,670	2.8	0.3	2.3	0.2	3.5	0.4
Arthropathies and related disorders 710-719	23,725	2,205	2.7	0.2	2.8	0.3	2.4	0.2
General medical examination V70	22,362	3,226	2.5	0.3	2.5	0.4	2.6	0.5
Spinal disorders 720-724	20,444	2,717	2.3	0.3	2.3	0.3	2.3	0.3
Rheumatism, excluding back 725-729	17,766	1,792	2.0	0.2	1.9	0.2	2.1	0.3
Normal pregnancy V22	17,585	2,354	2.0	0.3	3.3	0.4	*	...
Otitis media and Eustachian tube disorders 381-382	16,702	1,509	1.9	0.2	1.6	0.2	2.2	0.2
Malignant neoplasms 140-208,230-234	15,651	2,158	1.8	0.2	1.5	0.3	2.1	0.2
Chronic sinusitis 473	14,197	1,170	1.6	0.1	1.6	0.2	1.6	0.2
Allergic rhinitis 477	14,101	3,673	1.6	0.4	1.7	0.4	1.4	0.4
Asthma 493	12,692	1,906	1.4	0.2	1.5	0.3	1.3	0.2
Gynecological examination V72.3	11,883	1,507	1.3	0.2	2.2	0.3	*	...
Disorder of lipid metabolism 272	11,767	1,436	1.3	0.2	1.1	0.2	1.6	0.3
Heart disease, excluding ischemic 391-392.0,393-398,402,404,415-416,420-429	11,670	1,135	1.3	0.1	1.2	0.1	1.5	0.2
Ischemic heart disease 410-414.9	10,970	1,275	1.2	0.1	0.8	0.1	1.9	0.2
Acute pharyngitis 462	10,090	1,066	1.1	0.1	1.1	0.1	1.2	0.2
Followup examination V67	9,995	1,421	1.1	0.2	1.0	0.2	1.2	0.2
All other diagnoses	509,248	17,582	57.2	0.9	57.7	0.9	56.5	1.0

... Category not applicable.

* Figure does not meet standard of reliability or precision.

¹Based on the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) (7)*. However, certain codes have been combined in this table to form larger categories that better describe the utilization of ambulatory care services.

²Based on 529,075,000 visits made by females.

³Based on 360,905,000 visits made by males.

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

Table 14. Number, percent distribution, and annual rate of injury-related office visits with corresponding standard errors, by patient's age, sex, and race: United States, 2002

Patient's age, sex, and race	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent	Number of visits per 100 persons per year ¹	Standard error of rate
All injury-related visits	104,028	5,656	100.0	...	36.7	2.0
Age						
Under 15 years	17,021	1,187	16.4	1.1	28.1	2.0
15-24	11,327	1,203	10.9	0.9	28.7	3.0
25-44	27,111	2,068	26.1	1.1	32.7	2.5
45-64	29,304	2,063	28.2	1.2	44.3	3.1
65-74	9,186	865	8.8	0.7	50.9	4.8
75 years and over	10,080	1,009	9.7	0.9	63.3	6.3
Sex and age						
Female	52,036	2,941	50.0	1.1	35.9	2.0
Under 15 years	7,306	640	7.0	0.6	24.7	2.2
15-24	5,154	622	5.0	0.5	26.3	3.2
25-44	13,408	1,159	12.9	0.9	31.9	2.8
45-64	14,898	1,244	14.3	0.8	43.7	3.6
65-74	5,073	605	4.9	0.5	51.6	6.1
75 years and over	6,196	711	6.0	0.6	63.3	7.3
Male	51,992	3,169	50.0	1.1	37.7	2.3
Under 15 years	9,714	798	9.3	0.7	31.3	2.6
15-24	6,173	783	5.9	0.6	31.1	3.9
25-44	13,703	1,364	13.2	0.9	33.6	3.3
45-64	14,406	1,189	13.8	0.9	44.9	3.7
65-74	4,112	524	4.0	0.4	50.2	6.4
75 years and over	3,884	512	3.7	0.5	63.3	8.3
Race ²						
White	90,717	5,194	87.2	1.0	39.6	2.3
Black	8,870	934	8.5	0.8	25.1	2.6
Other	4,441	641	4.3	0.6	23.6	3.4

... Category not applicable.

¹Visit rates for age, sex, and race are based on the July 1, 2002, set of estimates of the civilian noninstitutional population of the United States as developed by the Population Division, U.S. Census Bureau. These population estimates reflect Census 2000 data and are available from the U.S. Census Bureau. See "Technical Notes" for more details.

²Other race includes visits by Asians, Native Hawaiians or other Pacific Islanders, American Indians or Alaska Natives, and multiple races. All race categories include visits by persons of Hispanic and not Hispanic origin. Persons of Hispanic origin may be of any race. Starting with data year 1999, race-specific estimates have been tabulated according to 1997 Standards for Federal Data on Race and Ethnicity and are not strictly comparable with estimates for earlier years. However, the percent of visit records with multiple races indicated is small and lower than what is typically found for self-reported race. See "Technical Notes" for more details.

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

Table 15. Number and percent distribution of injury-related office visits with corresponding standard errors, by intent and mechanism of external cause: United States, 2002

Intent and mechanism ¹	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All injury-related visits	104,028	5,656	100.0	...
Unintentional injuries	58,720	4,181	56.4	1.8
Falls	13,319	1,459	12.8	1.1
Struck against or struck accidentally by objects or persons	8,421	1,119	8.1	0.9
Overexertion and strenuous movements	7,120	1,016	6.8	0.9
Motor vehicle traffic	6,323	948	6.1	0.8
Natural and environmental factors	3,317	448	3.2	0.4
Cutting or piercing instruments or objects	2,050	360	2.0	0.3
Other and not elsewhere classified ²	13,207	1,307	12.7	1.1
Mechanism unspecified	4,964	735	4.8	0.6
Intentional injuries ³	*957	342	*0.9	0.3
Injuries of undetermined intent	*	...	*	...
Adverse effects of medical treatment	4,784	537	4.6	0.5
Blank cause ⁴	39,512	2,559	38.0	1.8

... Category not applicable.

* Figure does not meet standard of reliability or precision.

¹Based on the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM), Supplementary Classification of External Causes of Injury and Poisoning (7). A detailed description of the ICD-9-CM E-codes used to create the groupings in this table is provided in the "Technical Notes."

²Includes suffocation, poisoning, other transportation, machinery, firearm, fire and flames, drowning/submersion, nontraffic motor vehicle, and pedal cycle.

³Includes assault, self-inflicted, and other causes of violence.

⁴Includes illegible entries and blanks.

