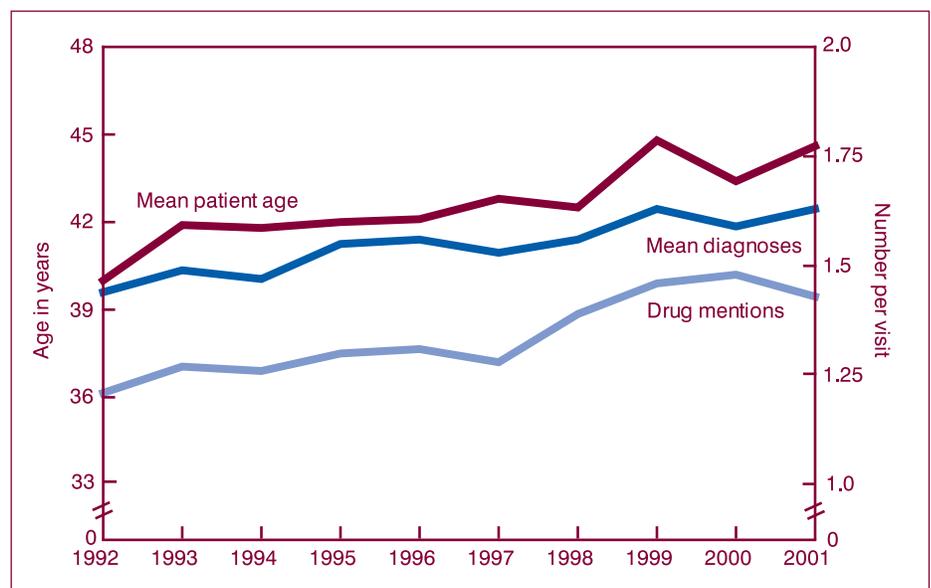


## National Ambulatory Medical Care Survey: 2001 Summary

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This report presents practice characteristics of office-based physicians in the United States along with selected trends from 1992 and 1997 for both office visit and physician practice characteristics. The data are from the National Ambulatory Medical Care Survey (NAMCS).

Between 1992 and 2001, visits became more complex with patient age increasing, more diagnoses rendered per visit, and more multiple medications to manage (see figure inset). Patients 45 years and over accounted for 53.1 percent of office visits, up from 42.3 percent in 1992. The total visit rate per 100 persons for this age group increased from 407.3 in 1992 to 478.2 in 2001 (up 17%). About one-half of all visits were to the patient's primary care physician. About 1 in 10 visits was by a new patient (down 20% from 1992). Established patients tended to make multiple visits each year with about 23 percent of visits made by patients with six or more previous visits within 1 year. Over one-third of office visits were for chronic conditions, 35.3 percent for acute problems, 16.8 percent for



Trends in key physician office visit characteristics: United States, 1992-2001

preventive care, 11.3 percent for injuries, and 5.6 percent for pre- and post-surgical consultations. Uninsured persons were less likely to use physician offices for preventive care compared with privately or publicly insured individuals.

The top five therapeutic drug classes were cardiovascular-renal drugs, drugs for the relief of pain, respiratory tract drugs, hormones, and central nervous system drugs. The relative use of antimicrobials decreased by 45% between 1992 and 2001, which demonstrated the shift in prescribing patterns for these drugs. Relative increases were found for central nervous system drugs, metabolic and/or nutrient agents, and hormones.

### Acknowledgments

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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. Results highlighting new items on continuity of care are presented. They include whether the visit was the first or a followup for a problem, number of visits to this provider in the past 12 months for established patients, and whether other physicians shared care for the patient's problem. The report also highlights estimates of practice characteristics for office-based physicians.

**Methods**—The data presented in this report were collected from the 2001 National Ambulatory Medical Care Survey (NAMCS). NAMCS is part of the ambulatory care component of the National Health Care Survey that measures health care utilization by 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 the 1992 and 1997 NAMCS are also presented.

**Results**—During 2001, an estimated 880.5 million visits were made to physician offices in the United States, an overall rate of 314.4 visits per 100 persons. From 1992 through 2001, the visit rate for persons 45 years of age and over increased by 17%, from 407.3 to 478.2 visits per 100 persons. The mean age of patients at each office visit has steadily increased from 1992 through 2001 as has the mean number of diagnoses rendered and the overall drug mention rate. The visit rate to physician offices in metropolitan statistical areas (MSAs) (338.3 visits per 100 persons) was significantly larger than the rate in non-MSAs (218.0 visits per 100 persons). Females had a higher visit rate compared with males, and white persons had a higher rate than black or African-American persons. Half of all office visits were to the patient's primary care physician (PCP). Of the visits to physicians other than the patient's PCP, about one-third (32.6 percent) were referrals. About 1 in

10 office visits were made by new patients (11.8 percent), down 20% since 1992. More than one physician shared the care for the patient's condition at about one-fifth of the office visits. Of all visits made to offices in 2001, 58.8 percent listed private insurance as the primary expected source of payment, followed by Medicare (21.8 percent) and Medicaid and/or State Children's Health Insurance Program (7.2 percent). For preventive care visits, the female visit rate was over 75% higher than the rate for males (67.1 versus 37.7 visits per 100 persons). Essential hypertension, arthropathies, acute upper respiratory infection, and diabetes mellitus were the leading illness-related primary diagnoses. There were an estimated 99.8 million injury-related visits in 2001, or 35.6 visits per 100 persons. Diagnostic and screening services were ordered or provided at 82.8 percent of visits, therapeutic and preventive services were ordered or provided at 41.4 percent of visits, and medications were prescribed or provided at 61.9 percent of visits. On average, 2.4 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 cardiovascular-renal drugs (14.7 percent of mentions) and pain-relieving drugs (12.1 percent of mentions). A physician was seen at a majority of visits (95.8 percent), and a registered or licensed practical nurse was seen at 31.3 percent of visits. From 1992 through 2001, changes were observed in the leading diagnoses, therapeutic drug classes, and drug mentions.

Physician estimates revealed that primary care physicians were twice as likely as specialists to make home visits during an average week of work; when they conducted them, they made twice as many (6 versus 2–3 visits per week) as specialists. Approximately 3 in 10 physicians reported not accepting new capitated, privately insured patients, whereas only 6.8 percent did not accept noncapitated, privately insured patients.

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

## Introduction

The National Ambulatory Medical Care Survey (NAMCS), which began in 1973, collects data on the utilization of ambulatory medical care services provided by office-based physicians. It was conducted annually until 1981, again in 1985, and resumed an annual schedule in 1989. The NAMCS is complemented by the National Hospital Ambulatory Medical Care Survey (NHAMCS), which was inaugurated in 1992 to expand the scope of data collection to the medical services provided by hospital outpatient and emergency departments. Together, NAMCS and NHAMCS data provide an important tool for tracking ambulatory health care utilization in the United States. The NAMCS and NHAMCS are part of the National Health Care Survey, which measures health care utilization across various types of providers. More information about the National Health Care Survey can be found at the National Center for Health Statistics (NCHS) Internet address: [www.cdc.gov/nchs/nhcs.htm](http://www.cdc.gov/nchs/nhcs.htm). More information on the 2001 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 2001. Physician practice, patient, and visit characteristics are described. Additional information on the continuity of care in office visits is also presented and includes referral status, visits in the past 12 months, episode of care, whether the physician was the primary care provider, and whether other physicians share care for the patient's problem or diagnosis. In addition, estimates of practice characteristics for office-based physicians are presented.

## Data Highlights

### Office visit estimates

- In 2001, 880.5 million visits were made to physician offices, about 3.1 visits per person.
- From 1992 through 2001, the visit rate for persons 45 years of age and over increased by 17%, from 407.3 to 478.2 visits per 100 persons.
- There was a positive linear trend in the average age of patients at office visits, increasing from 40.0 years in 1992 to 44.6 years in 2001. The relative share of office visits by persons 45 years old and over increased from 42.3 to 53.1 percent, up 26%.
- The visit rate for white persons (3.4 visits per person) was higher than for black or African-American persons (1.9 visits per person).
- Private insurance was the most frequent source of payment at 58.8 percent of all visits, and government sources (Medicare and Medicaid combined) accounted for 29.0 percent of visits.
- From 1992 through 2001, the percent of visits by patients with private insurance increased, and the percent of visits where there was no third-party payer decreased.

### Continuity of care

- Half of all office visits were to the patient's primary care physician.
- About one-third of visits to physicians other than the patient's primary care physician were referrals.
- Established patients accounted for 86.8 percent of office visits and of these visits, 85.7 percent were made by patients who had at least one previous visit within the past 12 months.
- Of visits by established patients, 7.5 percent had no visits within the previous 12 months, and 26.4 percent had six or more visits within the previous 12 months.
- The percent of visits by new patients decreased by 20% from 1992 to 2001.

### Services provided

- The rate of preventive care visits was higher for females than for males and for white than for black or African-American persons.
- Diagnostic and screening services were ordered or provided at 82.8 percent of visits, and counseling and/or education and/or therapeutic services were ordered or provided at 41.4 percent of visits.
- From 1992 through 2001, visits with any mention of a diagnostic and/or screening service increased by 28%, nonmedication therapy or counseling increased by 34%, and any surgical procedure increased by 81%.
- About 1.3 billion drugs were prescribed or provided at 61.9 percent of office visits. Although the percent of visits with any drug mention did not change, the average drug mention rate increased by 22% from 1992 to 2001.
- A physician was seen in a majority of visits (95.8 percent), and a registered or licensed practical nurse was seen in 31.3 percent of visits.

### Physician practice estimates

- One-half of office-based physicians were in primary care specialties, 22.1 percent were in surgical specialties, and 27.6 percent were in medical specialties.
- Approximately one-third of office-based physicians were in solo practice, 40.8 percent were in a single-specialty group practice, and 25.9 percent were in a multispecialty group practice.
- During an average week of work, the average physician in office-based practice had 80 office visits, 16 telephone consults, 13 hospital visits, 0.9 house calls, and 0.5 e-mail consultations.
- About 17.8 percent of physicians made house calls during a typical week of work. Primary care physicians were twice as likely as specialists to conduct house calls and when they made them, they made twice as many (6 versus 2–3 visits a week) as specialists.
- Physicians in nonmetropolitan statistical area (non-MSA) areas were

twice as likely to make house calls compared with physicians in MSAs (35.1 percent versus 14.9 percent).

- Most physicians report accepting new patients (94.8 percent), but they vary in their willingness to do so; it depends on the expected source of payment. Thirty percent of all physicians reported not accepting new capitated, privately insured patients, and only 6.8 percent did not accept noncapitated, privately insured patients.
- Approximately 10 percent of physicians report not having any managed care contracts, and 35.1 percent reported having more than 10 contracts.
- Compared with 1992, office-based physicians were more likely to have managed care contracts, less likely to be in a solo practice, and have a lower percent of their weekly patient encounters occur during hospital rounds.

## Methods

The data presented in this report are from the 2001 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 25, 2000, through December 23, 2001. The target universe of the NAMCS includes visits made in the United States to the offices of nonfederally employed physicians (excluding those in the specialties of anesthesiology, radiology, and pathology) who were classified by the American Medical Association (AMA) and the American Osteopathic Association (AOA) as "office-based, patient care." Visits to private, nonhospital-based clinics and 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; 1,910 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 office visits occurring during a randomly assigned 1-week reporting period. The weighted response rate for in-scope physicians was 64.7 percent, and a total of 24,454 Patient Record forms was completed. The “Technical Notes” 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” at the end of this report 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 approximations in SUDAAN, which take into account the complex sample design of the NAMCS (4). Data on physician office utilization rates from 1992 through 2001 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, and data-processing operations and medical coding were performed by Analytical Sciences, 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 1.4 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 Census Bureau monthly postcensal estimates of the civilian noninstitutional population of the United States as of July 1, 2001. 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.

## Results

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

### Office visit estimates

There were an estimated 880.5 million visits to office-based physicians in 2001, about 3.1 visits per person. Although the population of the United States has increased by 12% since 1992, the number of visits to physician offices increased by 16%, from 762.0 million to 880.5 million visits annually (5). The office visit utilization rate has increased gradually since 1992 with a 17% increase in visit rates for persons 45 years of age and over. 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 1. About 60 percent of the visits were to physicians in the specialties of general and family practice, internal medicine, pediatrics, and obstetrics/gynecology. The distribution of visits is similar to the NAMCS estimated distribution of practicing physicians in 2001 with several exceptions. Pediatricians received 12.6 percent of visits, but accounted for only 9.7 percent of physicians. General and family practitioners represented 18.4 percent of office-based physicians, but had 23.9 percent of the patient encounters. Conversely, psychiatrists comprised 5.7 percent of office-based physicians, but accounted for only 3.1 percent of the visits. Table 1 also shows that doctors of osteopathy received 54 million visits during 2001, or 6.1 percent of all office visits. Visits to osteopathic physicians occurred at a rate of 19.3 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 (368.6 visits per 100 persons) was significantly higher than the rate in the South (288.3 visits per 100 persons). The visit rate to physician offices located in MSAs (338.3 visits

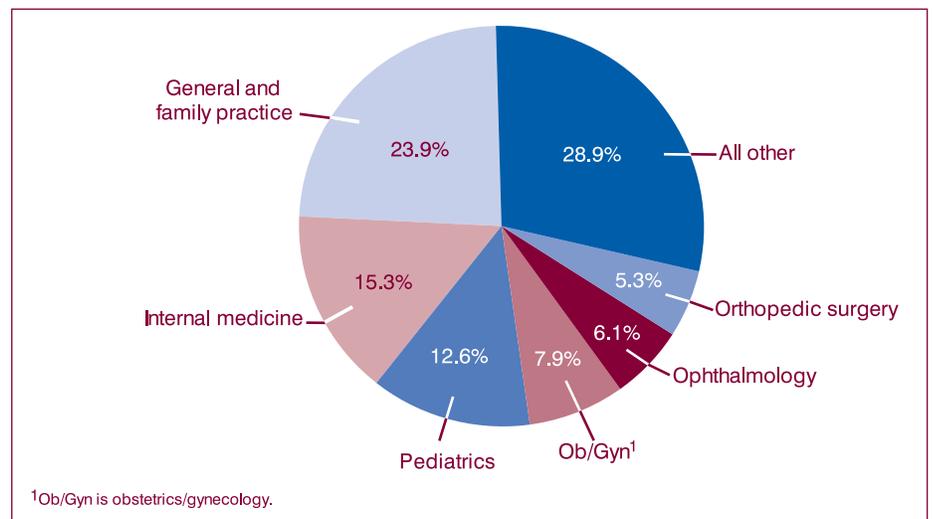
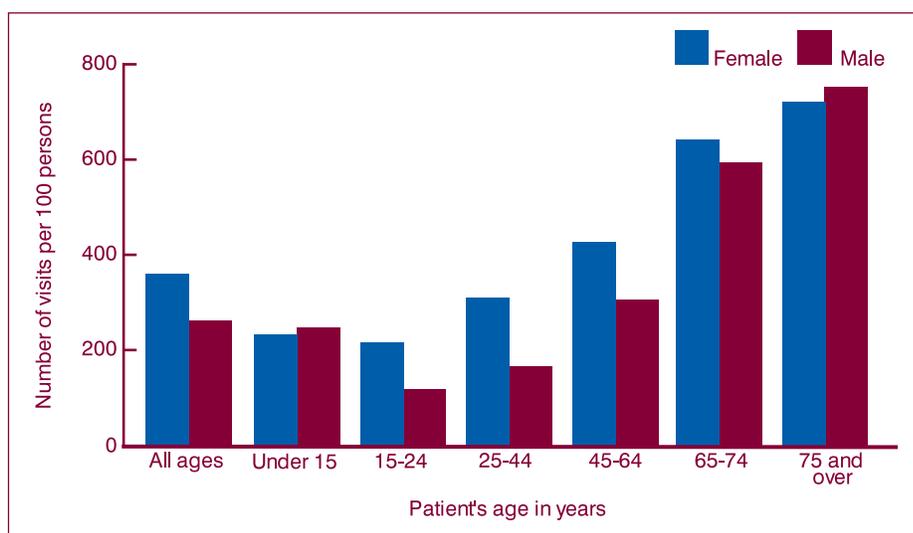


Figure 1. Percent distribution of office visits by physician specialty: United States, 2001

per 100 persons) was significantly larger than the rate observed in non-MSAs (218.0 visits per 100 persons). This difference contrasts with 2001 outpatient department utilization rates, which did not significantly vary as a function of metropolitan status (1). The rate variations between surveys is one example of how different ambulatory medical settings serve different types of patients for their health care needs.

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 2001, 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 are displayed in [table 2](#). As a group, 86.1 percent of visits to physicians in the specialties of general and family practice, internal medicine, pediatrics, and obstetrics/gynecology and 90.1 percent of visits to physicians in specialty care were made to practices that were owned either by the physician or a physician group (data not shown). The majority of office visits (67.4 percent) were made to physicians engaged in group practice, and 32.6 percent of the visits were made to solo practitioners. ([table 2](#)) More visits were made to physicians in practices with 2–9 physicians (55.7 percent) compared with visits to large practices with 10 or more physicians (11.7 percent). A new question added to the survey in 2001, which determined the presence of multiple specialties in group practices, is also displayed in [table 2](#). Significantly more visits to group practices were characterized as single specialty (41.7 percent) compared with a multispecialty (25.6 percent).

*Patient characteristics*—Office visits by patient's age, sex, and race are shown in [table 3](#). As in previous years, females made the majority of office visits during 2001. The percent of visits was higher for females compared with males across all age groups except for

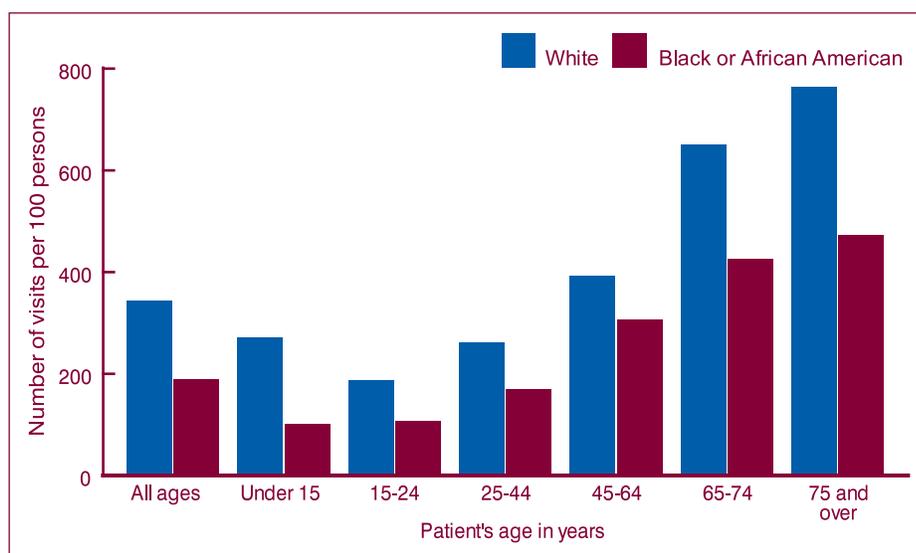


**Figure 2. Annual rate of visits to office-based physicians by patient's age and sex: United States, 2001**

persons under 15 years of age. Sex differences were also observed for visit rates between 15 and 64 years of age. As age increased, the number of patient visits rose. The positive effect of age on physician office utilization is shown in [figures 2 and 3](#).

