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National Hospital Ambulatory Medical Care Survey: 2003 Outpatient Department Summary

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Abstract

Objectives—This report describes ambulatory care visits to hospital outpatient departments (OPDs) in the United States. Statistics are shown on selected hospital, clinic, patient, and visit characteristics, as well as selected trends in OPD visits since 1993. The report highlights variation in use across the major types of OPD clinics surveyed.

Methods—The data shown in this report were collected from the 2003 National Hospital Ambulatory Medical Care Survey (NHAMCS). NHAMCS is a national probability sample survey of visits to emergency and outpatient departments of non-Federal, short stay, and general hospitals in the United States. Sample data are weighted to produce annual national estimates.

Results—During 2003, an estimated 94.6 million visits were made to hospital OPDs in the United States, about 33.1 visits per 100 persons. This rate represents a 35-percent increase since 1993, although rates have been stable since 1999. Infants under 12 months of age had a visit rate of 88.7 visits per 100 persons, a rate that increased by 23 percent since 1993. Increasing trends in OPD visit rates were found for persons 50–64 years of age (up by 30 percent), 13–21 years of age (up by 32 percent), 22–49 years of age (up by 34 percent), and 1–12 years of age (up by 71 percent). Females had higher OPD visit rates than males (39.6 compared with 26.4 visits per 100 persons), and black or African American persons had higher OPD visit rates than white persons (59.7 compared with 29.9 visits per 100 persons). Medicaid and State Children's Health Insurance Program patients used OPDs for preventive care services more frequently than private pay patients. The preventive care visit rate by Hispanic and Latino patients was twice the rate by non-Hispanic patients. Diphtheria, tetanus, and acellular pertussis (DTaP) was the most frequently provided vaccine to children under age 18 years. Between 1993–94 and 2003, the proportion of visits involving only mid-level providers increased from 5.9 to 12.6 percent of visits.

Keywords: NHAMCS • outpatient department visits • diagnoses • medications • ICD–9–CM

Introduction

The National Hospital Ambulatory Medical Care Survey (NHAMCS) was inaugurated in 1992 to gather, analyze, and disseminate information about the health care provided by OPDs and emergency departments (EDs). NHAMCS is part of the ambulatory component of the National Health Care Survey, a family of surveys that measures health care use across various types of providers. More information about the National Health Care Survey can be found at the Centers for Disease Control and Prevention's (CDC), National Center for Health Statistics (NCHS) Internet address: www.cdc.gov/nchs/nhcs.htm.

Ambulatory medical care is the predominant method of providing health care services in the United States and occurs in a wide range of settings. The largest proportion of ambulatory care services occurs in physicians' offices (1). Since 1973, NCHS has collected data on patient visits to physicians' offices through the National Ambulatory Medical Care Survey (NAMCS).

Acknowledgments

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However, visits to hospital OPDs and EDs, which represent a significant segment of ambulatory care visits, are not included in the NAMCS. Furthermore, hospital ambulatory patients are known to differ from office patients in certain demographic and medical characteristics (1). OPDs account for approximately 9 percent of all ambulatory medical care in the United States (1). More information on the 2003 NAMCS and NHAMCS-ED annual summaries is available (2,3).

This report presents data from the 2003 NHAMCS, a nationally representative survey of hospital OPD use. Hospital, patient, clinic, and visit characteristics are described. In addition, data are presented on trends in OPD visit rates by age, expected source of payment, and mid-level providers from 1993 to 2003. Vital signs, including temperature and blood pressure readings, are reported for the first time. The upper limit on the number of medications recorded increased from six to eight and affected drug mention estimates.

Data Highlights

Outpatient department utilization

- From 1993 to 2003, the annual OPD visit rate increased by 35 percent, from 24.6 to 33.1 visits per 100 persons. Infants under 12 months of age had a visit rate of 88.7 visits per 100 persons, an increase of 23 percent since 1993. Increasing trends in OPD visit rates were found for persons 50–64 years of age (up by 30 percent), 13–21 years of age (up by 32 percent), 22–49 years of age (up by 34 percent), and 1–12 years of age (up by 71 percent).
- Hispanic and Latino patients accounted for 15.7 percent of the visits.
- Approximately 58.6 percent of physician-supervised OPD visits were to general medical clinics, and 13.8 percent were to pediatric clinics.
- Private insurance was the most frequent expected source of payment, accounting for 39.4 percent of visits, followed by Medicaid and State Children's Health Insurance Program (SCHIP) (27.4 percent) and Medicare (13.7 percent). Use rates were highest for Medicaid and SCHIP enrollees (86.3 visits per 100 persons) and lowest for those with private insurance (19.3 visits per 100 persons).