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

Table 16. Number and percent of office visits with corresponding standard errors, by diagnostic and screening services ordered or provided, according to patient's sex: United States, 2002

Diagnostic and screening services ordered or provided	Number of visits in thousands ¹	Standard error in thousands	Percent of visits	Standard error of percent	Patient's sex				
					Female ²		Male ³		
					Percent of visits	Standard error of percent	Percent of visits	Standard error of percent	
All visits	889,980	28,110	...	...	...	...	...	...
None	126,218	8,955	14.2	1.0	13.5	1.0	15.3	1.1	
Examinations									
General medical examination	442,299	20,837	49.7	1.7	48.9	1.8	50.8	1.7	
Other examination	206,336	13,261	23.2	1.2	25.2	1.2	20.3	1.3	
Diagnostic tests									
Blood pressure	428,011	21,114	48.1	1.5	51.5	1.7	43.1	1.6	
EKG ⁴	31,790	5,694	3.6	0.6	3.5	0.8	3.7	0.5	
Any scope procedure	18,882	1,978	2.1	0.2	2.1	0.2	2.2	0.3	
Sigmoidoscopy/colonoscopy	9,772	1,527	1.1	0.2	1.0	0.2	1.2	0.2	
Endoscopy	6,387	791	0.7	0.1	0.8	0.1	0.6	0.1	
Cystoscopy	1,874	256	0.2	0.0	0.1	0.0	0.3	0.0	
Cardiac stress test	3,740	662	0.4	0.1	0.3	0.1	0.6	0.1	
Audiometry	3,706	832	0.4	0.1	0.3	0.1	0.5	0.2	
Tuberculin skin test	2,839	647	0.3	0.1	0.3	0.1	0.3	0.1	
EEG ⁵	825	150	0.1	0.0	0.1	0.0	0.1	0.0	
Fetal monitoring	*1,526	502	*0.2	0.1	*0.3	0.1	...	...
Laboratory tests									
CBC ⁶	78,118	6,319	8.8	0.7	8.8	0.7	8.8	0.7	
Urinalysis	85,723	7,013	9.6	0.7	11.3	1.0	7.2	0.6	
Cholesterol	46,260	4,684	5.2	0.5	4.7	0.5	6.0	0.7	
PSA ⁷	14,870	1,585	1.7	0.2	...	...	4.1	0.4
Hematocrit/hemoglobin	28,321	4,641	3.2	0.5	3.7	0.7	2.4	0.4	
Pap test	36,341	2,981	4.1	0.3	6.9	0.5	...	...
Cultures									
Any culture	31,331	2,601	3.5	0.3	3.7	0.3	3.2	0.3	
Throat/rapid strep test	15,036	1,728	1.7	0.2	1.6	0.2	1.8	0.3	
Urine	6,066	1,028	0.7	0.1	0.7	0.1	0.6	0.2	
Stool	1,886	456	0.2	0.1	*	...	*	...	
Cervical/urethral	3,933	582	0.4	0.1	0.7	0.1	...	...
Imaging									
Any imaging	96,781	5,969	10.9	0.6	12.0	0.7	9.2	0.7	
X ray	53,458	4,842	6.0	0.5	5.7	0.6	6.4	0.6	
Ultrasound	8,578	1,047	1.0	0.1	1.2	0.2	0.7	0.1	
Mammography	17,560	1,916	2.0	0.2	3.3	0.3	...	...
Other imaging	32,298	2,062	3.6	0.2	3.9	0.3	3.3	0.3	
Blank	*8,331	3,016	*0.9	0.3	*0.9	0.4	*1.0	0.3	

... Category not applicable.

* Figure does not meet standard of reliability or precision.

0.0 Quantity more than zero, but less than 0.05.

¹Total exceeds "All visits" because more than one service may be reported per visit.²Based on 529,075,000 visits made by females.³Based on 360,905,000 visits made by males.⁴EKG is electrocardiogram.⁵EEG is electroencephalogram.⁶CBC is complete blood count.⁷PSA is prostate-specific antigen.

Table 17. Number and percent of office visits with corresponding standard errors, by counseling, education, or therapeutic services ordered or provided, according to patient's sex: United States, 2002

Counseling, education, or therapeutic services ordered or provided	Number of visits in thousands ¹	Standard error in thousands	Percent of visits	Standard error of percent	Patient's sex			
					Female ²		Male ³	
					Percent of visits	Standard error of percent	Percent of visits	Standard error of percent
All visits	889,980	28,110	...	...	...	...	...	...
None	473,435	17,926	53.2	1.5	52.0	1.6	55.0	1.5
Counseling/education								
Diet/nutrition	127,699	7,954	14.3	0.8	15.0	0.9	13.4	0.8
Exercise	89,087	7,191	10.0	0.7	10.5	0.8	9.3	0.8
Mental health/stress management	40,764	4,062	4.6	0.4	4.9	0.5	4.2	0.5
Weight reduction	32,050	3,397	3.6	0.4	3.9	0.5	3.1	0.3
Growth/development	29,100	3,037	3.3	0.3	3.0	0.3	3.6	0.4
Tobacco use/exposure	23,674	2,033	2.7	0.2	2.5	0.2	2.9	0.3
Physiotherapy	22,531	4,710	2.5	0.5	2.4	0.5	2.8	0.5
Asthma education	18,339	2,811	2.1	0.3	2.0	0.4	2.1	0.3
Psychotherapy	18,231	2,648	2.0	0.3	1.8	0.2	2.3	0.5
Other	190,849	13,299	21.4	1.2	22.4	1.3	20.0	1.2
Blank	18,498	3,567	2.1	0.4	2.3	0.5	1.8	0.3

... Category not applicable.

¹Numbers may not add to totals because more than one type of therapeutic or preventive service may be reported per visit.

²Based on 529,075,000 visits made by females.

³Based on 360,905,000 visits made by males.

Table 18. Number and percent distribution of write-in surgical procedures ordered or performed with corresponding standard errors, by procedure category: United States, 2002

Procedure/operation category ¹	ICD-9-CM codes	Number of procedures in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All write-in surgical procedures		69,796	4,114	100.0	...
Nervous system	01-05	1,830	385	2.6	0.5
Eye	08-16	6,782	1,083	9.7	1.4
Ear	18-20	1,458	288	2.1	0.4
Nose, mouth, and pharynx	21-29	2,777	459	4.0	0.6
Cardiovascular system	35-39	3,393	800	4.9	1.1
Digestive system	42-54	5,481	849	7.9	1.2
Urinary system	55-59	1,171	216	1.7	0.3
Male genital organs	60-64	1,830	324	2.6	0.4
Female genital organs	65-71	3,927	613	5.6	0.9
Obstetrical procedures	72-75	2,032	534	2.9	0.7
Musculoskeletal system	76-84	8,820	1,084	12.6	1.6
Integumentary system	85-86	29,469	2,705	42.2	2.4
Other procedures ²		826	178	1.2	0.3

... Category not applicable.