White persons represented 81 percent of the U.S. civilian noninstitutional population in 2001, but made 88.3 percent of all physician office visits. For the first time, physician office visits by Asians and Native Hawaiians or other Pacific Islanders are presented separately because census estimates for these populations became available.

Overall, the visit rate for white persons (342.6 visits per 100 persons) was significantly higher than for black or African-American persons (189.4 visits per 100 persons) and Asians (263.9 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, visit rates by race can vary by type of health care setting utilized. Data presented in the 2001 NHAMCS outpatient department summary indicate that the visit rate for black or African-American persons (48.8 visits per 100 persons) was higher than for white



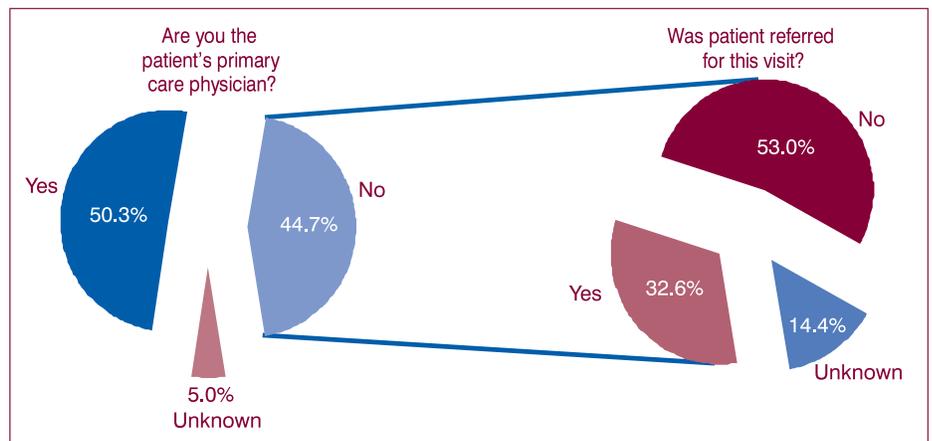
**Figure 3. Annual rate of visits to office-based physicians by patient's age and race: United States, 2001**

persons (27.9 visits per 100 persons) (1). Visits made by patients identified as only Asian accounted for 3.3 percent of all physician office visits, and patients designated as American Indian or Alaska Native made less than 1 percent of 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. Based on changing need and available resources, the process optimizes outcomes in the health status of patients. It may involve professionals from many different disciplines within multiple systems. To better understand continuity of care, new questions not included in previous survey years were added to the Patient Record form (figure 1). These questions included whether the visit was the first or a followup visit for a problem, the number of visits by established patients during the past 12 months, and whether other physicians shared care for the patient's problem. In addition, two items—whether the visit was to the patient's primary care physician and whether another physician referred the patient—were changed to clarify when the visits were referred to a physician other than the patient's primary care physician.

In 2001, approximately 50 percent of physician office visits were to the patient's primary care physician and/or provider (PCP), 44.7 percent were to physicians other than the patient's PCP, and at 5.0 percent of the visits it was unknown if the physician was the PCP (table 4). Seeing a PCP is often required by HMOs before a referral can be made to a specialist. In 2001, 14.6 percent of all visits were referrals to a non-PCP. Visits by new patients were more likely to be referrals than visits made by established patients (46.1 percent versus 10.4 percent). Data on visits to physicians who were not the patient's PCP indicated that approximately one-third (32.6 percent) were referrals, indicating collaboration of care (figure 4).

Other factors influencing referral status include physician specialty



**Figure 4. Percent distribution of physician office visits by primary care provider status and referral status: United States, 2001**

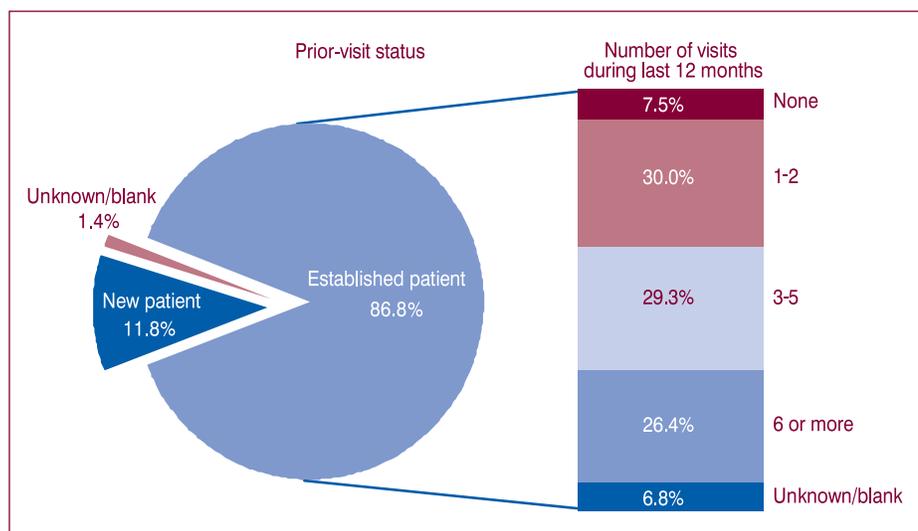
(table 5). The specialties with the most frequent referrals include general surgery (57.7 percent) and neurology (51.7 percent). Self-referral occurred most frequently for visits to the specialties of obstetrics and gynecology (54.0 percent), ophthalmology (56.3 percent), dermatology (49.4 percent), and psychiatry (58.5 percent).

Continuity of care was also examined by looking at whether the patient had seen the physician previously, if other physicians shared medical care, and information about the episode of care. The majority of office visits were made by established patients (86.8 percent) who had seen the physician on a prior occasion (table 6). Overall, 18.3 percent of physician office visits were made by patients who had not visited the practice in the past year, either because it had been over a year since an established patient visited (6.5 percent) or because the patient was new to the practice (11.8 percent). At 22.9 percent of visits, the patient had been to the physician six or more times previously in the last 12 months. Only 16.4 percent of visits to surgical specialties had six or more visits in the past year, and visits to psychiatrists and obstetricians and/or gynecologists had the highest percent of visits with six or more previous visits (46.1 and 32.2 percent, respectively) (data not shown). Table 6 also shows that at approximately one-fifth of the visits in 2001, the sampled physician shared care for the patient's condition with another physician. Close to 30 percent of visits

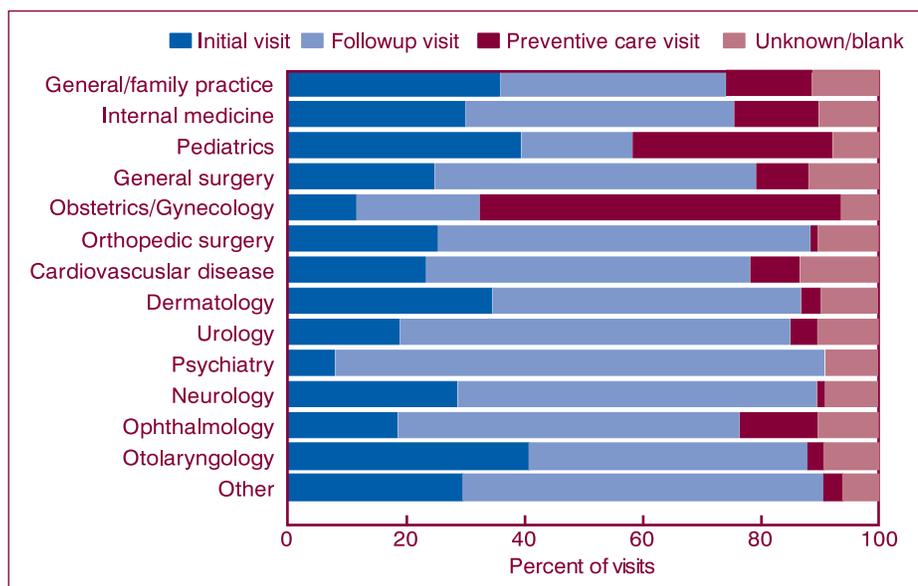
were for an initial problem, and 44.3 percent were for followup visits for the problem. For 16.8 percent of the visits, questions regarding episode of care were not asked because the major reason for visit was preventive in nature (see major reason for visit for more information on this variable). As expected, visits made by established patients were more likely to be followup visits for a problem (51.3 percent), and only 4.0 percent were classified as followup visits for new patients. Initial visits for a problem were made by 24.2 percent of established patients (data not shown).

Figure 5 presents a portion of the data in table 6 in a slightly different way by showing the number of visits in the past 12 months made by established patients. In a majority of these visits, it was reported that the patient had seen the physician at least once in the past 12 months (85.7 percent), and at 26.4 percent of visits by established patients, six or more visits within the prior 12 months were made. At 6.8 percent of the visits by established patients, the number of past visits was unknown.

Episode of care distributions varied by physician specialty (figure 6). Visits to general and/or family practice physicians were just as likely to have had an initial visit (35.9 percent) as a followup visit (38.2 percent) as were visits to pediatricians (initial visit (39.5 percent)) versus preventive care visit (33.9 percent). In contrast visits to obstetricians/gynecologists were more likely to be for preventive care (61.2



**Figure 5. Percent distribution of physician office visits by prior-visit status and past visits by established patients: United States, 2001**



**Figure 6. Percent distribution of physician office visits by episode of care and physician specialty: United States, 2001**

percent). For each of the remaining specialties not mentioned, followup care for a problem was the most frequent episode of care listed at office visits.

**Primary expected source of payment**—Private insurance was cited most frequently as the primary expected source of payment (58.8 percent of visits). Government sources combined (Medicare and Medicaid and/or State Children's Health Insurance Program (SCHIP)) accounted for 29.0 percent of office visits, most of which were Medicare (table 7). Furthermore, among visits by established patients, those

relying on Medicaid and/or SCHIP (91.2 percent), worker's compensation (89.6 percent), Medicare (87.6 percent), private insurance (85.2 percent), self-pay (84.3 percent), and no charge and/or charity (96.1 percent) were all more likely to have had at least one visit to a physician's office during the past 12 months (data not shown).

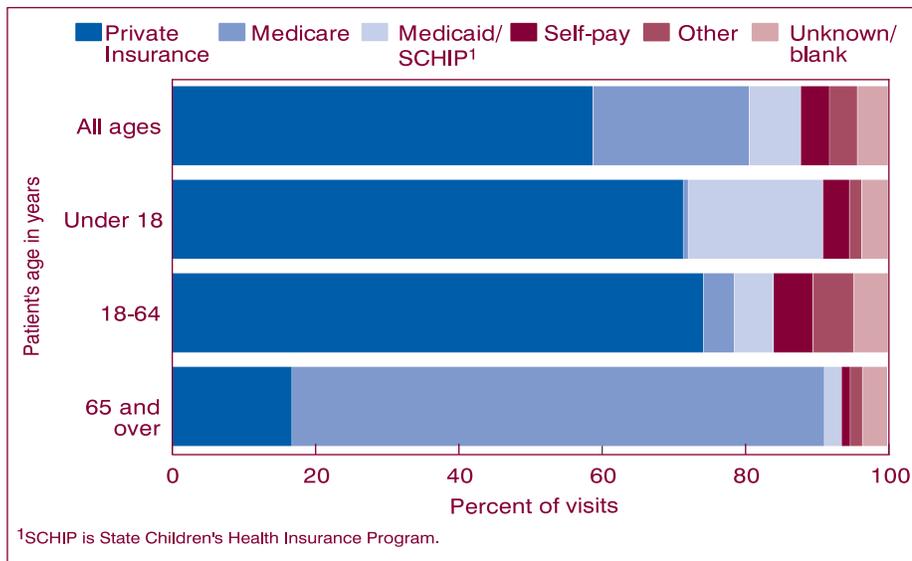
As expected, source of payment varied by patient age (figure 7). Private insurance was the expected source of payment at a majority of visits by patients under age 65 and only represented 16.8 percent of visits by

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 (74.6 percent). Private insurance accounted for a larger share of visits in MSA areas as opposed to non-MSA areas (61.2 versus 44.3 percent, respectively). Medicare and Medicaid accounted for a greater share of visits in non-MSA areas as opposed to MSA areas (33.1 and 10.8 percent in non-MSA areas versus 19.9 and 6.6 percent in MSA areas) (data not shown).

**Patient's principal reason for visit**—The principal reason for visit is the main complaint, symptom, or reason listed 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 3- or 4-digit classification code (for example, S845- "Symptoms of skin mole" is further detailed to S845.1- "Change in size and color" and S845.2- "Bleeding mole").

In 2001, one-half of all visits were made for reasons classified as symptoms. Some of the more prominent symptoms included musculoskeletal (10.3 percent), respiratory (9.2 percent), and symptoms referable to the skin, hair, and nails, which accounted for 5.3 percent of all visits.

The 20 most frequently mentioned principal reasons for visit, representing 41.2 percent of all visits, are shown in table 9. General medical examination



**Figure 7. Percent distribution of office visits by primary expected source of payment, according to patient age: United States, 2001**

was the most frequently mentioned reason for visit at 7.8 percent of all office visits, and cough was the most frequently mentioned reason regarding an illness or injury (3.1 percent). Eighteen of the top 20 reasons for office visits in 2001 were also listed among the 20 most frequently mentioned reasons in 2000, albeit in a different order. It should be noted that estimates differing in ranked order may not be significantly different from each other.

*Major reason for this visit*—This item provides a better picture of the general nature of the office visit—whether for an acute problem; routine visit for a chronic problem; visit from a flare-up of a chronic problem; pre- or postsurgery 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 35.3 percent of the visits, and routine chronic problems accounted for 28.8 percent (table 10). Approximately 17 percent of all visits were for preventive care, and there were no sex or race differences. 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.

The female visit rate for preventive care was significantly greater than the rate for males (67.1 visits per 100 females versus 37.7 visits per 100 males) (table 11). It should be noted that these sex differences reflect, in part, the fact that preventive care includes prenatal examinations that usually include multiple visits within 1 year. In 2001, 18.8 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 (54.5 visits per 100 females) compared with males (37.7 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 and the elderly (65 years old and over). The preventive care visit rate for white persons was close to double that for black or African-American persons (56.5 versus 31.7 visits per 100 persons). In outpatient departments, this finding is reversed, and the preventive care visit rate for black or African-American persons (11.0 visits per 100 persons) is more than twice as high as the visit rate for white persons (3.7 visits per 100 persons) (1). Uninsured persons (as measured by self-pay and charity visits)

had a lower preventive care visit rate compared with persons with private or public health insurance, placing them at a 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 primary diagnosis using the major disease categories specified in the ICD-9-CM (7). 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 16.8 percent of all office visits. Diseases of the respiratory system (11.1 percent) and diseases of the nervous system and sense organs (9.3 percent) were also prominent categories on the list.

The 20 most frequently reported primary diagnoses for 2001, accounting for 41.7 percent of all physician office visits, are shown in table 13. The categories in this table are also based on the ICD-9-CM (7). Four leading illness diagnoses include essential hypertension, arthropathies and related disorders, acute upper respiratory infections (excluding pharyngitis), and diabetes mellitus. Eighteen of the top 20 listed diagnoses in 2001 were also ranked in the top 20 in 2000.

*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 (7). 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 99.8 million injury- or poisoning-related office visits in 2001, representing 11.3 percent of all visits and yielding a rate of 35.6 visits per 100 persons (table 14). The injury-related visit rate increased significantly with patient age. The rate for patients 75 years and over (63.8 visits per 100 persons) was more than double that of the three age groups under 45 years of age. The overall 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 (39.0 visits per 100 persons) was higher than the injury-related rate for black or African-American persons (22.3 visits per 100 persons) and persons of "other" races (18.9 visits per 100 persons). Small sample sizes preclude analysis by age within some race groups. Further information on injury visits to physician offices is available on the public-use file, including E-codes and a narrative of the cause of injury. If all the injury visits are combined into a separate category, then the major reason for visit distribution changes slightly to 33 percent for chronic illnesses, 30 percent for acute illnesses, 16 percent for preventive care, 11 percent for injuries, and 5 percent for pre-/post-surgical consultations (data not shown).

Office-based visits by intent and mechanism of the first-listed external cause-of-injury codes (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). Fifty-five percent of injury visits were for unintentional injuries. Compared with all other categories presented in the table (excluding "other" and blank classifications), falls were cited most frequently and accounted for 12.6 percent of all injury visits. Approximately 6 percent of injury visits were due to complications from medical

and surgical procedures. Cause of injury was not recorded for 38.0 percent of injury-related visits, so the observed distribution could change with more complete reporting. However, even with the increase in percent of injury visits missing a cause of injury from 2000 to 2001, the leading cause of injury remained identical to the distribution observed in 2000 (9).

*Patient Record form variation*—In 2001, two versions of the Patient Record form were used for NAMCS data collection. One-half of sampled physicians were asked to complete a more detailed version of the Patient Record form that included questions on both sides of the form, and the other half were administered the usual shorter version of the Patient Record form (see figure 1 in the "Technical Notes"). A major difference between the questions administered on the two forms was the inclusion of expanded checkboxes on the longer form for selected items such as diagnostic and/or screening services, counseling and/or education and/or therapy services, surgical procedures, medications and injections, visit disposition, and providers seen. For this report, most information presented is based solely on items (and subitems) common to both forms. However, information on diagnostic and/or screening services (table 16) includes data collected differently on the long and short versions of the Patient Record form. That is, information recorded in checkboxes on the "long form," as well as corresponding write-in responses from the "short form" were first compared for similarity in reporting levels. Only services with similar estimates were combined and presented below. Although one form had 44 checkboxes and the other only had 18 checkboxes and 4 write-ins, there was no difference in the percent of visits with any (or no) diagnostic services mentioned between the two forms. A report comparing the response patterns for the two versions of the Patient Record form will be published separately.

*Diagnostic and screening service*—Statistics on various diagnostic and screening services ordered or provided by physicians during the office

visit are displayed in table 16. At least one such service was provided at 82.8 percent of office visits. Blood pressure checks occurred at 47.8 percent of visits. Visits by females were more likely than visits by males to have any imaging performed. Some of the most frequent laboratory tests ordered included complete blood count (8.1 percent), urinalysis (7.2 percent), and cholesterol (4.9 percent). At 15.7 percent of the visits, no diagnostic or screening services were ordered or provided, and information on the presence of such services was missing at 1.5 percent of visits.