Continuity of care

- The overwhelming majority of visits to hospital OPDs were made by patients with previous visits to the clinic (83.3 percent); 77.3 percent had visited the clinic one or more times during the last 12 months. About one of four visits (25.2 percent) were by established patients with six or more visits to the clinic during the past year.
- About 36.0 percent of all OPD visits were to the patient's primary care provider.
- In three of 10 visits, other physicians also shared care for the patient's condition.
- Overall, 42.4 percent of visits were followup visits for a previously seen condition.
- Preventive care visits accounted for 18.0 percent of all OPD visits; 75.2 percent of preventive care visits were made by females. Privately insured patients did not use OPDs for preventive care services (2.7 per 100 persons) as frequently as Medicaid or SCHIP patients (21.9 per 100 persons). Hispanic and Latino patients used OPDs for preventive care services (11.0 per 100 persons) twice as often as non-Hispanics (5.2 per 100 persons).

Conditions seen

- The leading diagnoses by age group were: infants and children (under 12 years of age)—routine infant or child health check; adolescents through adults (13–49 years of age)—normal pregnancy; middle-aged persons (50–64 years of age)—essential hypertension; and seniors (65 years of age and over)—malignant neoplasms.

Services provided

- The patient's temperature was taken at 44.9 percent of visits with an average temperature of 98.1°F (36.7°C).
- About 167 million drugs were prescribed at approximately 65.2 percent of OPD visits. There were 1.8 drug mentions per visit.
- Vaccines were provided at 8.0 percent of visits by children under age 18 years. The most frequently provided vaccine was diphtheria, tetanus, and acellular pertussis (DTaP).

Providers seen

- A nurse practitioner, midwife, or physician assistant was seen at 14.5 percent of visits. Since 1993–94, the percentage of visits seen by these mid-level providers without a physician present increased from 5.9 to 12.6 percent in 2003.

Methods

The data shown in this report are from the 2003 NHAMCS, a national probability sample survey conducted by CDC, NCHS, Division of Health Care Statistics. The survey was conducted from December 29, 2002, through December 28, 2003.

The target universe of the NHAMCS is in-person visits made in the United States to EDs and OPDs of non-Federal, short-stay hospitals (hospitals with an average stay of less than 30 days) or those whose specialty is general (medical or surgical) or children's general. EDs that operate 24 hours a day are considered within the scope of the ED component; EDs that operate less than 24 hours are included in the OPD component of the NHAMCS.

The hospital sampling frame consisted of hospitals listed in the 1991 Verispan Hospital Database (VHD), which was updated using the 2000 VHD to allow the inclusion of hospitals that opened or changed their eligibility status since the previous sample in 1991. The VHD was formerly known as the SMG Hospital Database. An additional sample of 66 hospitals (identified as located in nonmetropolitan statistical areas or proprietary) was selected from the 2002 VHD to provide more reliable hospital estimates for these categories (see the "Technical Notes" for details).

In 2003, a multistage probability sample was used to collect information on visits to OPDs. The design included four stages for the majority of hospitals and three stages for the additional sample of 66 hospitals. The four-stage design involves a) geographic primary sampling units (PSUs), b) hospitals that have EDs or OPDs within PSUs, c) emergency service areas (ESAs) within EDs or clinics within OPDs, and d) patient visits within ESAs and clinics (4). The PSU sample consists of 112 PSUs that comprise a probability subsample of the PSUs used in the 1985–94 National Health Interview Survey (NHIS). The three-stage design excludes the PSU stage. See the "Technical Notes" for more detail on the supplemental three-stage sample.