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

²Includes operations on the endocrine system (ICD-9-CM codes 06-07), operations on the respiratory system (ICD-9-CM codes 30-34), operations on the hemic and lymphatic system (ICD-9-CM codes 40-41).

NOTES: Included are responses to the surgery item on the Patient Record form (item 8) (up to two procedures could be reported), and the diagnostic/screening services item (item 6) (up to two procedures can be reported in the "scope procedure-specify" and the "other service-specify" categories). Miscellaneous diagnostic and therapeutic procedures (nonsurgical procedures) were not included in the total. These procedures, coded to ICD-9-CM volume 3, range 87-99, represented 113,864,000 procedures.

Table 19. Number and percent distribution of office visits with corresponding standard errors, by medication therapy and number of medications provided or prescribed, according to patient's sex: United States, 2002

Visit characteristic	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent	Patient's sex			
					Female ¹		Male ²	
					Percent distribution	Standard error of percent	Percent distribution	Standard error of percent
Medication therapy³								
All visits	889,980	28,110	100.0	...	100.0	...	100.0	...
Drug visits ⁴	577,075	20,898	64.8	1.1	65.5	1.2	63.9	1.3
Visits without mention of medication	312,906	13,755	35.2	1.1	34.5	1.2	36.1	1.3
Number of medications provided or prescribed by a physician								
All visits	889,980	28,110	100.0	...	100.0	...	100.0	...
0	312,906	13,755	35.2	1.1	34.5	1.2	36.1	1.3
1	239,750	9,396	26.9	0.6	26.9	0.7	27.0	0.7
2	146,236	6,619	16.4	0.5	16.6	0.6	16.2	0.6
3	76,317	4,382	8.6	0.4	8.8	0.5	8.3	0.4
4	39,594	2,699	4.4	0.3	4.4	0.3	4.5	0.3
5	23,309	1,839	2.6	0.2	2.8	0.3	2.3	0.2
6	51,871	4,727	5.8	0.5	6.0	0.5	5.5	0.5

... Category not applicable.

¹Based on 529,075,000 visits made by females.

²Based on 360,905,000 visits made by males.

³Includes prescription drugs, over-the-counter preparations, immunizations, and desensitizing agents.

⁴Visits at which one or more drugs were 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 percent drug visits, drug mentions, and drug mention rates per 100 visits with corresponding standard errors, by physician specialty: United States, 2002

Physician specialty	Drug visits				Drug mentions				Percent drug visits		Drug mention rates	
	Number in thousands ¹	Standard error in thousands	Percent distribution	Standard error of percent	Number in thousands ²	Standard error in thousands	Percent distribution	Standard error of percent	Percent drug visits ³	Standard error of percent	Number of drug mentions per 100 visits ⁴	Standard error of rate
All specialties	577,075	20,898	100.0	. . .	1,347,312	58,464	100.0	. . .	64.8	1.1	151.4	4.7
General and family practice	165,371	10,394	28.7	1.5	402,067	29,010	29.8	1.8	76.8	1.3	186.6	8.1
Internal medicine	115,219	12,442	20.0	1.8	310,006	38,979	23.0	2.3	73.5	3.5	197.8	15.3
Pediatrics	80,814	6,033	14.0	1.0	149,572	12,208	11.1	0.9	67.3	1.5	124.6	4.8
Obstetrics and gynecology	34,355	4,024	6.0	0.7	57,937	8,608	4.3	0.6	48.9	3.5	82.4	9.1
Ophthalmology	25,066	3,227	4.3	0.5	54,150	9,142	4.0	0.7	50.2	3.0	108.4	13.0
Dermatology	21,292	2,581	3.7	0.4	39,180	4,989	2.9	0.4	66.1	2.6	121.6	6.8
Psychiatry	17,901	2,759	3.1	0.5	39,735	6,098	2.9	0.5	82.6	2.7	183.5	9.3
Cardiovascular diseases	15,889	2,337	2.8	0.4	64,088	10,851	4.8	0.8	76.3	4.8	307.8	30.4
Orthopedic surgery	14,293	2,319	2.5	0.4	23,214	3,901	1.7	0.3	37.6	3.9	61.0	7.7
Urology	8,352	1,078	1.4	0.2	11,760	1,591	0.9	0.1	48.8	3.0	68.6	5.2
Otolaryngology	8,033	1,133	1.4	0.2	14,329	2,518	1.1	0.2	47.0	3.3	83.9	10.0
Neurology	5,799	587	1.0	0.1	12,368	1,586	0.9	0.1	60.3	3.9	128.5	12.1
General surgery	4,773	1,205	0.8	0.2	*10,314	3,313	*0.8	0.2	28.1	4.9	60.7	15.4
All other specialties	59,919	6,792	10.4	1.1	158,593	19,293	11.8	1.4	57.6	4.5	152.5	15.2

. . . Category not applicable.

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

²Number of drugs mentioned at visits (up to six per visit).

³Percent of visits that included one or more drug mentions (number of drug visits divided by number of office visits multiplied by 100).

⁴Average number of drugs that were mentioned per 100 visits (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 and percent of drug mentions for the 20 most frequently occurring therapeutic classes at office visits with corresponding standard errors: United States, 2002

Therapeutic classification ¹	Number of occurrences in thousands	Standard error in thousands	Percent of drug mentions ²	Standard error of percent
NSAIDs ³	66,328	4,718	4.9	0.2
Antidepressants	60,367	3,714	4.5	0.2
Antihistamines	58,060	4,473	4.3	0.3
Antiasthmatics/bronchodilators	54,562	5,893	4.0	0.4
Vaccines/antisera	53,785	4,942	4.0	0.4
Antihypertensive agents	49,298	4,364	3.7	0.3
Hyperlipidemia	44,065	3,290	3.3	0.2
Blood glucose regulators	41,865	4,302	3.1	0.3
ACE ⁴ inhibitors	40,927	3,026	3.0	0.2
Disorders, acid/peptic	40,812	2,695	3.0	0.1
Analgesics, non-narcotic	39,753	3,247	3.0	0.2
Penicillins	38,075	2,540	2.8	0.2
Diuretics	35,942	3,121	2.7	0.2
Antipyretics	34,784	3,047	2.6	0.2
Analgesics, narcotic	34,739	2,931	2.6	0.2
Beta blockers	33,090	2,727	2.5	0.2
Calcium channel blockers	31,998	2,768	2.4	0.2
Vitamins/minerals	30,154	3,297	2.2	0.2
Antiarthritics	28,955	2,408	2.1	0.1
Estrogens/progestins	28,359	2,433	2.1	0.2

¹Based on the standard four-digit drug classification used in the *National Drug Code (NDC) Directory*, 1995 edition (10).²Based on an estimated 1,347,312,000 drug mentions at office visits in 2002.³NSAIDs are nonsteroidal anti-inflammatory drugs.⁴ACE is angiotensin-converting enzyme.**Table 22. Number and rate of generic substances for the 20 most frequently occurring generic substances in drug mentions at office visits with corresponding standard errors: United States, 2002**