*Counseling/education and therapeutic services*—Therapeutic and preventive services (not including medication therapy, which was reported separately) were ordered or provided at 41.4 percent of all office visits during 2001. Visits that included counseling or education related to diet and/or nutrition (11.6 percent) and exercise (8.2 percent) were made more frequently when compared with the other identified categories (table 17). Except for growth and/or development, 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.

*Procedures*—In item 8 of the Patient Record form, physicians were instructed to record up to two ambulatory surgical procedures 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 ambulatory 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 volume 3 of the ICD-9-CM (7). Overall, there were 144 million therapeutic procedures ordered or performed.

*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,

immunization, 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 (10). 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 mention are termed “drug visits” in the NAMCS.

Data on medication therapy are shown in tables 19–23. Medication therapy was reported at 545.4 million office visits (table 19). In 2001, the number of visits with a drug mention (61.9 percent) decreased from that observed in 2000 (66.1 percent).

There were about 1.3 billion drugs mentioned at visits to office-based physicians during 2001. The overall drug mention rate for office visits in 2001 was not significantly higher than the rate observed in 2000 (1.5 mentions per office visit for each year and 2.4 mentions per drug visit). Data on the number of 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 80.6 percent for psychiatrists to 21.6 percent for general surgeons.

Drug mentions are displayed by therapeutic class in table 21. This classification is based on the major therapeutic categories used in the *National Drug Code (NDC) Directory*, 1995 edition (11). It should be noted that some drugs have more than one therapeutic application. In these cases, the drug was classified under its primary therapeutic use. Cardiovascular-renal drugs were the most frequently mentioned therapeutic class at office visits (14.7 percent of all mentions), and they have been ranked highest for mentions in the past 10 years. The new item on past visits to the physician within the last 12 months can help to clarify the frequency of therapeutic classes mentioned at office visits. As the number of past visits to the physician

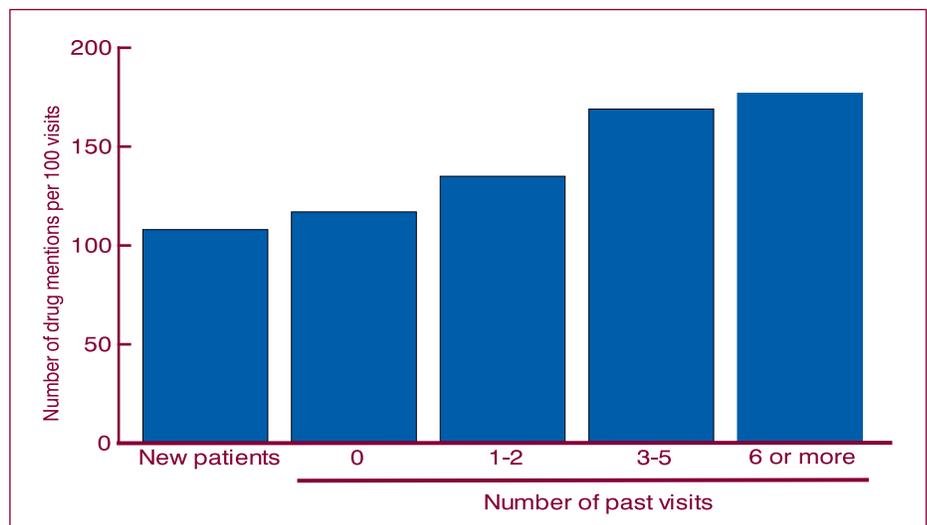


Figure 8. Annual drug mention rates by number of past visits within last 12 months: United States, 2001

increases, so does the average drug mention rate (figure 8).

The 20 most frequently used generic substances in 2001 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 in 2001, occurring in 3.2 percent of drug mentions.

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 21.2 million mentions (1.6 percent of the total) and was followed by Celebrex, Vioxx, Claritin, and Lasix. Seventeen of these drugs were among the top 20 drug entry names mentioned in 2000. Two of the top three medications, Celebrex and Vioxx, were newly marketed since 1997.

*Providers seen*—In this item, staff were asked to check all of the providers seen during the visit. Overall, 95.8 percent of visits were attended by a physician (table 24). Medical and/or nursing assistants were seen at

20.5 percent of office visits. Midlevel providers, such as physician assistants or nurse practitioners and/or midwives, were seen at a combined 3.5 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 (60.6 percent), patients were told to return to the office by appointment (table 25). “Return if needed, and “no followup planned, were indicated at 25.1 and 9.9 percent of visits, respectively. Patients were referred to other physicians at 5.6 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, or 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 2001, 89.2 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 37.1 million visits, or 4.2 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. Overall, the mean time spent with a physician was 18.6 minutes. The visit duration for psychiatrists had the largest variability (a difference of 26.5 minutes between the 3rd and 1st quartiles).

**Trends in office visits**—From 1992 through 2001, visits to office-based physicians changed with respect to several key patient and visit characteristics. The mean patient age increased from 40.0 to 44.6 years, up 12%. In 1992, approximately 42.3 percent of visits were made by persons 45 years of age and over (5). By 2001, this percent increased to 53.1 percent, up 26%. In the civilian noninstitutionalized population from 1992 through 2001, the percent of persons who were 45 years and over increased by 11%. It was affected by a 19% increase in persons 45–64 years of age. The relative share of office visits for age groups under 45 years decreased between 18% and 21% (figure 9). Older patients historically have more complicated conditions with more comorbidities, more chronic conditions, and more treatment involving multiple medications (12). As more of the baby boom generation reaches the 45–64 age group, there will be even larger gains in physician office services over the next 10 years.

In addition to proportional increases, visit rates for persons 45 years of age and over significantly increased since 1992 (figure 10). In 2001, the visit rate per 100 population for this age group was 478.2, up 17% from the 1992 rate of 407.3. The visit rate for age groups under 45 years did not change from 1992 to 2001 (data not shown). The primary diagnoses accounting for the majority of the rate increase among persons 45 years of age and over include ICD-9-CM codes that fall under the supplementary classification (V01–V82), musculoskeletal and connective tissue (710–739), endocrine, nutritional, and metabolic diseases and immunity disorders (240–279), and symptoms, signs, and ill-defined conditions

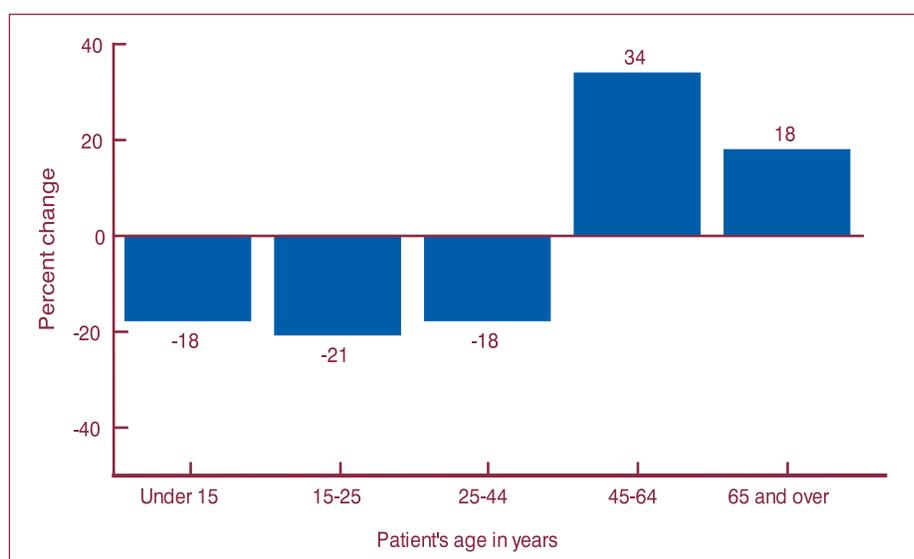


Figure 9. Change in percent distribution of office visits by patient age: United States, 1992 and 2001

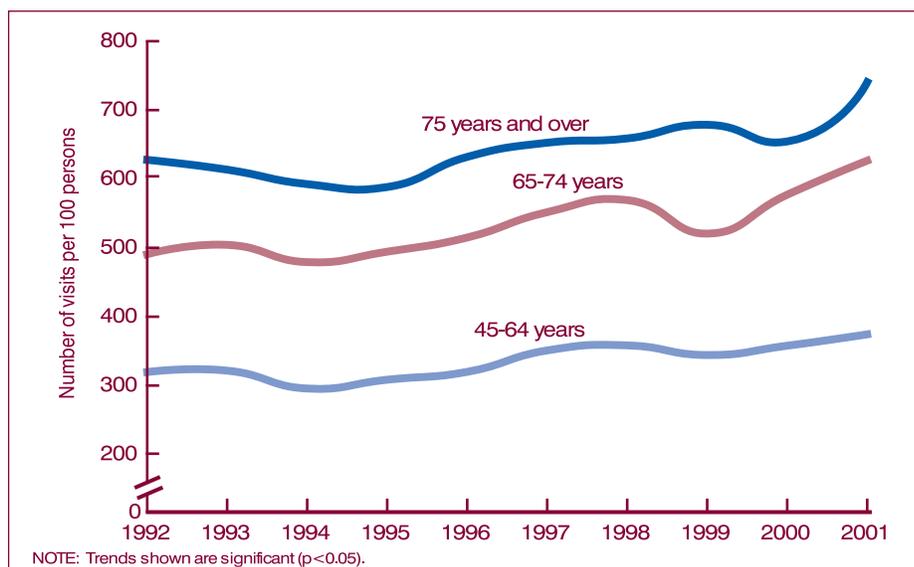


Figure 10. Trends in rate of visits to physician offices by persons 45 years of age and over: United States, 1992–2001

(780–799). Examining the primary diagnoses under the supplementary classifications (V01–V82) more closely, the visit rate for health services for specific procedures and aftercare (V50–V59) has increased 129% and the visit rate for followup examinations has increased 97% since 1992. This is not surprising because other research has shown that the average length of a hospital stay has decreased steadily since 1970, mainly due to alternatives to hospitalization in the form of postacute care. Specifically, data from the National Hospital Discharge Survey (NHDS) indicate that between 1992 and

2001, the average length of hospital stays declined from 6.5 to 5.0 days for patients 45–64 years of age, and from 8.2 to 5.8 days for patients 65 years of age and over. Although sources of post-acute care may vary, it appears that physician offices represent one setting where this type of care is being performed more frequently for patients 45 years of age and over. Increases in post-acute care at office visits account for almost 10 percent of the observed increase in physician office utilization for this age group (data not shown).

The relative aging of those visiting the physician office also demonstrates

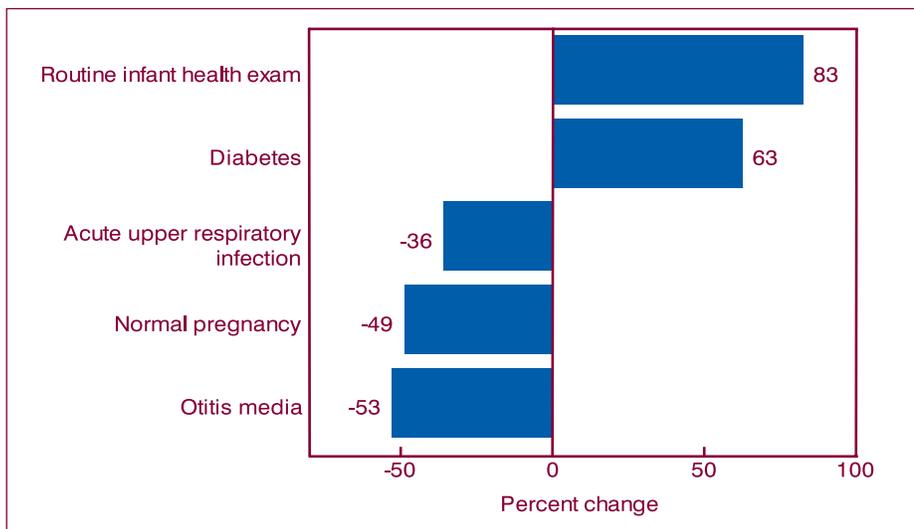


Figure 11. Change in percent of leading primary diagnoses: United States, 1992 and 2001

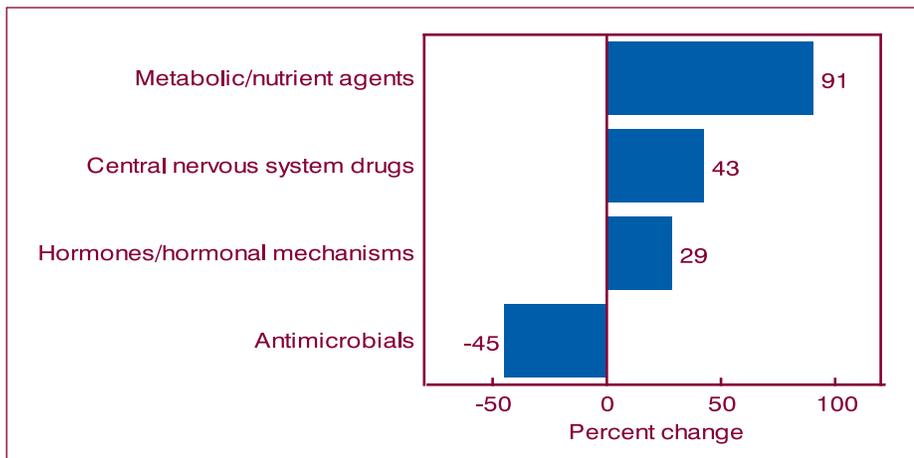


Figure 12. Change in percent of drug mentions by selected therapeutic classes: United States, 1992 and 2001

its effect on other visit characteristics including diagnoses rendered and the distribution of the kinds of medications prescribed. Since 1992, the mean number of diagnoses rendered at the visit increased from 1.44 to 1.63, up 13%. Changes have also been observed in the leading primary diagnoses, which can be linked to the aging of the patient population. In 1992, otitis media accounted for 3.4 percent of office visits compared with 1.6 percent in 2001 (down 53%). However, the percent of visits by children under 15 years of age decreased by 22%. Routine health examinations for infants and children are still among the top five diagnoses, but visits have increased by 83% since 1992 (figure 11). In 1992, diabetes was not among the top 10 diagnoses and

accounted for 1.9 percent of visits. In 2001, diabetes was among the five leading diagnoses and accounted for 3.1 percent of visits, up 63%. The percent of visits for normal pregnancy decreased, (down 49%). The visit rate by women of child-bearing age also decreased (data not shown).

The drug mention rate increased from 1.21 in 1992 to 1.43 mentions per visit in 2001 (up 22%). For this trend analysis, the first five drug mentions were used to calculate the drug mention rate because starting in 1995, the Patient Record form requested up to six medications. The relative percent of drug mentions for metabolic and/or nutrient agents, central nervous system drugs, and hormones increased, whereas the percent of drug mentions for

antimicrobials decreased (figure 12). The observed decrease in otitis media visits may have contributed to the lower prescription rate for antimicrobials, but prescription patterns for these drugs have decreased for reasons other than the patient age distribution. In the mid-1990s, increased attention was focused on inappropriate antimicrobial prescribing, which contributes to the development of antimicrobial resistance (13). Since that time, declines have been observed in antimicrobial prescribing for both children and adults (14). The increase in metabolic drugs is directly related to the increase in lipid-lowering drugs. The top five drugs prescribed in 1992, according to the name written on the Patient Record form, included Amoxicillin, Amoxil, Lasix, Ceclor, and Zantac. In 2001, Lipitor, Celebrex, Vioxx, Claritin, and Lasix were the top five drugs reported by physicians.

Most of the continuity-of-care items on the 2001 form are new or were not on the Patient Record form in 1992. However, one significant change observed since 1992 is the decrease in the percent of office visits made by new patients, from 14.7 percent in 1992 to 11.8 percent in 2001, down 20%. This may reflect two issues. One is the increasing reliance on the primary care provider for the majority of care, and the other is the aging of the patients seen because older patients tend to make more visits in a year to their physicians than do younger patients (data not shown). This is corroborated by the change observed in the principal reason for visit where the percent of visits for symptoms decreased, but the percent of visits for a specific disease (implying that a diagnosis had previously been given), diagnostic tests, and treatment all increased (data not shown).

Changes also occurred among services provided at doctor visits. There were more diagnostic services, counseling services, and surgical procedures ordered or provided in 2001 than in 1992. For example, in 1992, diagnostic and therapeutic surgical procedures (ICD-9-CM Volume 3 codes 01-86) were mentioned at 5.3 percent of visits, but in 2001, they were mentioned at 9.6 percent of visits, up 81% (data not shown) (7). One service that has

remained remarkably constant is the percent of visits with any mention of medication therapy (63.8 percent in 1992 and 61.9 percent in 2001).

Finally, there have been changes in the percent distributions for the expected source of payment for office visits. Wording of this item has varied over the years, but has remained constant since 1997 when only the primary source of payment was requested. Prior to that, more than one payment method could be chosen. From 1997 through 2001, the percent of visits with private insurance increased from 53.1 percent to 58.8 percent, up 11%. This is offset by the decline in percent of visits with self-pay, which changed from 7.7 percent in 1992 to 4.0 percent in 2001. The percent of visits paid by Medicare and Medicaid remained fairly constant between 1997 and 2001. The relative share of office visits where charity care was provided declined from 14.4 million in 1992 (1.6 percent) to 8.2 million in 1997 (1.0 percent), and to 3.1 million in 2001 (0.4 percent). Estimates from the National Health Interview Survey show that the percent of persons in the United States with private insurance and those who were uninsured remained fairly constant between 1997 and 2001 (about 70 and 15 percent, respectively) (personal communication).

### Physician practice estimates

As mentioned earlier, the NAMCS can provide 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, participating physicians were asked several questions about their practice such as other kinds of patient encounters besides office visits, 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 by the following major specialty categories of the physician: primary care, surgical

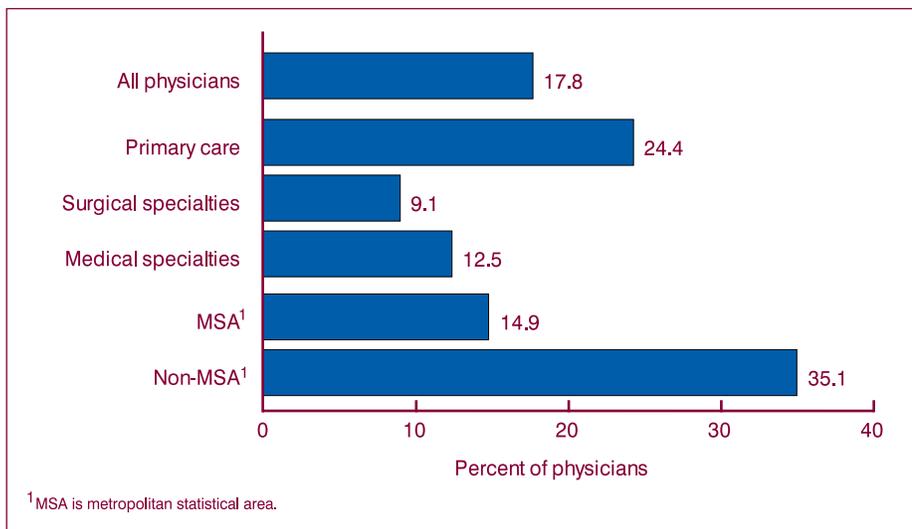
specialty, and medical specialty. See the “Technical Notes” for information on which specialties are included in these categories. The NAMCS weighted national estimate of office-based physicians (not including the specialties of radiology, anesthesiology, or pathology) in 2001 was 309,557 (SE=9,500). One-half of these physicians (50.3 percent) were in primary care specialties, 22.1 percent were in surgical specialties, and 27.6 percent were in medical specialties.