Together, a sample of 546 hospitals was selected for the 2003 NHAMCS of which 272 were in scope and had eligible OPDs. A total of 983 clinics from 231 OPDs participated in the study. The overall unweighted two-stage sampling response rate was 72.5 percent, adjusted to exclude clinics and OPDs that participated at a minimal level (see the "Technical Notes" for details).

A clinic was defined as an administrative unit of the OPD where ambulatory medical care is provided under the supervision of a physician and for which the hospital kept patient volume statistics. Clinics specializing only in ancillary services (e.g., chemotherapy, dialysis, radiation therapy, and physical rehabilitation) and ambulatory surgery were out-of-scope for the NHAMCS. If an OPD had five or fewer clinics, then all were included in the sample. When an OPD had more than five clinics, the clinics were assigned into one of six specialty groups (i.e., general medicine, surgery, pediatrics, obstetrics and gynecology, substance abuse, and other). Surgery clinics differ from ambulatory surgical centers in OPDs in that the former involve visits to surgeons for diagnosis of problems requiring surgery and for postsurgery followup. Ambulatory surgery centers provide surgical procedures that do not require hospitalization. Within these specialty groups, clinics were grouped into clinic sampling units (SU), and a sample of SUs proportional to the total expected number of visits to the clinic was selected. Starting in 2001, clinic sampling procedures were changed to limit the sample of clinic SUs within each specialty group to two clinic SUs. The increased visit base led to increased precision for most estimates.

Hospital staff were asked to complete Patient Record forms (PRFs) (see figure I in the "Technical Notes") for a systematic random sample of patient visits occurring during a randomly assigned 4-week reporting period. The number of PRFs completed for OPDs was 34,492.

Because the estimates shown in this report are based on a sample rather than on the entire universe of OPD visits, they are subject to sampling variability. The "Technical Notes" at the end of this report include an explanation of sampling errors with guidelines for judging the precision of the estimates. The standard errors reported here are calculated using Taylor approximations in SUDAAN, which take into account the complex sample design of the NHAMCS (5). Data on selected OPD use trends for 1993–2003 are also shown. A weighted least-squares regression analysis was used to determine the significance of trends at the 0.05 level.

The U.S. Census Bureau was responsible for data collection. Data processing operations and medical coding were performed by Constella Group Inc., Durham, North Carolina. As part of the quality-assurance procedure, a 10-percent quality-control sample of survey records was independently keyed and coded. Coding error rates ranged between 0.0 and 0.7 percent for various survey items.

Several of the tables in this report present rates of OPD visits per population. The population figures used in calculating these rates are based on Census Bureau monthly postcensal estimates of the civilian non-institutionalized population of the United States as of July 1, 2003. These population estimates are based on postcensal estimates from Census 2000 and are available from the Census Bureau. For some rates, other denominators were used. See the "Technical Notes" for more detail on population figures and rate calculations. Estimates shown in the tables and figure for specific race categories reflect visits where only a single race was reported. See the "Technical Notes" for more detail on race estimates.

In April 2003, the Privacy Rule of the Health Insurance Portability and Accountability Act (HIPAA) was implemented to establish minimum Federal standards for safeguarding the privacy of individually identifiable health information. Therefore, the NHAMCS implemented additional data-collection procedures to help providers assure patient confidentiality. See the "Technical Notes" for more information.

Results

In 2003, there were an estimated 94.6 million visits to hospital OPDs, about 33.1 visits per 100 persons. This visit rate represents a 35-percent increase over the rate of 24.6 visits per 100 persons observed in 1993. The overall visit rate, however, has leveled off since 1999 when it reached about 30 visits per 100 persons. Although the population of the United States increased by 12 percent since 1993, the number of visits to OPD clinics increased by 51 percent during this time period, from 62.5 to 94.6 million visits annually in 2003 (6).