Generic substance	Number of occurrences in thousands ¹	Standard error in thousands	Number of generic substances per 100 drug mentions ²	Standard error of rate
Acetaminophen	45,381	3,694	3.4	0.2
Amoxicillin	35,791	2,444	2.7	0.2
Hydrochlorothiazide	28,406	2,812	2.1	0.2
Albuterol	25,174	2,694	1.9	0.2
Aspirin	23,409	2,145	1.7	0.1
Hydrocodone	21,643	2,206	1.6	0.1
Fluticasone propionate	20,626	2,394	1.5	0.2
Levothyroxine	19,248	1,992	1.4	0.1
Atorvastatin calcium	19,062	1,585	1.4	0.1
Ibuprofen	17,651	1,397	1.3	0.1
Lisinopril	17,320	1,590	1.3	0.1
Pseudoephedrine	16,770	1,928	1.2	0.1
Furosemide	16,507	1,599	1.2	0.1
Guaifenesin	15,822	1,793	1.2	0.1
Metoprolol	15,767	1,485	1.2	0.1
Amlodipine	15,643	1,451	1.2	0.1
Azithromycin	14,125	1,351	1.0	0.1
Estrogens	13,973	1,474	1.0	0.1
Celecoxib	13,763	1,641	1.0	0.1
Triamcinolone	13,039	1,610	1.0	0.1

¹Frequency of mention combines single-ingredient agents with mentions of the agent as an ingredient in a combination drug.²Based on an estimated 1,347,312,000 drug mentions at office visits in 2002.

Table 23. Number, percent distribution, and therapeutic classification for the 20 drugs most frequently prescribed at office visits with corresponding standard errors, by entry name of drug: United States, 2002

Entry name of drug ¹	Number of drug mentions in thousands	Standard error in thousands	Percent distribution	Standard error of percent	Therapeutic classification ²
All drug mentions	1,347,312	58,464	100.0	. . .	. . .
Lipitor	18,842	1,577	1.4	0.1	Hyperlipidemia
Albuterol	15,442	1,860	1.1	0.1	Antiasthmatics/bronchodilators
Amoxicillin	14,690	1,423	1.1	0.1	Penicillins
Synthroid	14,525	1,708	1.1	0.1	Thyroid/antithyroid
Lasix	14,004	1,454	1.0	0.1	Diuretics
Celebrex	13,763	1,641	1.0	0.1	NSAIDs ³
Tylenol	12,919	2,368	1.0	0.2	Nonnarcotic analgesics; antipyretics
Vioxx	12,650	1,724	0.9	0.1	NSAIDs ³
Augmentin	11,995	1,156	0.9	0.1	Penicillins
Norvasc	11,853	1,172	0.9	0.1	Calcium channel blockers
Zyrtec	11,573	1,377	0.9	0.1	Antihistamines
Zocor	11,429	1,171	0.8	0.1	Hyperlipidemia
A.S.A. ⁴	10,670	1,345	0.8	0.1	Nonnarcotic analgesics; antiarthritics; antipyretics
Prednisone	10,422	1,171	0.8	0.1	Adrenal corticosteroids
Allegra	10,420	1,315	0.8	0.1	Antihistamines
Coumadin	10,090	1,273	0.7	0.1	Anticoagulants/thrombolytics
Atenolol	9,694	1,186	0.7	0.1	Beta blockers
Claritin	9,208	1,179	0.7	0.1	Antihistamines
Paxil	9,118	924	0.7	0.1	Antidepressants
Prevacid	8,981	901	0.7	0.1	Acid/peptic disorders
All other	1,105,025	46,612	82.0	0.5	. . .

. . . Category not applicable.

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

²Therapeutic classification is based on the *National Drug Code Directory*, 1995 edition (10). In cases where a drug had more than one therapeutic use, it was classified under each therapeutic class.

³NSAIDs are nonsteroidal anti-inflammatory drugs.

⁴A.S.A. is acetylsalicylic acid.

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

Table 24. Number and percent of office visits with corresponding standard errors, by providers seen: United States, 2002

Type of provider	Number of visits in thousands ¹	Standard error in thousands	Percent of visits	Standard error of percent
All visits	889,980	28,110	. . .	. . .
Physician	846,167	27,573	95.1	0.6
Medical/nursing assistant	243,082	19,551	27.3	1.9
R.N. ²	146,513	15,495	16.5	1.6
L.P.N. ³	88,902	13,202	10.0	1.4
Medical technician/technologist	54,983	6,969	6.2	0.7
Physician assistant	16,264	3,525	1.8	0.4
Nurse practitioner/midwife	*11,176	3,656	*1.3	0.4
Other	31,784	8,038	3.6	0.9

. . . Category not applicable.

* Figure does not meet standard of reliability or precision.

¹Total exceeds "All visits" because more than one provider may be reported per visit.

²R.N. is registered nurse.

³L.P.N. is licensed practical nurse.

Table 25. Number and percent of office visits with corresponding standard errors, by visit disposition: United States, 2002

Disposition	Number of visits in thousands ¹	Standard error in thousands	Percent of visits	Standard error of percent
All visits	889,980	28,110	...	...
Return at specified time	537,891	20,764	60.4	1.2
Return if needed, P.R.N. ²	243,944	14,152	27.4	1.1
No followup planned	75,206	4,923	8.5	0.5
Referred to other physician	65,323	5,689	7.3	0.6
Telephone followup planned	24,387	4,711	2.7	0.5
Admitted to hospital	4,011	587	0.5	0.1
Other disposition	18,454	4,348	2.1	0.5
Blank	20,275	3,629	2.3	0.4

... Category not applicable.

¹Total exceeds "All visits" because more than one disposition may be reported per visit.

²P.R.N. is "as needed."

Table 26. Number and percent distribution of office visits with corresponding standard errors, by time spent with physician: United States, 2002

Time spent with physician	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits	889,980	28,110	100.0	...
Visits at which no physician was seen	43,813	5,140	4.9	0.6
Visits at which a physician was seen	846,167	27,573	95.1	0.6
Total	846,167	27,573	100.0	...
1–5 minutes	38,393	5,412	4.5	0.6
6–10 minutes	181,078	11,403	21.4	1.1
11–15 minutes	290,573	12,660	34.3	1.0
16–30 minutes	275,653	13,529	32.6	1.3
31–60 minutes	57,693	5,996	6.8	0.6
61 minutes and over	2,777	637	0.3	0.1

... Category not applicable.