*Locations, type of practice, and volume*—The majority of physicians had only one in-scope office location (85.7 percent), and 14.3 percent had more than one office location where they saw patients. Primary care physicians were less likely to have multiple locations compared with specialists. In 2001, one-third of physicians were in solo practice, 40.8 percent were in single-specialty group practice, and 25.9 percent were in multispecialty group practice. There were a small number of solo practitioners who were also in group practices for some of their locations. However, they were considered in a group practice for this analysis. At the time of the induction interview, about 18.5 percent of the physicians expected not to see any patients during their randomly assigned 1-week reporting period. Another 17.0 percent saw patients for only 1 or 2 days during their week. Surgical specialists were less likely to see patients for 5 or more days in the office compared with the primary care or medical specialists ([table 28](#)). About 74.0 percent of office-based physicians were owners or part-owners of their practice, 22.0 percent were employees, and 4.0 percent were contractors (data not shown).

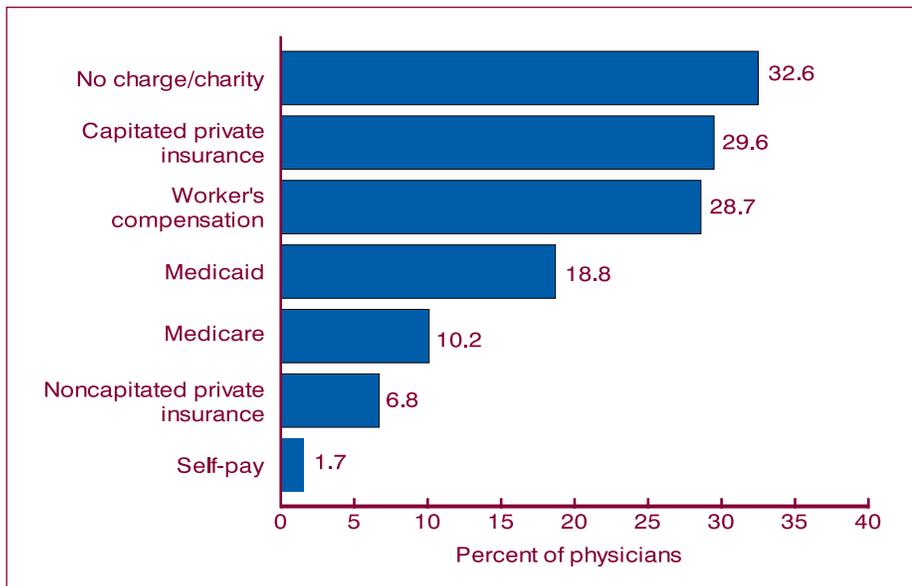
*Types of consultations*—The induction interviewer asked physicians about the numbers and kinds of consultations in an average week of work. An office-based physician, on average, had 80 office visits, 16 telephone consultations, 13 hospital visits, 0.9 house calls, and 0.5 E-mail consultations during an average week of practice (data not shown). The types and numbers of consultations varied by physician specialty ([table 28](#)). Three-

quarters of office-based physicians (77.1 percent) who saw any patients in the hospital during a typical week of work made an average of 17.0 hospital visits. Physicians in medical specialties made significantly more hospital visits than physicians in primary care or surgical specialties ([table 28](#)). Almost three-quarters of physicians talked with an average of 21.8 patients over the telephone. Primary care physicians, on average, had about twice as many telephone consultations as specialists. Approximately 17.8 percent of physicians made house calls (home visits) to an average of 5.0 patients in a typical week of work. The percent of physicians making house calls varied by specialty and MSA status ([figure 13](#)). Primary care physicians were twice as likely as specialists to make home visits and when they made them at all, made twice as many (6 versus 2–3 visits per week). In 2001, only 6.8 percent of physicians had any e-mail or Internet consultations with 2.8 percent making one or two consultations during a typical week of work (data not shown).

*Sources of practice revenue*—The visit level information presented in [table 7](#) indicated that in 2001, private insurance accounted for approximately 59 percent of office visits, and Medicare and Medicaid accounted for 21.8 percent and 7.2 percent of visits. The induction interview questions on the breakdown of patient care revenue (as opposed to visits) indicated that 49 percent of physician’s patient care revenue came from private insurance, 30 percent came from Medicare, and 10 percent came from Medicaid ([table 28](#)). This implies that government sources cover more of the physician’s revenue than their respective visit load. Primary care physicians reported a greater percent of revenue coming from private insurance compared with specialists ([table 28](#)). Data on percent of revenue was missing for 10–20 percent of physicians, depending on the source. Ten percent of office-based physicians reported having no managed care contracts in 2001. About one-third had 3–10 contracts, and another one-third had more than 10 contracts. On average, physicians had 15.4 contracts (data not shown). The number of managed care contracts did



**Figure 13. Percent of physicians with any home visits during the last complete week of work for office-based physicians: United States 2001**



**Figure 14. Percent of office-based physicians not accepting new patients by payment method: United States 2001**

not vary by physician specialty, but did vary by whether the physician was in a solo or group practice. Solo physicians were more likely than group physicians to have no contracts (17.9 versus 6.0 percent) with most solo physicians having 3–10 contracts. Physicians in group practices most often had more than 10 different contracts (data not shown). The number of managed care contracts was missing for about 10 percent of physicians.

*Accessibility to patient*—In 2001, about 5 percent of office-based physicians did not accept new patients (4.6 percent). However, the incidence of

accepting new patients varied by the prospective patient's insurance (table 28). Approximately 3 in 10 physicians reported not accepting new capitated, privately insured patients, and only 7 percent did not accept noncapitated, privately insured patients (figure 14). About 10 percent of physicians did not accept new Medicare patients. Nearly 20 percent did not accept new Medicaid patients, and about one-third of physicians did not accept new charity cases. These percents are about the same as those reported in 1999 (15). The likelihood of not accepting new Medicare, Medicaid,

worker's compensation, and charity cases was higher for physicians in MSAs than non-MSAs (data not shown). The likelihood of accepting new capitated patients was positively related to the number of managed care contracts maintained by the physician. That is, the more managed care contracts the physician had, the more likely he or she was to accept new capitated patients. However, the number of managed care contracts was not associated with the likelihood of accepting patients with other forms of insurance or charity care (data not shown).

*Trends in office practice arrangements*—Many of these items are new to the 2001 Physician Induction Interview, but the AMA periodically produces estimates of practice characteristics that indicate that the percent of physicians in solo practice is continuing to decline from 45.5 percent in 1991 to 38.0 percent in 1999 (16,17). NAMCS data show 33.3 percent in solo practice in 2001. Similarly, AMA data indicate that in 1992, the number of physicians with no managed care contracts was 30 percent, and the 2001 NAMCS data indicate that 10.0 percent had no managed care contracts (18). The NAMCS item on percent of physician revenue from managed care was missing about one-half of the time, but for the one-half of physicians who responded, they indicated that managed care contracts covered about 45.5 percent of revenue. The AMA reported that in 2001, about 40.8 percent of practice care revenue was from managed care contracts (19). Research has shown that in 1998, physician net income increased with more managed care contracts such that physicians with 16 or more contracts had a mean net income 40 percent higher than physicians with no managed care contracts (17). A recent study indicates that net physician income, adjusted for inflation, has declined for both primary care physicians (down 6%) and specialists (down 4%) between 1995 and 1999 (20). Cost and service constraints on physicians between private managed care and Medicare may have contributed to the decline. The risk to the physician may have proved larger than expected, yet market forces encourage physicians

to have managed care contracts. Finally, the NAMCS data support the AMA observations that the percent of physicians' workload in the hospital setting continues to decline. In 1982, 25 percent of a physician's patient care case workload was attending patients in the hospital, and in 1993 it was reduced to 19 percent (18). The 2001 NAMCS data reveal that only about 12 percent of office-based physicians' workload involves hospital rounds (data not shown). This coincides with declines in both hospital admission rates and average lengths of stay over the past 20 years (21).

For researchers interested in the progression toward electronic patient medical records, the 2001 NAMCS indicates that 18.2 percent of office-based physicians had automated medical records (table 28). This percent is fairly consistent across a variety of physician characteristics, including geographic region, MSA status, specialty, and physician age (data not shown).

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 2001 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](mailto: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, 2001**

Physician practice characteristic	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent	Number of visits per 100 persons per year <sup>1,2</sup>	Standard error of rate
All visits . . . . .	880,487	33,373	100.0	...	314.4	11.9
Physician specialty						
General and family practice . . . . .	210,186	18,798	23.9	1.8	75.0	6.7
Internal medicine . . . . .	134,317	14,271	15.3	1.5	48.0	5.1
Pediatrics . . . . .	111,285	9,199	12.6	1.0	<sup>3</sup> 184.2	15.2
Obstetrics and gynecology . . . . .	69,853	9,301	7.9	1.0	<sup>4</sup> 61.3	8.2
Ophthalmology . . . . .	54,038	4,742	6.1	0.5	19.3	1.7
Orthopedic surgery . . . . .	46,344	4,292	5.3	0.5	16.5	1.5
Dermatology . . . . .	37,883	4,445	4.3	0.5	13.5	1.6
Cardiovascular diseases . . . . .	27,883	3,890	3.2	0.4	10.0	1.4
Psychiatry . . . . .	27,058	3,025	3.1	0.3	9.7	1.1
General surgery . . . . .	19,600	3,376	2.2	0.4	7.0	1.2
Otolaryngology . . . . .	17,713	2,142	2.0	0.2	6.3	0.8
Urology . . . . .	16,488	1,542	1.9	0.2	5.9	0.6
Neurology . . . . .	10,743	903	1.2	0.1	3.8	0.3
All other specialties . . . . .	97,095	9,313	11.0	1.0	34.7	3.3
Professional identity						
Doctor of medicine . . . . .	826,529	33,568	93.9	0.8	295.1	12.0
Doctor of osteopathy . . . . .	53,958	6,452	6.1	0.8	19.3	2.3
Geographic region						
Northeast . . . . .	195,837	11,523	22.2	1.3	368.6	21.7
Midwest . . . . .	185,163	16,668	21.0	1.7	290.3	26.1
South . . . . .	287,214	20,048	32.6	1.8	288.3	20.1
West . . . . .	212,272	17,634	24.1	1.7	334.2	27.8
Metropolitan status						
MSA <sup>5</sup> . . . . .	759,130	31,365	86.2	1.8	338.3	14.0
Non-MSA <sup>5</sup> . . . . .	121,357	17,433	13.8	1.8	218.0	31.3

... Category not applicable.

<sup>1</sup>Visit rates 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 the "Technical Notes" for more detail.

<sup>2</sup>2001 population estimates of metropolitan statistical area status are preliminary figures based on Census 2000 data and were obtained through the Office of Research and Methodology and Division of Health Interview Statistics, NCHS.

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

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

<sup>5</sup>MSA 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, 2001**

Physician office characteristic	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits . . . . .	880,487	33,373	100.0	...
Employment status				
Owner . . . . .	663,550	29,277	75.4	1.8
Employee . . . . .	184,202	17,667	20.9	1.8
Contractor . . . . .	32,735	6,819	3.7	0.8
Ownership				
Physician/group . . . . .	772,026	32,714	87.7	1.5
Other health care corporation . . . . .	33,674	8,861	3.8	1.0
Other hospital . . . . .	22,585	6,550	2.6	0.7
Medical/academic health center . . . . .	*18,407	5,580	*2.1	0.6
HMO <sup>1</sup> . . . . .	18,056	5,043	2.1	0.6
Other <sup>2</sup> . . . . .	15,739	4,306	1.8	0.5
Practice size				
Solo . . . . .	287,250	19,380	32.6	2.1
2-4 . . . . .	303,623	23,515	34.5	2.2
5-9 . . . . .	187,052	18,753	21.2	1.9
10-39 . . . . .	84,248	11,505	9.6	1.3
40 or more . . . . .	*18,314	5,983	*2.1	0.7
Blank . . . . .	*	...	*	...
Type of practice				
Single-specialty group . . . . .	367,562	26,274	41.7	2.6
Multispecialty group . . . . .	225,675	21,956	25.6	2.1
Solo . . . . .	287,250	19,380	32.6	2.1
Office type				
Private practice . . . . .	786,320	32,153	89.3	1.6
Clinic/urgicenter . . . . .	68,859	14,057	7.8	1.5
Other <sup>3</sup> . . . . .	25,308	5,304	2.9	0.6

... Category not applicable.

\* Figure does not meet standard of reliability or precision.

<sup>1</sup>HMO is health maintenance organization.

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

<sup>3</sup>Other 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, 2001**

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 <sup>1</sup>	Standard error of rate
All visits . . . . .	880,487	33,373	100.0	...	314.4	11.9
Age						
Under 15 years . . . . .	146,683	9,211	16.7	0.9	242.7	15.2
15–24 years . . . . .	65,632	3,948	7.5	0.3	168.7	10.1
25–44 years . . . . .	200,636	10,026	22.8	0.6	241.9	12.1
45–64 years . . . . .	239,106	9,947	27.2	0.6	373.3	15.5
65–74 years . . . . .	112,978	5,835	12.8	0.4	624.9	32.3
75 years and over . . . . .	115,452	6,475	13.1	0.6	738.5	41.4
Sex and age						
Female . . . . .	520,110	20,939	59.1	0.6	362.3	14.6
Under 15 years . . . . .	69,614	4,514	7.9	0.4	235.9	15.3
15–24 years . . . . .	42,071	2,980	4.8	0.3	217.5	15.4
25–44 years . . . . .	131,664	7,331	15.0	0.5	312.5	17.4
45–64 years . . . . .	142,657	5,939	16.2	0.4	432.0	18.0
65–74 years . . . . .	64,029	3,876	7.3	0.3	647.5	39.2
75 years and over . . . . .	70,075	4,375	8.0	0.4	726.3	45.3
Male . . . . .	360,377	13,941	40.9	0.6	264.0	10.2
Under 15 years . . . . .	77,069	5,330	8.8	0.5	249.2	17.2
15–24 years . . . . .	23,562	1,722	2.7	0.2	120.4	8.8
25–44 years . . . . .	68,971	4,091	7.8	0.4	169.0	10.0
45–64 years . . . . .	96,449	5,010	11.0	0.4	310.8	16.1
65–74 years . . . . .	48,950	2,625	5.6	0.2	597.7	32.1
75 years and over . . . . .	45,376	2,594	5.2	0.3	758.0	43.3
Race and age <sup>2</sup>						
White . . . . .	777,550	31,096	88.3	0.7	342.6	13.7
Under 15 years . . . . .	125,404	8,505	14.2	0.8	271.2	18.4
15–24 years . . . . .	56,769	3,576	6.4	0.3	186.2	11.7
25–44 years . . . . .	174,814	8,979	19.9	0.6	262.0	13.5
45–64 years . . . . .	211,225	9,208	24.0	0.5	392.6	17.1
65–74 years . . . . .	102,304	5,430	11.6	0.4	651.2	34.6
75 years and over . . . . .	107,035	6,115	12.2	0.6	764.2	43.7
Black or African American . . . . .	66,141	4,994	7.5	0.5	189.4	14.3
Under 15 years . . . . .	9,562	1,371	1.1	0.2	101.0	14.5
15–24 years . . . . .	5,991	982	0.7	0.1	107.7	17.6
25–44 years . . . . .	17,555	1,666	2.0	0.2	169.7	16.1
45–64 years . . . . .	20,717	2,055	2.4	0.2	306.0	30.4
65–74 years . . . . .	6,878	943	0.8	0.1	425.8	58.4
75 years and over . . . . .	5,438	981	0.6	0.1	473.3	85.4
All other races <sup>2</sup>						
Asian . . . . .	29,180	3,003	3.3	0.3	263.9	27.2
Native Hawaiian or other Pacific Islander . . . . .	2,929	646	0.3	0.1	628.9	138.8
American Indian or Alaska Native . . . . .	1,913	532	0.2	0.1	71.9	20.0
Multiple races . . . . .	2,775	464	0.3	0.1	69.3	11.6

... Category not applicable.

<sup>1</sup> Visit rates for age, sex, and race are based on the 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.

<sup>2</sup>The 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 and prior-visit status: United States, 2001**

Primary care physician and referral status	All visits	Prior-visit status		
		Established patient	New patient	Unknown/blank
Number of visits in thousands				
All visits . . . . .	880,487	764,641	103,511	12,335
Visit to PCP <sup>1</sup> . . . . .	442,492	418,664	21,230	2,598
Visit to non-PCP <sup>1</sup> . . . . .	393,677	315,344	75,954	2,379
Referred by other physician . . . . .	128,202	79,851	47,757	594
Not referred by other physician . . . . .	208,850	189,472	18,618	760
Unknown if referred . . . . .	56,625	46,022	9,578	1,026
Unknown if PCP <sup>1</sup> visit . . . . .	44,318	30,633	6,327	*7,357
Standard error in thousands				
All visits . . . . .	33,373	29,808	5,301	3,095
Visit to PCP <sup>1</sup> . . . . .	26,760	25,330	2,437	740
Visit to non-PCP <sup>1</sup> . . . . .	19,179	16,326	4,357	381
Referred by other physician . . . . .	8,997	6,587	3,891	123
Not referred by other physician . . . . .	13,564	12,562	1,578	198
Unknown if referred . . . . .	5,281	4,640	1,495	289
Unknown if PCP <sup>1</sup> visit . . . . .	5,304	4,049	1,124	2,516
Percent distribution				
All visits . . . . .	100.0	100.0	100.0	100.0
Visit to PCP <sup>1</sup> . . . . .	50.3	54.8	20.5	21.1
Visit to non-PCP <sup>1</sup> . . . . .	44.7	41.2	73.4	19.3
Referred by other physician . . . . .	14.6	10.4	46.1	*4.8
Not referred by other physician . . . . .	23.7	24.8	18.0	*6.2
Unknown if referred . . . . .	6.4	6.0	9.3	*8.3
Unknown if PCP <sup>1</sup> visit . . . . .	5.0	4.0	6.1	59.6
Standard error of percent				
All visits . . . . .	...	...	...	...
Visit to PCP <sup>1</sup> . . . . .	1.9	2.0	2.0	3.9
Visit to non-PCP <sup>1</sup> . . . . .	1.9	2.0	2.1	5.2
Referred by other physician . . . . .	0.9	0.8	2.3	1.5
Not referred by other physician . . . . .	1.4	1.6	1.4	2.1
Unknown if referred . . . . .	0.6	0.6	1.5	2.8
Unknown if PCP <sup>1</sup> visit . . . . .	0.6	0.5	1.1	6.7

\* Figure does not meet standard of reliability or precision.