Patient characteristics

OPD visits by patient's sex, age, race, and ethnicity are shown in table 1. The female visit rate was higher than the rate for males overall, driven by differences in the 15–44-year-old age groups (figure 1). Figure 2 shows annual visit rates for more detailed age groups (infants, children, adolescents, young adults, adult, middle-aged persons, and seniors). The visit rate to OPDs was highest for infants under 1 year of age (88.7 visits per 100 persons). From 1993 through 2003, increasing trends in visit rates were found for all age groups, except for seniors 65 years and over: infants under 1 year (up by 23 percent), middle-aged persons 50–64 years (up by 30 percent), adolescents 13–21 years (up

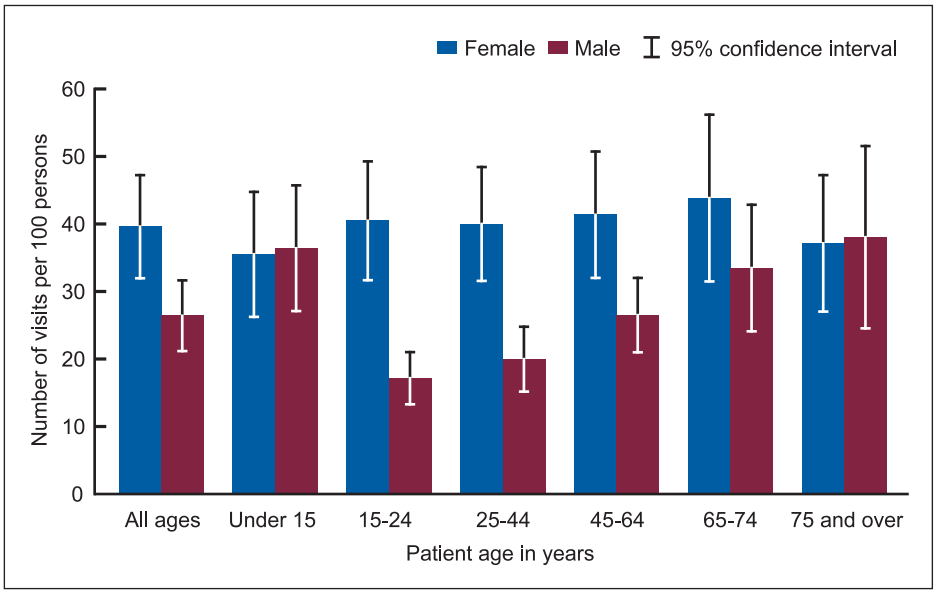


Figure 1. Annual rate of outpatient department visits by patient age and sex: United States, 2003

by 32 percent), young adults 22–49 years (up by 34 percent), and children 1–12 years (up by 71 percent) (figure 2).

White persons made 72.9 percent of all OPD visits, and black or African American persons and Asians accounted for 22.6 and 2.9 percent, respectively. The use rate for black or African American persons (59.7 per 100 persons) was almost twice the rate for white persons (29.9 per 100 persons), and this difference persisted for age groups 15–24 years through 65–74 years. Although visit rates increased with age over 15 years among black or African American persons, there was no age effect on visit rates for white persons (figure 3). The pattern in visit rates observed by race in OPDs is reversed in physician offices where the visit rate for white persons was 43 percent higher than for black or African American persons (3).

This report also includes data on patient ethnicity (Hispanic or Latino and not Hispanic or Latino) in several tables. In the past, NHAMCS reports have omitted these data because of high item nonresponse rates. However, nonresponse has been declining during the last 10 years, and the relative proportion of the Hispanic population has been increasing (7). In 2003, Hispanic or Latino persons represented 13.8 percent of the population and made 15.7 percent of OPD visits (table 1). The rate of visits was similar to that of non-Hispanics.

Hospital characteristics

Ownership—About 77.3 percent of OPD visits were made to voluntary nonprofit hospitals, and 21.0 percent of visits occurred in non-Federal government (i.e., State, county, or city) hospitals (table 1). Proprietary hospitals were less likely to have the kinds of clinics that are eligible for NHAMCS, so OPD visits for this ownership category were too small to yield reliable estimates.

Geographic region—There were no significant differences in the visit rates among geographic regions (table 1).

Metropolitan status—About 80.8 percent of OPD visits occurred in metropolitan statistical areas (MSAs) (table 1). There was no significant difference in the visit rates for MSAs and non-MSAs.