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

Table 27. Mean time spent with physician with corresponding standard errors, by physician specialty: United States, 2002

Physician specialty	Mean time in minutes spent with physician ¹	Standard error of mean	25th percentile	Median	75th percentile
All visits	18.4	0.3	9.9	14.7	19.8
Psychiatry	35.2	1.7	19.8	29.6	48.2
Neurology	27.9	1.1	14.7	24.1	38.0
Cardiovascular diseases	21.4	1.2	13.6	18.0	28.2
Internal medicine	20.0	1.2	13.4	17.1	24.2
General surgery	19.6	1.0	9.9	14.5	24.4
Urology	18.2	0.8	14.1	14.8	19.6
Obstetrics and gynecology	18.1	0.9	9.8	14.7	19.8
Ophthalmology	17.3	1.1	9.5	14.4	19.6
Orthopedic surgery	17.1	0.5	13.2	14.3	18.8
General and family practice	16.1	0.3	9.8	14.5	19.3
Pediatrics	16.1	0.5	9.7	14.5	19.3
Dermatology	15.2	1.0	9.2	14.1	14.9
Otolaryngology	15.1	0.7	9.5	14.3	19.1
All other specialties	21.3	1.0	14.1	15.0	25.7

¹Only visits where a physician was seen are included.

Table 28. Office-based physician-level estimates with corresponding standard errors, by selected practice characteristics according to specialty type: United States, 2002

Practice characteristics	Specialty type				All specialties	Specialty type		
	All specialties	Primary care	Surgical	Medical		Primary care	Surgical	Medical
	Number of physicians				Standard error			
All office-based physicians	308,023	154,725	78,430	74,868	8,149	4,674	3,438	3,793
	Percent distribution							
Total sample	100.0	100.0	100.0	100.0	...	...	...	...
Number of in-scope office locations								
One	86.1	88.1	82.6	85.6	1.3	1.9	2.1	2.4
More than one	13.9	11.9	17.4	14.4	1.3	1.9	2.1	2.4
Number of days practicing during random NAMCS week								
0	17.7	15.2	19.5	20.9	1.3	1.7	2.0	2.5
1-2	17.7	10.9	27.7	21.4	1.2	1.3	2.2	3.0
3-4	39.0	40.6	38.4	36.1	1.8	2.4	2.5	3.2
5 or more	25.7	33.3	14.4	21.7	1.4	2.3	1.8	2.5
Type of practice								
Solo	34.3	33.7	32.3	37.8	1.7	2.5	2.8	3.5
Single-specialty group	41.0	38.4	47.5	39.7	1.9	2.6	2.9	3.8
Multispecialty group	24.7	28.0	20.2	22.5	1.8	2.4	2.6	3.4
Employment status								
Owner	72.7	66.6	81.2	76.8	1.8	2.6	2.2	2.8
Employee	22.4	28.2	16.2	17.0	1.7	2.5	2.0	2.7
Contractor	4.8	5.2	2.7	6.2	0.7	1.1	0.9	1.6
	Percent of physicians ¹							
Type of consultation ²								
Hospital visits	69.8	70.0	79.5	58.9	1.7	2.5	2.7	3.5
Telephone consultation	67.6	73.2	59.0	64.0	1.9	2.5	3.5	3.6
Home visits	12.5	19.1	5.6	5.3	1.3	2.4	1.3	1.5
E-mail/Internet consultation	5.9	6.8	5.0	4.8	1.0	1.5	1.5	1.3
	Mean number in week ³							
Office visits	76.5	92.4	63.5	57.3	1.9	3.2	2.3	3.5
Telephone consultation	20.8	26.3	11.5	15.7	1.3	2.1	1.0	2.0
Hospital visits	20.5	17.0	17.6	34.1	1.6	2.1	1.5	4.8
Home visits	10.1	11.7	2.6	6.0	1.8	2.2	0.7	1.8
E-mail/Internet consultations	6.0	5.7	7.3	5.2	1.2	1.8	2.4	1.1
	Mean percent							
Percent of revenue from selected sources ⁴								
Private insurance	48.3	52.7	43.7	44.1	1.0	1.3	1.4	2.0
Medicare	29.8	24.6	28.2	31.8	0.9	1.1	1.3	1.8
Medicaid	12.0	14.3	9.9	9.5	0.5	0.8	0.7	1.1
Other sources	10.3	8.2	9.4	15.9	0.8	0.8	1.2	2.1
	Percent distribution							
Number of managed care contracts								
None	9.7	6.4	9.2	17.0	1.1	1.5	1.7	2.5
1-2	8.5	7.7	10.3	8.3	0.9	1.3	1.8	1.6
3-10	40.3	43.7	38.7	34.8	2.0	2.8	2.9	3.6
More than 10	35.4	36.5	36.8	31.5	2.0	2.6	2.9	3.7
Blank	6.2	5.6	5.1	8.5	1.1	1.3	1.4	2.3

See footnotes at end of table.

Table 28. Office-based physician-level estimates with corresponding standard errors, by selected practice characteristics according to specialty type: United States, 2002—Con.

Practice characteristics	Specialty type			Specialty type				
	All specialties	Primary care	Surgical	Medical	All specialties	Primary care	Surgical	Medical
	Percent of physicians			Standard error				
Percent accepting new patients by pay source ⁵								
Any patients	95.4	94.0	99.0	94.4	0.7	1.1	0.7	1.2
Self-pay	90.8	89.4	96.2	87.9	1.1	1.6	1.2	2.1
Medicare	80.2	71.8	96.4	80.8	1.2	2.0	1.1	2.3
Noncapitated private insurance	78.1	80.2	83.1	68.2	1.6	2.2	2.4	3.3
Medicaid	70.5	67.4	80.0	66.8	1.7	2.6	2.5	2.9
Worker's compensation	59.2	51.9	77.8	54.7	1.8	2.6	2.6	3.2
Capitated private insurance	53.4	57.8	49.6	48.1	2.1	2.8	3.4	3.5
No charge/charity	53.2	50.5	61.0	50.4	2.0	2.7	3.1	3.5
	Percent of physicians			Standard error				
Electronic patient records ⁶								
Medical	17.3	18.0	18.8	14.3	1.1	2.1	2.9	2.7
Billing	74.4	77.1	77.5	65.4	1.6	2.3	2.5	3.5

. Category not applicable.

¹Percent of physicians reporting any consultations during a typical week of work. Missing values ranged from 12 to 16 percent depending on type of consultation.

²Missing values ranged from 12 to 16 percent depending on type of consultation.

³Mean number of consultations during a typical week of work for physicians with any of that type of consultation.

⁴Missing values ranged from 10 to 20 percent depending on revenue source.

⁵Missing values ranged from 3 to 15 percent depending on payment method. The missing value for accepting any new patients is 0.6 percent.

⁶Missing values are about 1.7 percent for electronic medical records and 5.1 percent for electronic billing records.

NOTES: Estimates of office-based physicians exclude the specialties of anesthesiology, radiology, and pathology. Numbers may not add to totals because of rounding.