... Category not applicable.

<sup>1</sup>PCP 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 2001**

Physician specialty	Total	Visit to PCP <sup>1</sup>	Visit to non-PCP <sup>2</sup>			Unknown if PCP <sup>1</sup> visit
			Referred by other physician	Not referred by other physician	Unknown if referred	
Percent distribution						
All visits . . . . .	100.0	50.3	14.6	23.7	6.4	5.0
General and family practice . . . . .	100.0	85.9	*1.9	4.5	*1.9	*5.8
Internal medicine . . . . .	100.0	82.0	*2.4	*7.7	*	6.7
Pediatrics . . . . .	100.0	92.3	*2.0	*2.7	1.1	2.0
Obstetrics and gynecology . . . . .	100.0	17.2	8.3	54.0	9.7	10.8
Ophthalmology . . . . .	100.0	*4.1	22.8	56.3	14.5	2.3
Orthopedic surgery . . . . .	100.0	*7.6	37.4	39.9	12.3	2.8
Dermatology . . . . .	100.0	*4.2	20.5	49.4	24.1	*1.8
Cardiovascular diseases . . . . .	100.0	26.7	23.2	37.4	8.5	4.2
Psychiatry . . . . .	100.0	*3.2	17.2	58.5	13.0	*8.1
General surgery . . . . .	100.0	*10.6	57.7	25.2	*4.8	*
Otolaryngology . . . . .	100.0	*3.5	48.4	33.7	12.2	*
Urology . . . . .	100.0	*	39.6	35.5	19.2	*4.0
Neurology . . . . .	100.0	*3.7	51.7	32.5	8.5	*3.5
All other specialties . . . . .	100.0	18.6	33.5	35.1	7.6	*5.2
Standard error of percent						
All visits . . . . .	...	1.9	0.9	1.4	0.6	0.6
General and family practice . . . . .	...	2.6	0.6	1.1	0.7	1.8
Internal medicine . . . . .	...	4.0	0.8	3.4	...	1.8
Pediatrics . . . . .	...	1.4	0.9	0.9	0.3	0.4
Obstetrics and gynecology . . . . .	...	5.0	1.9	5.4	2.5	3.1
Ophthalmology . . . . .	...	3.0	3.0	4.2	2.7	0.6
Orthopedic surgery . . . . .	...	3.2	3.5	4.1	2.0	0.7
Dermatology . . . . .	...	3.4	2.8	5.0	3.9	0.6
Cardiovascular diseases . . . . .	...	8.0	3.8	6.7	2.1	1.0
Psychiatry . . . . .	...	1.4	2.5	5.1	3.8	3.7
General surgery . . . . .	...	4.1	5.7	4.8	2.2	...
Otolaryngology . . . . .	...	1.7	5.7	4.8	2.4	...
Urology . . . . .	...	...	4.3	4.4	3.6	1.5
Neurology . . . . .	...	1.4	4.0	3.8	2.5	1.4
All other specialties . . . . .	...	3.7	4.3	4.4	1.9	1.9

\* Figure does not meet standard of reliability or precision.

... Category not applicable.

<sup>1</sup>PCP is patient's primary care physician or provider.<sup>2</sup>Referral 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 selected continuity-of-care visit characteristics: United States, 2001**

Continuity-of-care visit characteristics	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits . . . . .	880,487	33,373	100.0	...
Prior-visit status and number of visits in last 12 months				
Established patient. . . . .	764,641	29,808	86.8	0.5
None. . . . .	57,367	4,223	6.5	0.4
1–2 visits . . . . .	229,574	10,644	26.1	0.7
3–5 visits . . . . .	224,098	10,330	25.5	0.7
6 visits or more . . . . .	201,686	10,900	22.9	0.8
Unknown/blank. . . . .	29,492	6,218	3.3	0.7
New patient . . . . .	103,511	5,301	11.8	0.5
Unknown if patient previously seen. . . . .	37,757	5,921	3.9	0.6
Do other physicians share care for this problem?				
Yes . . . . .	193,301	13,847	22.0	1.3
No. . . . .	561,466	24,733	63.8	1.6
Unknown/blank . . . . .	125,720	10,617	14.3	1.0
Episode of care				
Initial visit for problem . . . . .	258,414	12,830	29.3	0.9
Followup visit for problem . . . . .	390,440	15,785	44.3	0.9
Unknown/blank . . . . .	83,784	7,413	9.5	0.8
Not applicable (preventive care visit) <sup>1</sup> . . . . .	147,848	10,573	16.8	0.9

... Category not applicable.

<sup>1</sup>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 and prior-visit status: United States, 2001**

Primary expected source of payment	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits . . . . .	880,487	33,373	100.0	...
Private insurance. . . . .	517,402	21,812	58.8	1.3
Medicare. . . . .	192,139	9,978	21.8	0.8
Medicaid/SCHIP <sup>1</sup> . . . . .	63,604	8,029	7.2	0.8
Self-pay . . . . .	35,305	3,787	4.0	0.4
Worker's compensation . . . . .	14,852	1,911	1.7	0.2
No charge/charity . . . . .	3,127	733	0.4	0.1
Other . . . . .	16,408	2,915	1.9	0.3
Unknown/blank . . . . .	37,649	5,486	4.3	0.6

... Category not applicable.

<sup>1</sup>SCHIP 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, 2001**

Principal reason for visit and RVC code <sup>1</sup>	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits . . . . .	880,487	33,373	100.0	...
Symptom module. . . . . S001–S999	437,920	16,963	49.7	0.8
General symptoms . . . . . S001–S099	51,451	2,994	5.8	0.3
Symptoms referable to psychological/mental disorders . . . . . S100–S199	26,077	2,380	3.0	0.3
Symptoms referable to the nervous system (excluding sense organs) . . . . . S200–S259	25,146	1,789	2.9	0.2
Symptoms referable to the cardiovascular/lymphatic system . . . . . S260–S299	4,773	619	0.5	0.1
Symptoms referable to the eyes and ears . . . . . S300–S399	46,949	3,143	5.3	0.3
Symptoms referable to the respiratory system . . . . . S400–S499	80,965	5,335	9.2	0.5
Symptoms referable to the digestive system. . . . . S500–S639	36,375	3,657	4.1	0.4
Symptoms referable to the genitourinary system . . . . . S640–S829	28,885	2,668	3.3	0.3
Symptoms referable to the skin, hair, and nails . . . . . S830–S899	46,872	3,415	5.3	0.3
Symptoms referable to the musculoskeletal system . . . . . S900–S999	90,427	6,180	10.3	0.5
Disease module . . . . . D001–D999	98,192	6,472	11.2	0.6
Diagnostic/screening and preventive module. . . . . X100–X599	158,709	9,868	18.0	0.8
Treatment module . . . . . T100–T899	114,092	7,509	13.0	0.7
Injuries and adverse effects module . . . . . J001–J999	23,076	1,876	2.6	0.2
Test results module . . . . . R100–R700	19,000	1,810	2.2	0.2
Administrative module. . . . . A100–A140	7,658	2,059	0.9	0.2
Other <sup>2</sup> . . . . . U990–U999	21,838	4,437	2.5	0.5

... Category not applicable.

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

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

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

**Table 9. Number and percent distribution of office visits with corresponding standard errors by the 20 principal reasons for visit most frequently mentioned by patients, according to patient's sex: United States, 2001**

Principal reason for visit and RVC code <sup>1</sup>	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent	Patient's sex			
					Female <sup>2</sup>		Male <sup>3</sup>	
					Percent distribution	Standard error of percent	Percent distribution	Standard error of percent
All visits . . . . .	880,487	33,373	100.0	...	100.0	...	100.0	...
General medical examination . . . . . X100	68,844	5,319	7.8	0.5	7.4	0.6	8.5	0.6
Progress visit, not otherwise specified. . . . . T800	39,783	5,113	4.5	0.5	4.4	0.6	4.7	0.6
Cough . . . . . S440	27,062	2,572	3.1	0.3	2.7	0.3	3.6	0.4
Postoperative visit . . . . . T205	23,995	1,952	2.7	0.2	2.9	0.3	2.5	0.2
Routine prenatal examination . . . . . X205	19,848	3,270	2.3	0.3	3.8	0.6	...	...
Medication, other and unspecified kinds. . . . . T115	16,457	2,089	1.9	0.2	1.9	0.3	1.8	0.2
Symptoms referable to throat . . . . . S455	15,082	1,310	1.7	0.1	1.8	0.2	1.5	0.2
Back symptoms. . . . . S905	13,707	1,627	1.6	0.2	1.5	0.2	1.7	0.2
Stomach pain, cramps and spasms . . . . . S545	13,594	1,709	1.5	0.2	1.6	0.2	1.5	0.2
Vision dysfunctions . . . . . S305	13,555	1,782	1.5	0.2	1.5	0.2	1.6	0.2
Knee symptoms . . . . . S925	12,743	1,285	1.4	0.1	1.4	0.1	1.5	0.2
Diabetes mellitus. . . . . D205	12,502	2,123	1.4	0.2	1.1	0.2	1.9	0.4
Well-baby examination . . . . . X105	12,361	1,443	1.4	0.2	1.2	0.2	1.7	0.2
Skin rash. . . . . S860	12,088	1,219	1.4	0.1	1.3	0.2	1.5	0.2
Fever . . . . . S010	10,910	1,370	1.2	0.2	1.0	0.1	1.5	0.2
Gynecological examination. . . . . X225	10,782	2,211	1.2	0.2	2.1	0.4	...	...
Hypertension . . . . . D510	10,467	1,336	1.2	0.1	1.1	0.2	1.3	0.2
Headache, pain in head . . . . . S210	9,876	1,004	1.1	0.1	1.2	0.1	1.0	0.2
Nasal congestion. . . . . S400	9,592	1,115	1.1	0.1	0.9	0.1	1.4	0.2
Earache or ear infection . . . . . S355	9,449	1,126	1.1	0.1	1.2	0.2	0.9	0.1
All other reasons. . . . .	517,791	19,686	58.8	0.8	57.8	1.0	60.2	1.0

... Category not applicable.

\* Figure does not meet standard of reliability or precision.

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

<sup>2</sup>Based on 520,110,000 visits made by females.

<sup>3</sup>Based on 360,377,000 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 visit, according to patient's age, sex, and race: United States, 2001**

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 <sup>1</sup>	Unknown/blank
Number of visits in thousands							
All visits . . . . .	880,487	311,179	253,393	73,643	49,465	147,848	44,959
Age							
Under 15 years . . . . .	146,683	71,550	15,387	6,196	2,988	44,466	6,096
15–24 years . . . . .	65,632	27,062	12,658	5,160	2,545	15,831	2,377
25–44 years . . . . .	200,636	74,227	46,840	17,386	11,887	39,888	10,408
45–64 years . . . . .	239,106	75,744	82,366	23,995	16,096	28,799	12,106
65–74 years . . . . .	112,978	32,749	44,604	10,127	8,116	10,750	6,633
75 years and over . . . . .	115,452	29,848	51,539	10,779	7,833	8,113	7,340
Sex							
Female . . . . .	520,110	183,089	142,941	43,855	28,490	96,319	25,416
Male . . . . .	360,377	128,090	110,452	29,788	20,975	51,529	19,543
Race <sup>2</sup>							
White . . . . .	777,550	275,435	225,702	64,840	44,529	128,249	38,794
Black or African American . . . . .	66,141	21,322	20,412	6,253	3,353	11,080	3,722
Other . . . . .	36,796	14,422	7,279	2,550	1,583	8,519	*2,443
Standard error in thousands							
All visits . . . . .	33,373	13,829	11,867	5,090	3,408	10,573	6,666
Age							
Under 15 years . . . . .	9,211	5,542	1,662	840	472	4,073	1,678
15–24 years . . . . .	3,948	1,921	1,185	606	424	2,137	527
25–44 years . . . . .	10,026	4,448	2,803	1,584	1,147	4,776	1,996
45–64 years . . . . .	9,947	4,227	4,378	1,943	1,360	2,589	1,799
65–74 years . . . . .	5,835	2,168	2,930	1,134	823	1,572	1,383
75 years and over . . . . .	6,475	2,169	3,484	1,231	775	1,193	1,505
Sex							
Female . . . . .	20,939	8,711	7,046	3,199	2,361	7,822	3,869
Male . . . . .	13,941	6,276	5,406	2,329	1,466	4,251	3,119
Race <sup>2</sup>							
White . . . . .	31,096	13,003	10,698	4,537	3,265	9,505	5,951
Black or African American . . . . .	4,994	2,016	2,517	923	694	1,695	916
Other . . . . .	3,488	2,002	734	440	276	1,160	743
Percent distribution							
All visits . . . . .	100.0	35.3	28.8	8.4	5.6	16.8	5.1
Age							
Under 15 years . . . . .	100.0	48.8	10.5	4.2	2.0	30.3	4.2
15–24 years . . . . .	100.0	41.2	19.3	7.9	3.9	24.1	3.6
25–44 years . . . . .	100.0	37.0	23.3	8.7	5.9	19.9	5.2
45–64 years . . . . .	100.0	31.7	34.4	10.0	6.7	12.0	5.1
65–74 years . . . . .	100.0	29.0	39.5	9.0	7.2	9.5	5.9
75 years and over . . . . .	100.0	25.9	44.6	9.3	6.8	7.0	6.4
Sex							
Female . . . . .	100.0	35.2	27.5	8.4	5.5	18.5	4.9
Male . . . . .	100.0	35.5	30.6	8.3	5.8	14.3	5.4
Race <sup>2</sup>							
White . . . . .	100.0	35.4	29.0	8.3	5.7	16.5	5.0
Black or African American . . . . .	100.0	32.3	30.9	9.5	5.1	16.8	5.6
Other . . . . .	100.0	39.2	19.8	6.9	4.3	23.3	6.6

See footnotes at end of table.

**Table 10. Number and percent distribution of office visits with corresponding standard errors by major reason for visit, according to patient's age, sex, and race: United States, 2001—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 <sup>1</sup>	
		Standard error of percent					
All visits . . . . .	...	1.0	0.9	0.5	0.4	0.9	0.7
Age							
Under 15 years . . . . .	...	1.9	1.1	0.5	0.3	1.9	1.1
15–24 years . . . . .	...	2.3	1.6	0.9	0.6	2.4	0.8
25–44 years . . . . .	...	1.6	1.1	0.7	0.6	1.8	0.9
45–64 years . . . . .	...	1.1	1.2	0.7	0.6	0.9	0.7
65–74 years . . . . .	...	1.4	1.8	0.9	0.7	1.2	1.1
75 years and over . . . . .	...	1.4	1.6	0.9	0.6	1.0	1.2
Sex							
Female . . . . .	...	1.1	1.0	0.6	0.4	1.1	0.7
Male . . . . .	...	1.1	1.0	0.5	0.4	1.0	0.8
Race <sup>2</sup>							
White . . . . .	...	1.0	0.9	0.5	0.4	0.9	0.7
Black or African American . . . . .	...	1.8	2.4	1.3	1.2	2.1	1.4
Other . . . . .	...	2.8	1.9	1.1	0.8	2.3	1.9

... Category not applicable.

\* Figure does not meet standard of reliability or precision.

<sup>1</sup>Preventive care includes prenatal, general medical, well-baby, and screening or insurance examinations.

<sup>2</sup>Other 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 the 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 visits at physician office visits with corresponding standard errors, by selected patient and visit characteristics: United States, 2001**

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 <sup>1</sup>	Standard error of rate
All preventive care visits <sup>2</sup> . . . . .	147,848	10,573	100.0	...	52.8	3.8
Age						
Less than 15 years . . . . .	44,466	4,073	30.1	2.4	73.6	6.7
15–24 years . . . . .	15,831	2,137	10.7	1.1	40.7	5.5
25–44 years . . . . .	39,888	4,776	27.0	2.0	48.1	5.8
45–64 years . . . . .	28,799	2,589	19.5	1.2	45.0	4.0
65–74 years . . . . .	10,750	1,572	7.3	1.0	59.5	8.7
75 years and over . . . . .	8,113	1,193	5.5	0.7	51.9	7.6
Sex and age						
Female . . . . .	96,319	7,822	65.1	1.9	67.1	5.4
Under 15 years . . . . .	21,001	1,892	14.2	1.2	71.2	6.4
15–24 years . . . . .	12,343	1,756	8.3	1.0	63.8	9.1
25–44 years . . . . .	32,866	4,494	22.2	2.1	78.0	10.7
45–64 years . . . . .	18,517	1,739	12.5	0.9	56.1	5.3
65–74 years . . . . .	7,091	1,272	4.8	0.8	71.7	12.9
75 years and over . . . . .	4,500	754	3.0	0.5	46.6	7.8
Male . . . . .	51,529	4,251	34.9	1.9	37.7	3.1
Under 15 years . . . . .	23,465	2,636	15.9	1.6	75.9	8.5
15–24 years . . . . .	3,488	894	2.4	0.5	17.8	4.6
25–44 years . . . . .	7,023	1,024	4.7	0.6	17.2	2.5
45–64 years . . . . .	10,282	1,323	7.0	0.7	33.1	4.3
65–74 years . . . . .	3,659	736	2.5	0.5	44.7	9.0
75 years and over . . . . .	3,612	712	2.4	0.4	60.3	11.9
Race <sup>3</sup>						
White . . . . .	128,249	9,505	86.7	1.2	56.5	4.2
Black or African American . . . . .	11,080	1,695	7.5	1.0	31.7	4.9
Other . . . . .	8,519	1,160	5.8	0.7	46.8	6.4
Primary expected source of payment						
Private insurance . . . . .	101,882	7,686	68.9	2.1	51.0	3.8
Medicaid/SCHIP <sup>4</sup> . . . . .	15,800	2,203	10.7	1.3	50.0	7.0
Medicare . . . . .	15,408	2,348	10.4	1.4	40.5	6.2
Self-pay/charity/no charge . . . . .	4,888	903	3.3	0.6	11.9	2.2
Other <sup>5</sup> . . . . .	9,869	2,172	6.7	1.3	...	...

... Category not applicable.

<sup>1</sup>Visit 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.)