Technical Notes

Data collection

The NAMCS data collection is authorized under Section 308d of the Public Health Service Act (Title 42 United States Code, Section 306[242k]). Participation is voluntary. In 2002, of the 1,492 in-scope physicians who participated in the NAMCS, 1,233 of them completed 28,738 Patient Record forms, and 259 physicians reported no patients during their sampled week. Also, for physicians who completed Patient Record forms, 98.5 percent (N=1,215) responded fully or adequately, and 1.5 percent (N=18) responded minimally, for an unweighted physician participation rate of 71.2 percent.

The U.S. Census Bureau, acting as the data collection agent for the survey, provided training to field representatives (FRs) throughout the Nation. They, in turn, oversaw data collection at the physician's office. FRs contacted physicians for induction into the survey after an advance letter was mailed by NCHS notifying the physicians of their selection for the survey. In most cases, physicians' and/or their staff completed the information requested on the Patient Record forms (see [figure I](#)). However, in 30.3 percent of the offices, FRs abstracted the data from medical records or computer printouts, either alone or with the doctor or office staff. No personally identifying information such as patient name or address is collected. Confidentiality of the data collected in the survey is protected under the Privacy Act, Public Health Service Act, Title 42 of the United States Code, Section 242m (d), and Title V of the E-Government Act of 2002.

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 does not measure any systematic biases in the data.

The standard errors presented in the tables and used in tests of significance

Table I. Coefficients appropriate for determining approximate relative standard errors by type of estimate and physician specialty: National Ambulatory Medical Care Survey, 2002

Type of estimate and physician specialty	Coefficient for use with estimates in thousands		Lowest reliable estimate (in thousands)
	A	B	
Visits			
Overall totals	0.001885	67.975	771
General and family practice	0.005017	46.488	548
Internal medicine	0.012114	117.073	1,504
Pediatrics	0.005394	51.389	608
General surgery	0.016740	20.945	286
Obstetrics and gynecology	0.011182	74.840	950
Orthopedic surgery.	0.018688	45.179	634
Cardiovascular diseases	0.015939	23.877	323
Dermatology.	0.014560	27.893	370
Urology.	0.012960	19.354	252
Psychiatry	0.016826	36.280	496
Neurology	0.009287	8.185	102
Ophthalmology	0.012374	71.024	915
Otolaryngology	0.015390	13.691	184
All other specialties	0.011088	79.546	1,009
Drug mentions			
Overall totals	0.003469	132.030	1,526
General and family practice	0.006536	126.282	1,513
Internal medicine.	0.018887	330.478	4,647
Pediatrics	0.007724	107.747	1,310
General surgery	0.042731	52.401	1,109
Obstetrics and gynecology	0.025114	126.290	1,946
Orthopedic surgery.	0.026888	71.607	1,135
Cardiovascular diseases	0.031081	79.640	1,352
Dermatology.	0.014363	63.287	837
Urology	0.019728	25.141	358
Psychiatry	0.022866	90.933	1,355
Neurology	0.015312	21.435	287
Ophthalmology	0.027404	124.499	1,989
Otolaryngology	0.032009	21.442	370
All other specialties	0.016159	271.348	3,675

NOTE: These coefficients apply to NAMCS 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 0.011915 and 29,949, respectively. The corresponding coefficients for estimates of drug mentions in thousands are 0.012174 and 99.018. To perform analyses of NAMCS data on visits to M.D.'s only, excluding doctors of osteopathy, contact the Ambulatory Care Statistics Branch.

for this report were estimated using SUDAAN software. SUDAAN computes standard errors by using a first-order Taylor series approximation of the deviation of estimates from their expected values. A description of the software and the approach it uses has been published (4). 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 RSEs for

aggregate estimates 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](#).

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

Similarly, RSEs for an estimate of a percent 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 coefficients from [table I](#).

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

The standard error for a rate may be obtained by multiplying the RSE 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. This Theorem states that given a sufficiently large sample size, the sample estimate approximates the population estimate and, upon repeated 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 or more cases include an asterisk only if the RSE of the estimate exceeds 30 percent.

Estimation

Statistics from the NAMCS are derived by a multistage estimation procedure that produces essentially unbiased national estimates. The estimation procedure has four basic components:

- inflation by reciprocals of the sampling selection probabilities
- adjustment for nonresponse
- a population weighting ratio adjustment
- weight smoothing

Estimates from the NAMCS data were adjusted to account for sample physicians who did not participate in the study. This was done in a manner that minimized the impact of nonresponse on final estimates by imputing to nonresponding physicians the practice characteristics of similar responding physicians. For this purpose, similar physicians were judged to be physicians having the same specialty designation and practicing in the same PSU. In 2002, the weight from physicians who provided a minimal number of Patient Record forms was capped. The remaining weight for these minimally responding doctors was accounted for

by all in-scope, responding doctors in the specialty and PSU. These doctors were counted as nonrespondents in the response rates presented.

Nonsampling errors

As in any survey, results are subject to both 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 items, 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 0.1 to 1.1 for various data items.

Adjustments for survey nonresponse—The weighted response rate for the 2002 NAMCS was 71.1 percent. [Table II](#) presents weighted characteristics of NAMCS respondents and nonrespondents, along with weighted response rates. Distributions were similar, with the exception of region, metropolitan status, physician specialty where internal medicine physicians were less likely to cooperate, and practice type. The effect of this differential response is minimized in the visit estimates in most cases as NAMCS uses a nonresponse adjustment factor that takes all of these variables into account, except practice type.

Adjustments for item nonresponse—Item nonresponse rates in the NAMCS are generally low (5 percent or less). However, levels of nonresponse can vary considerably in the survey. 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. In this report, the majority of tables include a

combined entry of “unknown” and/or “blank” to display missing data. For items where combined item nonresponse is between 30 and 50 percent, percent distributions are not discussed in the text. However, the information is shown in the tables. These data should be interpreted with caution. If nonresponse is random, the observed distribution for the reported item (i.e., excluding causes for which the information is unknown) 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. For items with a nonresponse greater than 50 percent, data are not presented.

Weighted item nonresponse rates (i.e., if the item was left blank or the “unknown” box was marked) were 5.0 percent or less for data items with the following exceptions: ethnicity (21.3 percent), was patient referred for this visit (18.4 percent), how many past visits in the last 12 months (5.5 percent), patient’s PCP (5.6 percent), episode of care (9.3 percent), do other physicians share patient’s care for this problem or diagnosis (13.2 percent), and cause of injury (36.8 percent of injury visits).

For some items, missing values were imputed by randomly assigning a value from a Patient Record form with similar characteristics and were based on physician specialty, geographic region, and three-digit ICD-9-CM codes for primary diagnosis. Imputations were performed for the following variables: birth year (2.3 percent), sex (5.0 percent), race (16.4 percent), and time spent with physician (13.1 percent). This represents a change from previous survey years when imputations were also performed for the following variables: ethnicity, disposition, and providers seen. Beginning in 1997, these latter items were no longer imputed. Blank or otherwise missing responses are 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

Table II. Characteristics of the 2002 National Ambulatory Medical Care Survey, physician respondents and nonrespondents

Physician characteristic ¹	Number of sampled in-scope physicians ²	Total sample percent distribution ³ (weighted)	Responding physician distribution ⁴ (weighted)	Nonresponding physician distribution ⁵ (weighted)	Weighted response rate ⁶
All office-based physicians	2,095	100.0	100.0	100.0	0.711
Age					
Under 50 years	1,080	54.1	54.9	51.9	0.722
50 years and over	1,015	45.9	45.1	48.1	0.697
Sex					
Male	1711	79.6	78.6	82.1	0.702
Female	384	20.4	21.4	17.9	0.746
Region ⁷					
Northeast	479	21.3	18.2	29.0	0.607
Midwest	473	22.6	23.1	21.2	0.729
South	660	33.3	36.3	25.8	0.776
West	483	22.8	22.3	24.0	0.695
Metropolitan status ⁷					
MSA area ⁸	1,848	87.1	85.5	91.2	0.697
Non-MSA area ⁸	247	12.9	14.5	8.8	0.802
Type of doctor					
Doctor of medicine	1,940	93.8	93.6	94.3	0.709
Doctor of osteopathy	155	6.2	6.4	5.7	0.734
Specialty ⁷					
General/family practice	328	18.4	19.7	15.1	0.762
Internal medicine	156	15.1	12.5	21.6	0.588
Pediatrics	159	9.7	11.7	4.7	0.860
General surgery	115	3.8	4.0	3.2	0.755
Obstetrics and gynecology	120	7.7	8.0	7.1	0.734
Orthopedic surgery	114	4.9	4.4	6.1	0.638
Cardiovascular diseases	147	4.1	3.5	5.4	0.618
Dermatology	92	2.1	2.3	1.7	0.764
Urology	115	2.1	2.1	2.2	0.703
Psychiatry	158	5.5	5.3	6.0	0.683
Neurology	161	1.9	1.6	2.8	0.584
Ophthalmology	105	4.4	4.1	5.1	0.663
Otolaryngology	107	2.0	1.9	2.2	0.679
All other specialties	218	18.4	19.0	16.9	0.735
Specialty type ⁹					
Primary care	749	50.0	51.0	47.6	0.725
Surgical	765	26.1	24.5	30.0	0.668
Medical	581	23.9	24.5	22.3	0.729
Practice type ⁷					
Solo	685	31.6	31.9	31.0	0.717
Two physicians	167	7.5	6.9	8.9	0.656
Group/HMO ¹⁰	704	33.9	35.0	31.0	0.735
Medical school/government	31	1.3	1.6	0.5	0.888
Other	42	1.8	2.2	1.1	0.833
Unclassified	466	23.9	22.4	27.6	0.666

¹Characteristic information is from the master files of the American Medical Association and the American Osteopathic Association.
²In-scope physicians are those who verified that they were non-Federal and involved in direct patient care in an office-based setting, excluding the specialties of radiology, pathology, and anesthesiology.
³Total physicians are those who were selected from the master files of the American Medical Association and the American Osteopathic Association.
⁴Responding physicians are those who were in-scope and agreed to participate in the NAMCS survey.
⁵Nonresponding physicians are those who were in-scope and refused to participate in the NAMCS survey.
⁶Numerator is the number of in-scope physicians who participated in the NAMCS or who did not see any patients during their sampled reporting week. Denominator is all in-scope sampled physicians.
⁷Significant difference in response rate $p < .05$.
⁸MSA is metropolitan statistical area.
⁹Specialty type is defined in table IV of the "Technical Notes."
¹⁰HMO is health maintenance organization.

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.

A weighted least-squares regression analysis was used to determine the significance of trends. For the weighted least-squares test, the null hypothesis is that the slope, β , of the regression line between the two variables of interest does not significantly differ from zero, and the alternative hypothesis is that it does differ from zero (i.e., $H_0: \beta=0$, and $H_A: \beta \neq 0$). In this modified least-square regression, each estimate is weighted by the inverse of the standard error (17).

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

Race

The instruction for the race item on the Patient Record form was changed in 1999 to be consistent with standards issued by the Office of Management and Budget to promote comparability of data among Federal data sources and so that more than one race could be recorded per person (18). The new race item includes the following groups: white, black or African American, Asian, Native Hawaiian or other Pacific Islander, and American Indian or Alaska Native. Respondents could check multiple categories for each patient. Prior to 1999, only a single race category could be checked per person. Because of the difference between single and multiple race reporting, race-specific estimates prior to 1999 are not strictly comparable with those from

1999 and subsequent years. From 1999 to the present, only a small proportion of records had multiple races indicated. Where reliable multiple-race estimates can be obtained, they are presented in one category. Estimates for specific race categories reflect visits where only a single race was reported. See “Population figures and rate calculation” in the “Technical Notes” for more information.

According to the same standards, data on race and Hispanic origin were collected separately. Consequently, all race categories include visits by persons of Hispanic and not Hispanic origin. Persons of Hispanic origin may be of any race.

Injury groups

Table 15 presents data on the intent and mechanism producing the injuries that resulted in 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.” However, for table 15, the first-listed cause-of-injury data were grouped to highlight the interaction

between intentionality of the injury and the mechanism that produced the injury. Table III shows the E-code groupings used to produce this table.

Physician specialty groups

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 (AMA). Estimates are presented in this report with doctors of osteopathy combined with doctors of medicine, unless otherwise noted. Table IV shows physician specialty groups split into three major categories: primary care, surgical specialties, and medical specialties based on the AMA classification.

Population figures and rate calculation

The 2002 visit rates for age, sex, race, geographic region, and metropolitan status use Census 2000-based postcensal estimates of the civilian noninstitutional population of the United States as of July 1, 2002, as prepared by the U.S. Census Bureau. Between 1992 and 2000, NAMCS and NHAMCS visit rates used 1990 census-based population estimates. The change in visit rates due to switching from the 1990 census-based population estimates to Census 2000-based population estimates presented in this report for age, sex, and race is minimal. To evaluate the effect of the change in the base year, the 2000 NAMCS and NHAMCS visit rates were calculated using both the 1990-based population estimates and the 2000-based population estimates. In no case were differences in the two rates statistically significant. It is, therefore, reasonable to conclude that the effect of the change in base year has little impact on observed trends that cross these survey years. For more information on rate comparisons, see <http://www.cdc.gov/nchs/about/major/ahcd/ahcd1.htm>.

Table III. 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, medical 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
Firearm missile	E922
Other and not elsewhere classified	E846–E848, E914–E915, E918, E923, E925–E926, E928.3, E928.8, E929.0–E929.5
Mechanism unspecified	E887, E928.9, 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

¹Based on the “Supplementary Classification of External Causes of Injury and Poisoning,” *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM) (7).