<sup>2</sup>Preventive care includes routine prenatal, general medical, well-baby, and screening or insurance examinations.

<sup>3</sup>Other 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 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 the 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.

<sup>4</sup>SCHIP is State Children's Health Insurance Program.

<sup>5</sup>"Other" includes worker's 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, 2001**

Major disease category and ICD-9-CM code range <sup>1</sup>	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits . . . . .	880,487	33,373	100.0	...
Infectious and parasitic diseases . . . . . 001-139	23,772	1,929	2.7	0.2
Neoplasms . . . . . 140-239	24,290	3,434	2.8	0.4
Endocrine, nutritional, metabolic diseases, immunity disorders . . . . . 240-279	49,883	5,313	5.7	0.5
Mental disorders . . . . . 290-319	44,769	3,478	5.1	0.4
Diseases of the nervous system and sense organs . . . . . 320-389	81,658	4,784	9.3	0.5
Diseases of the circulatory system . . . . . 390-459	71,075	4,889	8.1	0.5
Diseases of the respiratory system . . . . . 460-519	97,493	7,136	11.1	0.7
Diseases of the digestive system . . . . . 520-579	31,604	3,029	3.6	0.3
Diseases of the genitourinary system . . . . . 580-629	41,708	3,385	4.7	0.4
Diseases of the skin and subcutaneous tissue . . . . . 680-709	47,892	3,457	5.4	0.4
Diseases of the musculoskeletal and connective tissue . . . . . 710-739	80,298	6,473	9.1	0.6
Symptoms, signs, and ill-defined conditions . . . . . 780-799	56,891	3,154	6.5	0.3
Injury and poisoning . . . . . 800-999	42,539	3,239	4.8	0.3
Supplementary classification . . . . . V01-V82	147,952	9,640	16.8	0.9
All other diagnoses <sup>2</sup> . . . . .	19,319	1,751	2.2	0.2
Unknown <sup>3</sup> . . . . .	19,344	3,093	2.2	0.3

... Category not applicable.

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

<sup>2</sup>Includes diseases of the blood and blood-forming organs (280-289); complications of pregnancy, childbirth, and the puerperium (630-677); congenital anomalies (740-759); and certain conditions originating in the perinatal period (760-779); and diagnoses that were uncodable, patient left before being seen, patient was transferred to another facility, health maintenance organization did not authorize treatment, entries of "none", "no diagnosis", "no disease," or "healthy."

<sup>3</sup>Includes 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 and patient's sex: United States, 2001**

Primary diagnosis group and ICD-9-CM code(s) <sup>1</sup>	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent	Patient's sex			
					Female <sup>2</sup>		Male <sup>3</sup>	
					Percent distribution	Standard error of percent	Percent distribution	Standard error of percent
All visits . . . . .	880,487	33,373	100.0	...	100.0	...	100.0	...
Routine infant or child health check . . . . . V20.2	36,727	3,492	4.2	0.4	3.4	0.3	5.4	0.6
Essential hypertension . . . . . 401	34,537	3,109	3.9	0.3	3.6	0.3	4.4	0.4
Arthropathies and related disorders . . . . . 710-719	28,520	3,549	3.2	0.4	3.6	0.5	2.7	0.3
Acute upper respiratory infections, excluding pharyngitis . . . . . 460-461,463-466	28,406	2,986	3.2	0.3	3.0	0.3	3.6	0.4
Diabetes mellitus . . . . . 250	26,991	3,578	3.1	0.4	2.8	0.3	3.5	0.5
Spinal disorders . . . . . 720-724	23,683	2,435	2.7	0.3	2.6	0.3	2.8	0.3
Rheumatism, excluding back . . . . . 725-729	21,458	2,319	2.4	0.2	2.5	0.3	2.4	0.3
Normal pregnancy . . . . . V22	17,866	2,988	2.0	0.3	3.4	0.5	*	...
General medical examination . . . . . V70	17,495	3,272	2.0	0.3	2.0	0.3	2.0	0.5
Malignant neoplasms . . . . . 140-208,230-234	15,987	2,762	1.8	0.3	1.7	0.3	2.0	0.3
Heart disease, excluding ischemic . . . . . 391-392.0,393-398,402,404,415-416,420-429	14,364	1,215	1.6	0.1	1.4	0.1	2.0	0.2
Otitis media and Eustachian tube disorders . . . . . 381-382	13,993	1,315	1.6	0.1	1.5	0.2	1.7	0.2
Chronic sinusitis . . . . . 473	12,302	1,554	1.4	0.2	1.3	0.2	1.5	0.2
Ischemic heart disease . . . . . 410-414.9	11,883	1,394	1.3	0.2	0.8	0.1	2.1	0.2
Asthma . . . . . 493	11,280	1,943	1.3	0.2	1.1	0.2	1.5	0.3
Gynecological examination . . . . . V72.3	11,218	2,005	1.3	0.2	2.2	0.4	...	...
Followup examination . . . . . V67	10,864	1,395	1.2	0.2	1.2	0.2	1.3	0.2
Allergic rhinitis . . . . . 477	10,131	1,431	1.2	0.2	1.2	0.2	1.1	0.2
Disorder of lipid metabolism . . . . . 272	10,063	1,227	1.1	0.1	0.9	0.1	1.5	0.2
Cataract . . . . . 366	9,790	1,448	1.1	0.2	1.2	0.2	0.9	0.2
All other diagnoses . . . . .	512,929	18,250	58.3	0.9	58.7	1.0	57.6	1.1

... Category not applicable.

\* Figure does not meet standard of reliability or precision.

<sup>1</sup>Based 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.

<sup>2</sup>Based on 520,110,000 visits made by females.

<sup>3</sup>Based on 360,377,000 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, 2001**

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 <sup>1</sup>	Standard error of rate
All injury-related visits . . . . .	99,762	5,932	100.0	. . .	35.6	2.1
Age						
Under 15 years . . . . .	14,839	1,151	14.9	1.0	24.6	1.9
15-24 . . . . .	10,454	1,024	10.5	0.8	26.9	2.6
25-44 . . . . .	25,381	2,163	25.4	1.4	30.6	2.6
45-64 . . . . .	30,179	2,396	30.3	1.2	47.1	3.7
65-74 . . . . .	8,939	845	9.0	0.7	49.4	4.7
75 years and over . . . . .	9,972	888	10.0	0.8	63.8	5.7
Sex and age						
Female . . . . .	49,987	3,181	50.1	1.2	34.8	2.2
Under 15 years . . . . .	6,386	676	6.4	0.6	21.6	2.3
15-24 . . . . .	5,017	666	5.0	0.6	25.9	3.4
25-44 . . . . .	11,618	1,112	11.6	0.8	27.6	2.6
45-64 . . . . .	15,874	1,403	15.9	0.9	48.1	4.2
65-74 . . . . .	5,035	585	5.0	0.5	50.9	5.9
75 years and over . . . . .	6,057	679	6.1	0.6	62.8	7.0
Male . . . . .	49,776	3,198	49.9	1.2	36.5	2.3
Under 15 years . . . . .	8,453	725	8.5	0.7	27.3	2.3
15-24 . . . . .	5,436	591	5.4	0.5	27.8	3.0
25-44 . . . . .	13,763	1,289	13.8	0.9	33.7	3.2
45-64 . . . . .	14,305	1,393	14.3	0.9	46.1	4.5
65-74 . . . . .	3,903	472	3.9	0.4	47.7	5.8
75 years and over . . . . .	3,915	444	3.9	0.4	65.4	7.4
Race <sup>2</sup>						
White . . . . .	88,535	5,412	88.7	1.0	39.0	2.4
Black or African American . . . . .	7,790	877	7.8	0.8	22.3	2.5
Other . . . . .	3,438	627	3.4	0.6	18.9	3.4

. . . Category not applicable.

<sup>1</sup>Visit 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.<sup>2</sup>Other 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 the 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, 2001**

Intent and mechanism <sup>1</sup>	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All injury-related visits . . . . .	99,762	5,932	100.0	...
Unintentional injuries . . . . .	55,310	3,840	55.4	1.8
Falls . . . . .	12,566	1,181	12.6	0.9
Overexertion and strenuous movements . . . . .	6,763	833	6.8	0.7
Motor vehicle traffic . . . . .	6,174	804	6.2	0.7
Striking against or struck accidentally by objects or persons . . . . .	5,435	550	5.4	0.5
Natural and environmental factors . . . . .	3,147	451	3.2	0.4
Cutting or piercing instruments or objects . . . . .	2,111	442	2.1	0.4
Other and not elsewhere classified <sup>2</sup> . . . . .	13,670	1,371	13.7	1.0
Mechanism unspecified . . . . .	5,443	1,074	5.5	1.0
Intentional injuries <sup>3</sup> . . . . .	*907	288	*0.9	0.3
Injuries of undetermined intent . . . . .	*	...	*	...
Adverse effects of medical treatment . . . . .	5,623	688	5.6	0.6
Blank cause <sup>4</sup> . . . . .	37,896	2,839	38.0	1.9

... Category not applicable.

\*Figure does not meet standard of reliability or precision.

<sup>1</sup>Based 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."

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

<sup>3</sup>Includes assault, self-inflicted, and other causes of violence.

<sup>4</sup>Includes 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 and patient's sex: United States, 2001**

Diagnostic and screening services ordered or provided	Number of visits in thousands <sup>1</sup>	Standard error in thousands	Percent distribution	Standard error of percent	Patient's sex			
					Female <sup>2</sup>		Male <sup>3</sup>	
					Percent of visits	Standard error of percent	Percent of visits	Standard error of percent
All visits . . . . .	880,487	33,373	...	...	...	...	...	...
None . . . . .	138,057	10,067	15.7	1.0	15.5	1.0	15.9	1.1
Diagnostic tests								
Blood pressure . . . . .	420,876	24,466	47.8	1.7	49.8	1.8	44.9	1.8
EKG <sup>4</sup> . . . . .	23,739	2,101	2.7	0.2	2.5	0.3	2.9	0.3
Any scope procedure . . . . .	16,925	2,492	1.9	0.3	2.0	0.3	1.8	0.3
Sigmoidoscopy/colonoscopy . . . . .	8,172	1,512	0.9	0.2	1.0	0.2	0.9	0.2
Endoscopy . . . . .	7,241	1,586	0.8	0.2	0.9	0.2	0.7	0.2
Cystoscopy . . . . .	2,626	402	0.3	0.0	0.3	0.1	0.3	0.1
Cardiac stress test . . . . .	4,909	743	0.6	0.1	0.3	0.1	0.9	0.2
Audiometry . . . . .	4,051	874	0.5	0.1	0.4	0.1	0.6	0.1
Tuberculin skin test . . . . .	2,530	562	0.3	0.1	*	...	*	...
EEG <sup>5</sup> . . . . .	503	107	0.1	0.0	*	...	0.1	0.0
Fetal monitoring . . . . .	*3,346	1,166	*0.4	0.1	*0.6	0.2	...	...
Laboratory tests								
CBC <sup>6</sup> . . . . .	71,549	7,056	8.1	0.7	8.2	0.8	8.0	0.7
Urinalysis . . . . .	63,352	6,022	7.2	0.6	7.8	0.7	6.4	0.6
Cholesterol . . . . .	42,806	4,215	4.9	0.4	4.2	0.5	5.8	0.6
PSA <sup>7</sup> . . . . .	13,213	1,366	1.5	0.2	...	...	3.7	0.4
Hematocrit/hemoglobin . . . . .	21,544	3,449	2.4	0.4	2.4	0.4	2.5	0.4
Pap test . . . . .	31,708	3,848	3.6	0.4	6.1	0.6	...	...
Cultures								
Any culture . . . . .	29,375	3,465	3.3	0.3	4.0	0.5	2.4	0.3
Throat/rapid strep test . . . . .	11,259	1,500	1.3	0.2	1.3	0.2	1.2	0.2
Urine . . . . .	10,323	2,262	1.2	0.2	1.5	0.4	0.8	0.2
Stool . . . . .	3,919	919	0.4	0.1	0.5	0.1	*	...
Cervical/urethral . . . . .	4,347	1,072	0.5	0.1	0.8	0.2	...	...
Imaging								
Any imaging . . . . .	96,421	5,433	11.0	0.5	11.7	0.5	9.9	0.6
X ray . . . . .	54,372	3,725	6.2	0.4	5.6	0.4	7.1	0.5
Ultrasound . . . . .	10,611	1,478	1.2	0.2	1.5	0.3	0.8	0.1
Mammography . . . . .	18,010	2,180	2.0	0.2	3.4	0.4	...	...
Other imaging . . . . .	25,143	2,012	2.9	0.2	2.9	0.2	2.8	0.3
Blank . . . . .	13,259	2,999	1.5	0.3	1.5	0.3	1.6	0.4

... Category not applicable.

\* Figure does not meet standard of reliability or precision.

0.0 Quantity more than zero, but less than 0.05.

<sup>1</sup>Total exceeds "All visits" because more than one service may be reported per visit.<sup>2</sup>Based on 520,110,000 visits made by females.<sup>3</sup>Based on 360,377,000 visits made by males.<sup>4</sup>EKG is electrocardiogram.<sup>5</sup>EEG is electroencephalogram.<sup>6</sup>CBC is complete blood count.<sup>7</sup>PSA 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 and patient's sex: United States, 2001**

Counseling, education, or therapeutic services ordered or provided	Number of visits in thousands <sup>1</sup>	Standard error in thousands	Percent of visits	Standard error of percent	Patients' sex			
					Female <sup>2</sup>		Male <sup>3</sup>	
					Percent of visits	Standard error of percent	Percent of visits	Standard error of percent
All visits . . . . .	880,487	33,373	...	...	...	...	...	...
None . . . . .	480,457	23,869	54.6	1.6	55.2	1.6	53.7	1.7
Diet/nutrition . . . . .	101,729	7,702	11.6	0.8	11.3	0.8	11.9	0.9
Exercise . . . . .	72,073	7,010	8.2	0.7	7.8	0.7	8.7	0.8
Growth/development . . . . .	34,757	4,197	3.9	0.5	3.3	0.4	4.9	0.7
Mental health/stress management . . . . .	33,820	3,729	3.8	0.4	4.0	0.4	3.6	0.4
Weight reduction . . . . .	23,402	2,448	2.7	0.2	2.4	0.3	3.0	0.4
Tobacco use/exposure . . . . .	18,025	2,068	2.0	0.2	1.9	0.2	2.3	0.3
Psychotherapy . . . . .	16,933	2,258	1.9	0.3	2.0	0.3	1.8	0.3
Physiotherapy . . . . .	14,140	2,348	1.6	0.3	1.6	0.3	1.6	0.3
Asthma education . . . . .	13,778	1,978	1.6	0.2	1.3	0.2	1.9	0.4
Other . . . . .	164,140	11,709	18.6	1.2	19.1	1.3	17.9	1.2
Blank . . . . .	35,281	5,862	4.0	0.6	3.9	0.6	4.2	0.8

... Category not applicable.

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

<sup>2</sup>Based on 520,110,000 visits made by females.

<sup>3</sup>Based on 360,377,000 visits made by males.

**Table 18. Number and percent of write-in procedures ordered or performed with corresponding standard errors, by procedure category: United States, 2001**

Procedure/operation category <sup>1</sup>	ICD-9-CM codes	Number of procedures in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All write-in procedures. . . . .		143,978	8,876	100.0	...
Nervous system . . . . .	01–05	1,305	274	0.9	0.2
Eye . . . . .	08–16	6,717	1,042	4.7	0.7
Ear . . . . .	18–20	1,308	266	0.9	0.2
Nose, mouth, and pharynx . . . . .	21–29	2,919	496	2.0	0.4
Cardiovascular system . . . . .	35–39	1,387	325	1.0	0.2
Digestive system . . . . .	42–54	3,440	553	2.4	0.4
Urinary system . . . . .	55–59	1,949	402	1.4	0.3
Male genital organs . . . . .	60–64	1,905	281	1.3	0.2
Female genital organs . . . . .	65–71	5,317	846	3.7	0.6
Obstetrical procedures . . . . .	72–75	*2,235	903	*1.6	0.6
Musculoskeletal system . . . . .	76–84	8,565	1,356	5.9	1.0
Integumentary system . . . . .	85–86	24,979	2,593	17.3	1.5
Miscellaneous diagnostic and therapeutic procedures . . . . .	87–99	81,152	6,779	56.4	2.1
Other procedures <sup>2</sup> . . . . .		801	225	0.6	0.2

... Category not applicable.

\* Figure does not meet standard of reliability or precision.

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

<sup>2</sup>Includes 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).

NOTE: Included are responses to the ambulatory 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).

**Table 19. Number and percent distribution of office visits with corresponding standard errors, by medication therapy and number of medications provided or prescribed, and patient's sex: United States, 2001**

Visit characteristic	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent	Patient's sex			
					Female <sup>1</sup>		Male <sup>2</sup>	
					Percent distribution	Standard error of percent	Percent distribution	Standard error of percent
<b>Medication therapy<sup>3</sup></b>								
All visits . . . . .	880,487	33,373	100.0	...	100.0	...	100.0	...
Drug visits <sup>4</sup> . . . . .	545,441	23,756	61.9	1.1	62.0	1.2	61.9	1.2
Visits without mention of medication . . . . .	335,045	15,409	38.1	1.1	38.0	1.2	38.1	1.2
<b>Number of medications provided or prescribed by a physician</b>								
All visits . . . . .	880,487	33,373	100.0	...	100.0	...	100.0	...
0 . . . . .	335,045	15,409	38.1	1.1	38.0	1.2	38.1	1.2
1 . . . . .	223,396	10,573	25.4	0.7	25.5	0.7	25.3	0.8
2 . . . . .	131,317	6,000	14.9	0.5	14.3	0.5	15.8	0.6
3 . . . . .	71,695	4,860	8.1	0.4	8.4	0.5	7.8	0.4
4 . . . . .	39,713	3,030	4.5	0.3	4.6	0.3	4.4	0.4
5 . . . . .	22,098	2,088	2.5	0.2	2.3	0.2	2.8	0.3
6 . . . . .	57,221	6,623	6.5	0.7	7.0	0.8	5.8	0.6

... Category not applicable.  
<sup>1</sup>Based on 520,110,000 visits made by females.  
<sup>2</sup>Based on 360,377,000 visits made by males.  
<sup>3</sup>Includes prescription drugs, over-the-counter preparations, immunizations, and desensitizing agents.  
<sup>4</sup>Visits 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, drug mentions, and drug mention rates per 100 visits with corresponding standard errors, by physician specialty: United States, 2001**

Physician specialty	Drug visits				Drug mentions				Percent of drug visits		Drug mention rates	
	Number in thousands <sup>1</sup>	Standard error in thousands	Percent distribution	Standard error of percent	Number in thousands <sup>2</sup>	Standard error in thousands	Percent distribution	Standard error of percent	Percent drug visits <sup>3</sup>	Standard error of percent	Number of drug mentions per 100 visits <sup>4</sup>	Standard error of rate
All specialties . . . . .	545,441	23,756	100.0	...	1,313,786	73,283	100.0	...	61.9	1.1	149.2	5.8
General and family practice . . . . .	154,373	13,670	28.3	2.0	381,898	38,364	29.1	2.4	73.4	2.1	181.7	11.4
Internal medicine . . . . .	95,893	10,515	17.6	1.7	287,295	41,422	21.9	2.7	71.4	3.1	213.9	19.9
Pediatrics . . . . .	71,408	6,247	13.1	1.1	138,433	14,252	10.5	1.1	64.2	2.3	124.4	7.7
Obstetrics and gynecology . . . . .	27,692	4,323	5.1	0.7	38,792	5,799	3.0	0.4	39.6	3.1	55.5	5.1
Ophthalmology . . . . .	24,259	3,000	4.4	0.6	46,263	6,846	3.5	0.6	44.9	3.8	85.6	9.8
Dermatology . . . . .	23,481	3,049	4.3	0.6	40,659	5,693	3.1	0.5	62.0	2.4	107.3	5.8
Psychiatry . . . . .	21,811	2,852	4.0	0.5	42,983	5,622	3.3	0.4	80.6	3.0	158.9	8.4
Cardiovascular diseases . . . . .	21,798	3,309	4.0	0.6	83,267	12,456	6.3	0.9	78.2	3.0	298.6	27.8
Orthopedic surgery . . . . .	16,019	1,764	2.9	0.3	25,280	3,130	1.9	0.2	34.6	2.3	54.5	4.7
Otolaryngology . . . . .	8,721	1,164	1.6	0.2	15,670	2,346	1.2	0.2	49.2	2.8	88.5	7.3
Urology . . . . .	8,201	853	1.5	0.2	13,039	1,755	1.0	0.1	49.7	2.5	79.1	7.6
Neurology . . . . .	7,114	595	1.3	0.1	15,321	1,600	1.2	0.1	66.2	3.0	142.6	11.1
General surgery . . . . .	4,235	756	0.8	0.1	10,576	2,493	0.8	0.2	21.6	3.2	54.0	11.3
All other specialties . . . . .	60,437	7,525	11.1	1.2	174,308	26,967	13.3	1.8	62.2	4.3	179.5	19.9

... Category not applicable.

<sup>1</sup>Visits at which one or more drugs were provided or prescribed by the physician.

<sup>2</sup>Number of drugs mentioned at visits (up to six per visit).

<sup>3</sup>Percent of visits to specialist that included one or more drug mentions (number of drug visits divided by number of office visits multiplied by 100).

<sup>4</sup>Average number of drugs that were mentioned per 100 visits to each specialty (number of drug mentions divided by total number of visits multiplied by 100).

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

**Table 21. Number, percent distribution, and annual rate of drug mentions at office visits with corresponding standard errors, by therapeutic classification: United States, 2001**

Therapeutic classification <sup>1</sup>	Number of drug mentions in thousands	Standard error in thousands	Percent distribution	Standard error of percent	Number of drug mentions per 100 visits <sup>2</sup>	Standard error of rate
All drug mentions . . . . .	1,313,786	73,283	100.0	...	149.2	5.8
Cardiovascular-renal drugs . . . . .	192,842	16,377	14.7	0.7	21.9	1.6
Drugs used for relief of pain . . . . .	159,065	11,857	12.1	0.5	18.1	1.0
Respiratory tract drugs . . . . .	152,952	12,949	11.6	0.8	17.4	1.3
Hormones and agents affecting hormonal mechanisms . . . . .	142,513	12,782	10.8	0.6	16.2	1.2
Central nervous system drugs . . . . .	114,059	7,825	8.7	0.4	13.0	0.7
Antimicrobial agents . . . . .	113,969	6,027	8.7	0.5	12.9	0.5
Metabolic/nutrients . . . . .	107,764	9,587	8.2	0.4	12.2	1.0
Skin/mucous membrane drugs . . . . .	61,944	4,928	4.7	0.4	7.0	0.5
Gastrointestinal agents . . . . .	58,033	5,668	4.4	0.3	6.6	0.6
Immunologics . . . . .	52,595	6,042	4.0	0.4	6.0	0.6
Ophthalmics . . . . .	39,169	4,424	3.0	0.4	4.4	0.5
Neurologics . . . . .	33,565	2,569	2.6	0.2	3.8	0.3
Hematologics . . . . .	22,306	2,505	1.7	0.1	2.5	0.3
Anesthetic drugs . . . . .	10,085	1,554	0.8	0.1	1.1	0.2
Oncolytic agents . . . . .	7,211	1,806	0.5	0.1	0.8	0.2
Antiparasitics . . . . .	5,631	861	0.4	0.1	0.6	0.1
Otologics . . . . .	4,979	630	0.4	0.0	0.6	0.1
Contrast media/radiopharmaceuticals . . . . .	*392	181	*0.0	0.0	0.0	0.0
Other and unclassified <sup>3</sup> . . . . .	34,713	3,562	2.6	0.2	3.9	0.4

... Category not applicable.

0.0 Quantity more than zero, but less than 0.05.

\* Figure does not meet standard of reliability or precision.

<sup>1</sup> Based on the standard drug classification used in the *National Drug Code (NDC) Directory, 1995 edition* (11).

<sup>2</sup> Number of drug mentions divided by total number of visits multiplied by 100.

<sup>3</sup> Includes antidotes, unclassified/miscellaneous drugs, and homeopathic products.

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

**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, 2001**

Generic substance	Number of occurrences in thousands <sup>1</sup>	Standard error in thousands	Number of generic substances per 100 drug mentions <sup>2</sup>	Standard error of rate
Acetaminophen . . . . .	42,346	3,610	3.2	0.2
Amoxicillin . . . . .	28,488	2,169	2.2	0.2
Aspirin . . . . .	27,037	2,841	2.1	0.1
Atorvastatin calcium . . . . .	21,230	2,202	1.6	0.1
Hydrochlorothiazide . . . . .	20,327	2,183	1.5	0.1
Estrogens . . . . .	20,026	2,137	1.5	0.1
Fluticasone propionate . . . . .	18,893	2,747	1.4	0.2
Ibuprofen . . . . .	18,773	1,942	1.4	0.1
Albuterol . . . . .	17,982	1,828	1.4	0.1
Celecoxib . . . . .	17,608	1,981	1.3	0.1
Levothyroxine . . . . .	17,277	2,340	1.3	0.1
Hydrocodone . . . . .	17,085	1,739	1.3	0.1
Loratadine . . . . .	16,995	2,115	1.3	0.1
Furosemide . . . . .	15,886	2,006	1.2	0.1
Rofecoxib . . . . .	15,265	1,637	1.2	0.1
Lisinopril . . . . .	15,237	1,792	1.2	0.1
Atenolol . . . . .	14,684	1,854	1.1	0.1
Guaifenesin . . . . .	13,933	2,011	1.1	0.2
Metoprolol . . . . .	12,820	1,761	1.0	0.1
Amlodipine . . . . .	12,805	1,416	1.0	0.1

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

<sup>2</sup> Based on an estimated 1,313,786,000 drug mentions at office visits in 2001.

**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, 2001**

Entry name of drug <sup>1</sup>	Number of drug mentions in thousands	Standard error in thousands	Percent distribution	Standard error of percent	Therapeutic classification <sup>2</sup>
All drug mentions. . . . .	1,313,786	73,283	100.0	...	...
Lipitor. . . . .	21,223	2,202	1.6	0.1	Hyperlipidemia
Celebrex. . . . .	17,608	1,981	1.3	0.1	NSAIDs <sup>3</sup>
Vioxx. . . . .	15,265	1,637	1.2	0.1	NSAIDs <sup>3</sup>
Claritin. . . . .	14,640	1,798	1.1	0.1	Antihistamines
Lasix. . . . .	13,834	1,695	1.1	0.1	Diuretics
Synthroid. . . . .	13,667	1,942	1.0	0.1	Thyroid agents
Premarin. . . . .	13,023	1,597	1.0	0.1	Estrogens/progestins
Tylenol. . . . .	12,626	1,761	1.0	0.1	Nonnarcotic analgesics
Prednisone. . . . .	12,234	1,510	0.9	0.1	Adrenal corticosteroids
Albuterol sulfate. . . . .	12,044	1,378	0.9	0.1	Antiasthmatics/bronchodilators
Prilosec. . . . .	11,054	1,427	0.8	0.1	Gastric antisecretory agents
A.S.A. <sup>4</sup> . . . . .	10,875	1,534	0.8	0.1	Nonnarcotic analgesics
Aspirin. . . . .	10,791	1,574	0.8	0.1	Nonnarcotic analgesics
Zocor. . . . .	10,468	1,383	0.8	0.1	Hyperlipidemia
Paxil. . . . .	10,218	1,069	0.8	0.1	Antidepressants
Atenolol. . . . .	10,098	1,350	0.8	0.1	Beta blockers
Amoxicillin. . . . .	9,940	1,237	0.8	0.1	Penicillins
Zoloft. . . . .	9,750	1,048	0.7	0.1	Antidepressants
Norvasc. . . . .	9,748	1,055	0.7	0.1	Calcium channel blockers
Glucophage. . . . .	9,663	1,439	0.7	0.1	Blood glucose regulators
All other. . . . .	1,065,016	56,835	81.1	0.5	...

... Category not applicable.

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

<sup>2</sup>Therapeutic classification is based on the *National Drug Code Directory, 1995 edition* (11). In cases where a drug had more than one therapeutic use, it was classified under its primary therapeutic use.

<sup>3</sup>NSAIDs are nonsteroidal anti-inflammatory drugs.

<sup>4</sup>A.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, 2001**

Type of provider	Number of visits in thousands <sup>1</sup>	Standard error in thousands	Percent of visits	Standard error of percent
All visits. . . . .	880,487	33,373	...	...
Physician. . . . .	843,364	33,031	95.8	0.7
Medical/nursing assistant. . . . .	180,349	19,185	20.5	1.9
R.N. <sup>2</sup> . . . . .	174,839	17,381	19.9	1.9
L.P.N. <sup>3</sup> . . . . .	100,626	12,854	11.4	1.4
Medical technician/technologist. . . . .	48,659	5,426	5.5	0.6
Physician assistant. . . . .	23,866	6,796	2.7	0.8
Nurse practitioner/midwife. . . . .	*7,382	2,570	*0.8	0.3
Other. . . . .	31,671	6,169	3.6	0.7

... Category not applicable.

\* Figure does not meet standard of reliability or precision.

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

<sup>2</sup>R.N. is registered nurse.

<sup>3</sup>L.P.N. is licensed practical nurse.

**Table 25. Number and percent of office visits with corresponding standard errors, by visit disposition: United States, 2001**

Disposition	Number of visits in thousands <sup>1</sup>	Standard error in thousands	Percent of visits	Standard error of percent
All visits . . . . .	880,487	33,373	...	...
Return at specified time . . . . .	533,737	22,784	60.6	1.2
Return if needed, P.R.N. <sup>2</sup> . . . . .	220,815	13,630	25.1	1.0
No followup planned . . . . .	87,540	9,386	9.9	1.0
Referred to other physician . . . . .	49,580	3,758	5.6	0.4
Telephone followup planned . . . . .	15,684	1,721	1.8	0.2
Admitted to hospital . . . . .	3,258	552	0.4	0.1
Other disposition . . . . .	14,216	2,901	1.6	0.3
Blank . . . . .	19,803	3,587	2.2	0.4

... Category not applicable.

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

<sup>2</sup>P.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, 2001**

Time spent with physician	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits . . . . .	880,487	33,373	100.0	...
Visits at which no physician was seen . . . . .	37,122	6,488	4.2	0.7
Visits at which a physician was seen . . . . .	843,364	33,031	95.8	0.7
Total . . . . .	843,364	33,031	100.0	0.0
1–5 minutes . . . . .	34,424	3,877	4.1	0.4
6–10 minutes . . . . .	167,627	11,653	19.9	1.2
11–15 minutes . . . . .	316,998	18,245	37.6	1.2
16–30 minutes . . . . .	266,933	12,984	31.7	1.3
31–60 minutes . . . . .	54,426	4,547	6.5	0.5
61 minutes and over . . . . .	2,956	474	0.4	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, 2001**

Physician specialty	Mean time in minutes spent with physician <sup>1</sup>	Standard error of mean	25th percentile	Median	75th percentile
All visits . . . . .	18.6	0.3	11.6	14.7	19.8
Psychiatry . . . . .	32.4	1.7	18.4	26.6	44.9
Neurology . . . . .	26.4	1.1	14.5	19.3	29.5
Cardiovascular diseases . . . . .	22.2	1.1	14.2	16.4	28.3
Internal medicine . . . . .	19.4	0.8	13.3	14.6	19.9
Urology . . . . .	19.4	1.0	14.0	14.7	19.5
General surgery . . . . .	18.9	1.1	9.8	14.3	19.9
Ophthalmology . . . . .	18.5	0.9	9.9	14.6	19.8
General and family practice . . . . .	17.1	0.6	10.1	14.6	19.5
Obstetrics and gynecology . . . . .	17.0	0.8	9.9	14.6	19.0
Otolaryngology . . . . .	16.0	0.8	9.8	14.5	19.4
Dermatology . . . . .	15.8	0.8	9.5	14.2	18.1
Pediatrics . . . . .	15.6	0.7	9.7	14.4	17.4
Orthopedic surgery . . . . .	15.4	0.7	9.3	14.2	18.3
All other specialties . . . . .	22.5	1.2	13.6	15.0	28.2

<sup>1</sup> Only visits where a physician was seen are included.

**Table 28. Physician-level estimates with corresponding standard errors for selected practice characteristics for office-based physicians: United States, 2001**

Practice characteristic	All specialties				Standard error			
	All specialties	Primary care	Surgical specialties	Medical specialties	All specialties	Primary care	Surgical specialties	Medical specialties
Estimated number of physicians								
All office-based physicians . . . . .	309,557	155,794	68,334	85,429	9,500	7,259	3,995	4,846
Percent distribution								
Total sample. . . . .	100.0	100.0	100.0	100.0	...	...	...	...
Number of in-scope office locations <sup>1</sup>								
One . . . . .	85.7	91.7	79.5	79.7	1.4	1.8	2.6	3.0
More than one . . . . .	14.3	8.3	20.5	20.3	1.4	1.8	2.6	3.0
Number of days practicing during random NAMCS week <sup>1</sup>								
0 . . . . .	18.5	17.3	18.7	20.4	1.4	2.1	2.1	2.3
1-2 . . . . .	17.0	11.0	26.2	20.5	1.4	1.6	2.7	2.9
3-4 . . . . .	39.1	40.6	41.4	34.4	1.8	2.9	2.7	3.6
5 or more . . . . .	25.4	31.1	13.6	24.7	1.6	2.7	2.3	2.9
Type of practice <sup>1</sup>								
Solo . . . . .	33.3	31.6	35.4	34.8	1.9	2.8	3.4	3.2
Single-specialty group . . . . .	40.8	40.2	40.9	41.8	2.1	3.1	3.4	3.8
Multispecialty group . . . . .	25.9	28.2	23.7	23.3	1.7	2.7	2.9	3.3
Percent of physicians								
Type of consultation <sup>1 2</sup>								
Hospital visits . . . . .	77.1	79.2	81.5	69.5	1.7	2.6	2.9	3.7
Telephone consultation . . . . .	73.9	80.9	63.1	69.2	1.9	2.5	3.7	3.8
Home visits . . . . .	17.8	24.4	9.0	12.5	1.8	2.9	2.0	2.8
E-mail/Internet consultation . . . . .	6.8	6.8	6.2	7.2	1.3	1.6	1.7	2.2
Mean number in week <sup>3</sup>								
Office visits . . . . .	79.9	93.8	75.5	58.0	2.2	3.2	4.0	2.4
Telephone consultation . . . . .	21.8	27.2	13.1	16.1	1.3	2.1	1.1	1.5
Hospital visits . . . . .	17.0	12.5	14.5	28.9	0.9	0.9	1.7	2.5
Home visits . . . . .	5.0	6.0	2.4	3.2	0.7	1.0	0.4	0.6
E-mail/Internet consultations . . . . .	6.9	6.1	8.3	7.1	1.2	1.9	2.4	2.1
Mean percent								
Percent of revenue from selected sources <sup>1 4</sup>								
Private insurance . . . . .	49.2	52.8	44.8	45.8	1.1	1.9	1.7	1.9
Medicare . . . . .	30.2	26.5	34.6	33.5	0.8	1.4	1.5	1.7
Medicaid . . . . .	10.2	11.7	7.0	10.1	0.6	1.0	0.6	1.0
Other sources . . . . .	9.5	8.0	13.1	9.2	0.7	0.9	2.2	1.4

See footnotes at end of table.

**Table 28. Physician-level estimates with corresponding standard errors for selected practice characteristics for office-based physicians: United States, 2001—Con.**

Practice characteristic	All specialties	Primary care	Surgical specialties	Medical specialties	All specialties	Primary care	Surgical specialties	Medical specialties
Percent distribution								
Number of managed care contracts								
None . . . . .	10.0	8.3	9.0	13.7	1.2	1.8	1.9	2.1
1–2 . . . . .	7.9	8.0	7.8	7.9	1.1	1.9	1.7	2.0
3–10 . . . . .	37.6	41.8	34.1	32.7	2.1	3.0	3.1	3.2
More than 10 . . . . .	35.1	34.3	40.7	32.1	2.0	2.8	3.4	3.7
Blank . . . . .	9.4	7.6	8.3	13.7	1.1	1.6	1.7	2.7
Percent of physicians								
Percent accepting new patients by pay source <sup>1 5</sup>								
Any patients . . . . .	94.8	92.4	98.3	96.3	1.0	1.7	0.7	1.7
Self-pay . . . . .	90.9	88.3	94.5	92.8	1.1	2.0	1.5	2.0
Medicare . . . . .	81.6	74.1	93.5	85.9	1.4	2.2	1.9	2.6
Noncapitated private insurance . . . . .	76.0	76.7	81.8	70.0	1.8	2.7	2.5	3.3
Medicaid . . . . .	72.0	68.0	80.0	72.8	1.9	3.0	2.7	3.1
Worker's compensation . . . . .	60.0	51.4	82.1	58.1	2.0	2.9	2.8	4.0
Capitated private insurance . . . . .	56.6	59.1	49.8	57.5	2.1	3.0	3.9	3.2
No charge/charity . . . . .	49.8	45.7	60.4	49.0	2.3	3.3	3.4	4.2
Percent distribution								
Electronic patient medical records								
Yes . . . . .	18.2	15.7	20.4	20.9	1.8	2.3	2.6	3.2
No . . . . .	76.5	79.3	75.2	75.5	2.0	2.8	3.1	3.4
Blank . . . . .	5.3	5.0	4.4	6.6	0.9	1.4	1.4	1.5

. . . Category not applicable.