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

Physician specialty group	Physician specialty
Primary care specialties	Family practice, geriatric medicine (family practice), sports medicine (family practice), general practice, internal medicine/pediatrics, 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 (obstetrics and gynecology), abdominal surgery, cardiovascular surgery, colon and rectal surgery, cardiothoracic surgery, facial plastic surgery, head and neck surgery, oral and maxillofacial surgery, plastic surgery within the head and neck, neurological surgery, pediatric surgery (neurology), pediatric surgery, vascular surgery, plastic surgery, surgical oncology, thoracic surgery, and transplant surgery.
Medical specialties	Allergy, addiction medicine, addiction psychiatry, allergy and immunology, allergy and immunology/diagnostic laboratory immunology, bronchoesophageal medicine, cardiology, clinical genetics, clinical biochemical genetics, clinical cytogenetics, clinical molecular genetics, critical care medicine, dermatology, 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, neurology, nephrology, nutrition, occupational medicine, medical oncology, clinical pharmacology, pulmonary critical care medicine, pediatric emergency medicine (emergency medicine), psychiatry, 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.

Population estimates for race groups in the 2002 NAMCS and NHAMCS are based on Census 2000 where respondents were able to indicate more than one race category (as requested by the 1997 Standards for Federal Data on Race and Ethnicity) (18). The multiple race indication was adopted by the 1999 NAMCS and NHAMCS, but the denominators that were available for calculating rates in 1999 and 2000 were based on estimates from the 1990 census, which indicated single-response race categories. Population estimates for 2000 were not used as denominators for 2000 NAMCS and NHAMCS visit rates because these estimates were not available. In addition, NAMCS and NHAMCS had very few records for multiple-race persons, so rates for single-race groups were calculated by dividing estimates by denominators that included some unidentifiable multiple-race persons. Starting with 2001, the denominators used for calculating race-specific visit rates reflect the transition to multiple-race reporting. Specific race denominators reflect persons with a single race identification, and a separate denominator is available for persons of multiple races. In this report, a visit rate for white persons, for example, uses a denominator that reflects the “white only” population, and the numerator is the number of visits where white and no other race category was reported as the patient’s race by the health care provider.

Data indicate that multiple races are recorded less frequently in medical records than occur in the general population. The 2002 population estimates indicate that multiple-race persons account for 1.5 percent of the total population, and multiple-race patients (as indicated by the provider) account for 0.3 percent of physician office visits. This difference exists because physicians are less likely to know and record the multiple-race preference of the patient and not because, after age adjusting, persons with multiple races make fewer doctor visits. This implies that the race population rates calculated in 2002 are probably slight overestimates for the single-race categories and underestimates for the multiple-race category.

The 2002 MSA population estimates based on Census 2000 were not available from the U.S. Census Bureau. They were calculated from data provided by the Office of Research Methods and Division of Health Interview Statistics, NCHS, and are based on estimates of the civilian noninstitutionalized population of the United States as of July 1, 2002, using Census 2000 data with adjustments to 2002 totals.

Definition of terms

Continuity of care—Continuity of care is a goal of health care achieved

through an interdisciplinary process involving patients, families, health care professionals, and providers in the management of a coordinated plan of care. Based on changing needs and available resources, the process optimizes quality outcomes in the health status of clients. It may involve professionals from many different disciplines within multiple systems.

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 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 a visit at which medication was prescribed or provided by the physician.

Episode of care—This term attempts to measure the nature of the care provided at the visit, an initial visit versus a followup visit. An episode of care begins with the initial visit for care for a particular problem and ends when the patient is no longer continuing treatment. A problem may recur later, but that is considered a new episode of care. An initial visit may be diagnostic

in nature, whereas a followup visit may be to check progress or continue therapy.

Followup visit—Care was previously provided for this problem. This is the second or subsequent visit for a problem or complaint.

Illness-related visit—A visit is considered illness-related if it was not defined as an injury visit as in the definition for an injury-related visit.

Initial visit—This is the first visit for care of a particular problem or complaint.

Injury-related visit—A visit is injury-related if “Yes” was checked in response to item 4a, “Is this visit related to injury, or poisoning, or adverse effect of medical treatment?,” if a cause of injury or a nature of injury diagnosis was provided, or if an injury-related reason for the visit was reported.

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

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.

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

Primary care physician/provider—A primary care physician/provider (PCP) plans and provides the comprehensive health care of the patient. A visit to the patient’s PCP is one in which health care is provided by the patient’s PCP or by a provider substituting for the patient’s PCP.

Primary care specialist—A primary care specialist has designated a primary care specialty of general and family

practice, internal medicine, pediatrics, etc. Primary care specialists are grouped and presented in [table IV](#) of the “Technical Notes.” The terms “primary care specialties” and “primary care specialists” are used interchangeably throughout this report and refer to the self-designated classification by physicians in the AMA and AOA masterfiles.

Primary expected source of payment—The primary expected source of payment is the source that to the best of the physician or physician’s staff’s knowledge describes how charges incurred for this visit will be paid:

- *Self-pay*—Charges billed directly to the patient that will not be reimbursed by a third party. Does not include prepaid plans for which copayment is charged.
- *Medicare*—Charges paid in part or in full by a Medicare plan, including payments made directly to the hospital as well as payments to the patient.
- *Medicaid/SCHIP*—Charges paid in part or in full by a Medicaid or State Children’s Health Insurance Plan (SCHIP), including payments made directly to the hospital as well as payments to the patient. SCHIP, enacted as part of the Balanced Budget Act of 1997, gave States the opportunity to provide free or low-cost insurance coverage to low-income children not otherwise eligible to be covered by Medicaid. States began enrolling children in 1998 using Medicaid or State-specific programs separate from Medicaid, or both. By 2000, all States had implemented their SCHIP programs.
- *Private insurance*—Charges paid in part or in full by a private insurance company, health maintenance organization (HMO) plan or other prepayment plan, including independent practice associations (IPAs) and preferred provider organizations (PPOs).
- *No charge/charity*—Visits for which no fee is charged (not including visits paid for as part of a total care package, e.g., postoperative visits included in a surgical fee, pregnancy

visits for which a flat fee was charged, and HMO and prepaid systems).

- *Other sources*—All other sources of payment not in the preceding categories. Charges paid under any other local, State, or Federal health care program such as workers’ compensation programs and CHAMPUS.
- *Unknown*—Cases where none of the previous sources of payment categories was checked.

Visit—A visit is a direct, personal exchange between an ambulatory patient seeking care and a physician or a staff member working under the physician’s supervision for the purpose of rendering personal health services. Excluded from the NAMCS are encounters where medical care was not provided, such as phone consultations and e-mail consultations, or at visits made to drop off specimens, pay bills, or make appointments.

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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