<sup>1</sup>Significant variation among some specialty grouping estimates  $p > .05$ .

<sup>2</sup>Percent of physicians reporting any consultations during a typical week of work. Missing values ranged from 12 to 16 percent depending on type of consultation.

<sup>3</sup>Mean number of consultations during a typical week of work for physicians with any of that type of consultations.

<sup>4</sup>Missing values ranged from 10 to 20 percent depending on revenue source.

<sup>5</sup>Missing values ranged from 7 to 17 percent depending on payment method. The missing value for accepting any new patients is 0.6 percent.

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 2001, 1,252 of the in-scope physicians who participated in the NAMCS, 1,013 of them completed 24,281 Patient Record forms, and 239 physicians reported no patients during their sampled week. Of the physicians who completed Patient Record forms, 98.2 percent (N=991) responded fully or adequately, and 1.8 percent (N=22) responded minimally, for an unweighted physician participation rate of 64.4 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 in the survey. In most cases, physicians' and/or their staff completed the information requested on the Patient Record forms (see [figure I](#)). However, in 47.6 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 also reflects part of the measurement error, but does not measure any systematic biases in the data. The chances are 95 out of 100 that an estimate from the sample differs from the value that would

**Table I. Coefficients appropriate for determining approximate relative standard errors, by type of estimate and physician specialty: National Ambulatory Medical Care Survey, 2001**

Type of estimate and physician specialty	Coefficient for use with estimates in thousands		Lowest reliable estimate (in thousands)
	A	B	
Visits			
Overall totals . . . . .	0.002957	73.571	845
General and family practice . . . . .	0.013821	85.899	1,128
Internal medicine . . . . .	0.016501	93.254	1,269
Pediatrics . . . . .	0.008278	80.873	990
General surgery . . . . .	0.027196	23.793	379
Obstetrics and gynecology . . . . .	0.021101	89.574	1,300
Orthopedic surgery . . . . .	0.010275	36.272	455
Cardiovascular diseases . . . . .	0.015536	38.642	519
Dermatology . . . . .	0.013947	37.355	491
Urology . . . . .	0.009094	18.632	230
Psychiatry . . . . .	0.012678	34.010	440
Neurology . . . . .	0.007308	10.756	130
Ophthalmology . . . . .	0.008430	54.382	667
Otolaryngology . . . . .	0.014817	24.384	324
All other specialties . . . . .	0.015727	153.384	2,065
Drug mentions			
Overall totals . . . . .	0.006016	159.102	1,894
General and family practice . . . . .	0.017062	277.825	3,809
Internal medicine . . . . .	0.024845	278.687	4,277
Pediatrics . . . . .	0.012969	135.689	1,761
General surgery . . . . .	0.057824	28.457	884
Obstetrics and gynecology . . . . .	0.025194	221.594	3,419
Orthopedic surgery . . . . .	0.014273	59.414	785
Cardiovascular diseases . . . . .	0.022015	126.910	1,867
Dermatology . . . . .	0.019052	69.523	980
Urology . . . . .	0.017423	31.958	440
Psychiatry . . . . .	0.015260	82.808	1,108
Neurology . . . . .	0.010245	23.910	300
Ophthalmology . . . . .	0.020743	84.239	1,216
Otolaryngology . . . . .	0.022887	35.571	530
All other specialties . . . . .	0.018602	527.536	7,389

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 0.019291 and 47.620, respectively. The corresponding coefficients for estimates of drug mentions in thousands are 0.026170 and 101.047. To perform analyses of NAMCS data on visits to M.D.'s only, excluding doctors of osteopathy, contact the Ambulatory Care Statistics Branch.

be obtained from a complete census by less than twice the standard error.

The standard errors presented in the tables and used in tests of significance for this report were estimated using SUDAAN software. SUDAAN computes standard errors by using a first-order Taylor approximation of the deviation of estimates from their expected values. A description of the software and the approach it uses has been published (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](#).

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

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 2001, 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.

**Table II. Characteristics of the 2001 National Ambulatory Medical Care Survey, physician respondents and nonrespondents**

Physician characteristic <sup>1</sup>	Number of sampled in-scope physicians <sup>2</sup>	Total sample percent distribution <sup>3</sup> (weighted)	Responding physician distribution <sup>4</sup> (weighted)	Nonresponding physician distribution <sup>5</sup> (weighted)	Response rate <sup>6</sup>
All office-based physicians . . . . .	1,910	100.0	100.0	100.0	0.647
Age					
Under 50 . . . . .	943	51.0	51.9	49.5	0.658
50 years and over . . . . .	967	49.0	48.1	50.5	0.636
Sex					
Male . . . . .	1,643	83.1	81.9	85.2	0.638
Female . . . . .	267	16.9	18.1	14.8	0.691
Region <sup>7</sup>					
Northeast . . . . .	477	23.8	20.1	30.4	0.548
Midwest . . . . .	385	20.9	22.8	17.4	0.706
South . . . . .	616	32.5	33.0	31.5	0.658
West . . . . .	432	22.9	24.1	20.7	0.681
Metropolitan status <sup>7</sup>					
MSA area <sup>8</sup> . . . . .	1,693	87.2	85.6	90.2	0.635
Non-MSA area <sup>8</sup> . . . . .	217	12.8	14.5	9.8	0.730
Type of doctor					
Doctor of medicine . . . . .	1,789	94.1	93.9	94.5	0.645
Doctor of osteopathy . . . . .	121	5.3	6.1	5.5	0.670
Specialty					
General and/or family practice . . . . .	193	17.8	18.0	17.6	0.652
Internal medicine . . . . .	140	15.2	15.1	15.4	0.641
Pediatrics . . . . .	121	9.3	10.8	7.1	0.737
General surgery . . . . .	105	4.2	4.2	4.1	0.655
Obstetrics and gynecology . . . . .	125	8.2	7.6	9.5	0.594
Orthopedic surgery . . . . .	189	5.2	5.2	5.1	0.655
Cardiovascular diseases . . . . .	178	4.5	4.2	5.0	0.605
Dermatology . . . . .	116	2.4	2.4	2.3	0.654
Urology . . . . .	112	2.3	2.5	1.9	0.701
Psychiatry . . . . .	133	5.6	5.6	5.5	0.653
Neurology . . . . .	145	2.0	1.9	2.1	0.622
Ophthalmology . . . . .	109	4.4	4.7	3.8	0.697
Otolaryngology . . . . .	99	1.9	1.7	2.3	0.576
All other specialties . . . . .	145	16.9	16.1	18.4	0.616
Specialty type					
Primary care . . . . .	572	50.4	50.8	49.6	0.652
Surgical specialty . . . . .	653	22.4	23.0	21.4	0.663
Medical specialty . . . . .	685	27.2	26.3	29.1	0.623
Practice type					
Solo . . . . .	632	32.0	29.8	36.0	0.602
Two physicians . . . . .	151	7.8	8.6	6.4	0.713
Group/HMO <sup>9</sup> . . . . .	672	34.6	35.1	33.6	0.656
Medical school/government . . . . .	40	1.8	2.1	1.3	0.741
Other . . . . .	38	2.0	2.4	1.2	0.787
Unclassified . . . . .	377	21.8	22.0	21.5	0.653

<sup>1</sup> Characteristic information is from the master files of the American Medical Association and the American Osteopathic Association.  
<sup>2</sup> In-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.  
<sup>3</sup> Total physicians are those who were selected from the master files of the American Medical Association and the American Osteopathic Association.  
<sup>4</sup> Responding physicians are those who were in-scope and agreed to participate in the NAMCS survey.  
<sup>5</sup> Nonresponding physicians are those who were in-scope and refused to participate in the NAMCS survey.  
<sup>6</sup> Numerator 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.  
<sup>7</sup> Significant difference in response rate  $p > .05$ .  
<sup>8</sup> MSA is metropolitan statistical area.  
<sup>9</sup> HMO is health maintenance organization.

**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 1.4 for various data items.

*Adjustments for survey nonresponse*—The weighted response rate for the 2001 NAMCS was 64.7 percent. [Table II](#) presents weighted characteristics of NAMCS respondents and nonrespondents, along with weighted response rates. Distributions were similar, with the exception of physician specialty where physicians not in one of the major specialty groups were less likely to cooperate. The effect of this differential response is minimized in the visit estimates because NAMCS uses a nonresponse adjustment factor that takes the physician specialty into account.

*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 (26.8 percent), was patient referred for this visit (17.1 percent), how many past visits in the last 12 months (6.8 percent), patient’s PCP (6.1 percent), major reason for this visit (5.1 percent), episode of care (11.4 percent), do other physicians share patient’s care for this problem or diagnosis (14.3 percent), and cause of injury (36.6 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 3-digit ICD-9-CM codes for primary diagnosis. Imputations were performed for the following variables: birth year (1.7 percent), sex (2.6 percent), race (21.4 percent), and time spent with physician (17.3 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 inequality was used to establish the critical value for statistically significant differences (0.05 level of significance) based on the number of possible comparisons within a particular variable (or combination of variables) of interest. Terms relating to differences such as “greater than” or “less than” indicate that the difference is statistically significant. A lack of comment regarding the difference between any

two estimates does not mean that the difference was tested and found to be not significant.

In the tables, estimates of office visits have been rounded to the nearest thousand. Consequently, estimates will not always add to totals. Rates and percents were calculated from original unrounded figures and do not necessarily agree with 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 (22). 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.

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

**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 <sup>1</sup>
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, E911–E915, E918, E921, E923, E925–E926, E928.3, E928.8, E929.0–E929.5, E929.8
Mechanism unspecified . . . . .	E887, E828.9, 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

<sup>1</sup>Based on the "Supplementary Classification of External Causes of Injury and Poisoning," *International Classification of Diseases, 9th Revision, Clinical Modification (ICD–9–CM) (7)*.

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.

### Population figures and rate calculation

The 2001 visit rates for age, sex, race, geographic region, and metropolitan status use Census 2000-based post-censal estimates of the civilian noninstitutional population of the United States as of July 1, 2001, 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>.

The 2001 MSA population estimates based on Census 2000 were not available from the U.S. Census Bureau. Therefore, the 2002 MSA estimates, which were available, were used to calculate the proportions of population in MSA and non-MSA areas. The Census 2000-based 2001 total population estimate was then multiplied by those proportions to generate population estimates by MSA status for this report.

Population estimates for race groups in the 2001 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) (22). 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. The NAMCS and

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

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

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 2001 population estimates indicate that multiple-race persons account for 1.4 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 2001 are probably slight overestimates for the

single-race categories and underestimates for the multiple race category.

### 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 patients. 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. Information on the episode of care was not collected if the major reason for visit was a preventive care visit.

*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

Form Approved OMB No. 0920-0234 Exp. Date 08/31/2003 CDC 64.148

FORM <b>NAMCS-30A</b> (10-17-2000)	U.S. DEPARTMENT OF COMMERCE Economics and Statistics Administration U.S. CENSUS BUREAU ACTING AS DATA COLLECTION AGENT FOR THE U.S. Department of Health and Human Services Centers for Disease Control and Prevention National Center for Health Statistics	PATIENT RECORD NO.:  <div style="text-align: center; font-size: 2em; font-weight: bold;">A</div>	PATIENT'S NAME:
NATIONAL AMBULATORY MEDICAL CARE SURVEY 2001/2002 PATIENT RECORD			
Assurance of confidentiality - All information which would permit identification of an individual, a practice, or an establishment will be held confidential, will be used only by persons engaged in and for the purpose of the survey and will not be disclosed or released to other persons or used for any other purpose without consent of the individual or the establishment in accordance with section 308(d) of the Public Health Service Act (42 USC 242m).			

1. PATIENT INFORMATION		2. REASON FOR VISIT	
<b>a. Date of visit</b> Month Day Year _____ <b>b. ZIP code</b> _____ <b>c. Date of birth</b> Month Day Year _____ <b>d. Sex</b> 1 <input type="checkbox"/> Female 2 <input type="checkbox"/> Male	<b>e. Ethnicity</b> 1 <input type="checkbox"/> Hispanic or Latino 2 <input type="checkbox"/> Not Hispanic or Latino <b>f. Race - Mark (X) one or more.</b> 1 <input type="checkbox"/> White 4 <input type="checkbox"/> Native Hawaiian/ 2 <input type="checkbox"/> Black/African American 5 <input type="checkbox"/> American Indian/ 3 <input type="checkbox"/> Asian 6 <input type="checkbox"/> Alaska Native <b>g. Does patient use tobacco?</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No 3 <input type="checkbox"/> Unknown <b>h. Primary expected source of payment for this visit - Mark (X) one.</b> 1 <input type="checkbox"/> Private insurance 5 <input type="checkbox"/> Self-pay 2 <input type="checkbox"/> Medicare 6 <input type="checkbox"/> No charge/Charity 3 <input type="checkbox"/> Medicaid/SCHIP 7 <input type="checkbox"/> Unknown 4 <input type="checkbox"/> Worker's Compensation 8 <input type="checkbox"/> Other	<b>Patient's complaint(s), symptom(s), or other reason(s) for this visit - Use patient's own words.</b> (1) Most important:  (2) Other:  (3) Other:	
3. CONTINUITY OF CARE			
<b>a. Are you the patient's primary care physician?</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No 3 <input type="checkbox"/> Unknown Was patient referred for this visit? 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No 3 <input type="checkbox"/> Unknown	<b>b. Have you or anyone in your practice seen this patient before?</b> 1 <input type="checkbox"/> Yes, established patient - How many past visits in the last 12 months? Exclude this visit. 1 <input type="checkbox"/> None 2 <input type="checkbox"/> 1-2 3 <input type="checkbox"/> 3-5 4 <input type="checkbox"/> 6+ 5 <input type="checkbox"/> Unknown 2 <input type="checkbox"/> No, new patient	<b>c. Major reason for this visit</b> 1 <input type="checkbox"/> Acute Problem (<3 mos. onset) 2 <input type="checkbox"/> Chronic problem, routine 3 <input type="checkbox"/> Chronic problem, flare-up 4 <input type="checkbox"/> Pre-/Post-surgery 5 <input type="checkbox"/> Preventive care (e.g., routine prenatal, general exam, well-baby, screening, insurance exam)	<b>d. Do other physicians share patient's care for this problem or diagnosis?</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No 3 <input type="checkbox"/> Unknown
4. INJURY/POISONING/ADVERSE EFFECT		5. PHYSICIAN'S DIAGNOSIS FOR THIS VISIT	
<b>a. Is this visit related to an injury, or poisoning, or adverse effect of medical treatment?</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No - SKIP to item 5.	<b>b. Cause of injury, poisoning, or adverse effect - Describe the place, intentionality, and events that preceded the injury, poisoning, or adverse event (e.g., allergy to penicillin, bee sting, pedestrian hit by car driven by drunk driver, wife beaten with fists by husband, heroin overdose, infected stunt, etc.).</b> _____	<b>As specifically as possible, list diagnoses related to this visit including chronic conditions.</b> (1) Primary diagnosis:  (2) Other:  (3) Other:	
6. DIAGNOSTIC/SCREENING SERVICES			
Mark (X) all ordered or provided at this visit.			
1 <input type="checkbox"/> NONE 2 <input type="checkbox"/> General medical exam 3 <input type="checkbox"/> Other exam - Specify site (e.g., breast, rectal) <input checked="" type="checkbox"/>	5 <input type="checkbox"/> Urinalysis (UA) 6 <input type="checkbox"/> PAP test 7 <input type="checkbox"/> PSA (prostate specific antigen) 8 <input type="checkbox"/> Hematocrit/Hemoglobin 9 <input type="checkbox"/> CBC (complete blood count) 10 <input type="checkbox"/> Cholesterol 11 <input type="checkbox"/> Other blood test	12 <input type="checkbox"/> EKG/ECG (electrocardiogram) 13 <input type="checkbox"/> Culture (e.g., throat) - Specify <input checked="" type="checkbox"/>	17 <input type="checkbox"/> Scope procedure (e.g., endoscopy) - Specify <input checked="" type="checkbox"/> 18 <input type="checkbox"/> Other service - Specify <input checked="" type="checkbox"/>
7. COUNSELING/EDUCATION/THERAPY		8. SURGICAL PROCEDURES	
Mark (X) all ordered or provided at this visit. Exclude medications.		List up to 2 surgical procedures ordered, scheduled, or performed at this visit.	
1 <input type="checkbox"/> NONE 2 <input type="checkbox"/> Asthma education 3 <input type="checkbox"/> Diet/Nutrition 4 <input type="checkbox"/> Exercise 5 <input type="checkbox"/> Growth/Development 6 <input type="checkbox"/> Mental health/Stress management	7 <input type="checkbox"/> Physiotherapy 8 <input type="checkbox"/> Psychotherapy 9 <input type="checkbox"/> Tobacco use/exposure 10 <input type="checkbox"/> Weight reduction 11 <input type="checkbox"/> Other	(1) _____ (2) _____ 1 <input type="checkbox"/> Ordered/Scheduled 2 <input type="checkbox"/> Performed 1 <input type="checkbox"/> Ordered/Scheduled 2 <input type="checkbox"/> Performed	
9. MEDICATIONS & INJECTIONS		10. VISIT DISPOSITION	
<b>a. What is the total number of drugs prescribed or provided at this visit?</b> _____ Number of drugs Include Rx and OTC medications, immunizations, allergy shots, anesthetics, and dietary supplements that were ordered, supplied, administered or continued during this visit. <b>b. List up to six medication/injection names below.</b> (1) _____ (4) _____ (2) _____ (5) _____ (3) _____ (6) _____		<b>Mark (X) all that apply.</b> 1 <input type="checkbox"/> No follow-up planned 2 <input type="checkbox"/> Return if needed, PRN 3 <input type="checkbox"/> Refer to other physician 4 <input type="checkbox"/> Return at specified time 5 <input type="checkbox"/> Telephone follow-up planned 6 <input type="checkbox"/> Admit to hospital 7 <input type="checkbox"/> Other	
11. PROVIDERS SEEN		12. TIME SPENT WITH PHYSICIAN	
<b>Mark (X) all that apply.</b> 1 <input type="checkbox"/> Physician 2 <input type="checkbox"/> RN 3 <input type="checkbox"/> LPN 4 <input type="checkbox"/> Medical/nursing assistant 5 <input type="checkbox"/> Nurse practitioner/midwife 6 <input type="checkbox"/> Physician assistant 7 <input type="checkbox"/> Medical technician/technologist 8 <input type="checkbox"/> Other		Minutes _____ Enter zero if no physician seen <div style="text-align: center; font-size: 2em; font-weight: bold;">A</div>	

Figure I. Patient Record form

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 and/or provider*—The primary care physician and/or 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.

*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 visits where medical care was not provided, such as visits made to drop off specimens, pay bills, or make appointments.

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