Clinic characteristics

Clinic type—Visits to hospital OPDs were classified into the five types of clinics included in the sample (table 2). General medicine clinics included internal medicine and primary care clinics and represented 58.6 percent of all OPD visits. Pediatrics, surgery, and obstetrics and gynecology accounted for 13.8, 11.4, and 8.2 percent of visits, respectively. The ''substance abuse and other'' clinic category included drug, alcohol, and substance abuse clinics; psychiatric clinics; mental health clinics; and miscellaneous specialty clinics. They accounted for 8.0 percent of visits. The visit rate to general medicine clinics (19.4 per 100 persons) exceeded visit rates to all other types of clinics.

Visit characteristics

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 outcomes in the health status of patients. It may involve professionals from many different disciplines within multiple systems. NHAMCS collects information on the sampled patient encounter that may help understand where the encounter fits in the continuum of care for the patient. These questions include whether the OPD visit was an initial or followup visit for a problem, the number of clinic visits by established patients during the past 12 months, and whether other physicians shared care for a patient's problem.

In 2003, 36.0 percent of OPD visits were to the patient's primary care physician or provider (PCP), 54.9 percent were to a physician or provider other than the patient's PCP, and this information was unknown for 9.1 percent of visits (table 3). Although 83.3 percent of OPD visits were made by established patients (those with previous visits to the clinic), only 41.1 percent of visits by these patients were to their PCP. New patients made up 16.7 percent of OPD visits. However, 78.8 percent of visits by these patients were to a provider other than the patient's PCP.

Of the 54.9 percent of visits to non-PCPs, 36.2 percent were referrals from another physician or provider; 44.9 percent were self-referrals; and for 18.8 percent, referral status was unknown (calculated from table 3).

Referrals from another physician or provider were significantly more likely for new patients (40.9 percent) than for established patients (15.7 percent) (table 3).

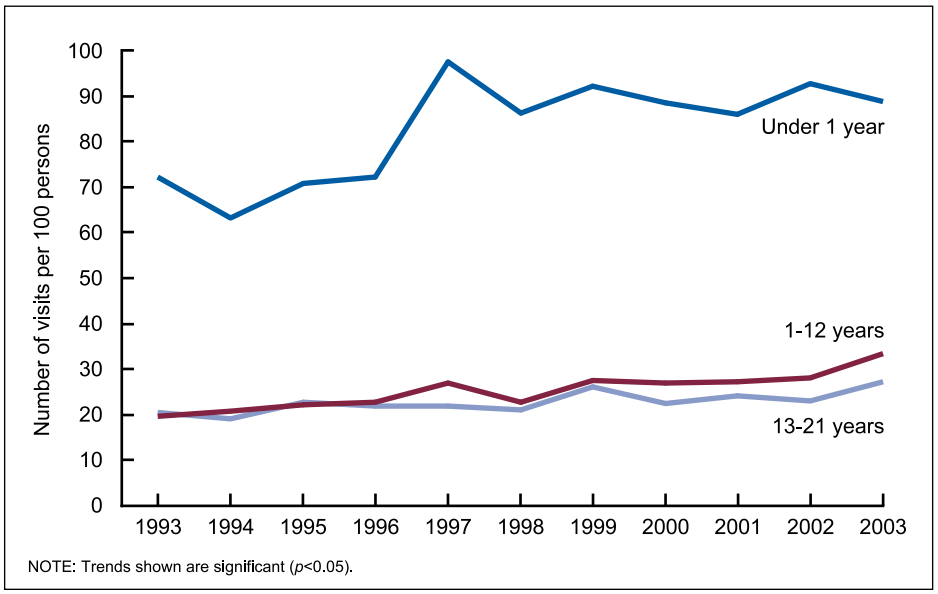
The pattern of visits to PCPs and non-PCPs also varied by the type of clinic visited. A larger proportion of visits to general medicine and pediatric clinics were to the patient's PCP compared to surgery, substance abuse, and other clinics (table 4). Referral visits to non-PCPs occurred more often in surgery clinics (49.3 percent) than in all other types of clinics (table 4). Table 5 shows that 35.0 percent of OPD visits involved shared care with other physicians.

The term ''episode of care'' as defined by NHAMCS refers to whether the sampled visit is an initial or followup visit to this provider. The major reason for the initial or followup visit could have been an acute problem with an onset of less than 3 months, a chronic problem, or a pre- or post surgery visit. In 2003, 35.2 percent of OPD visits were initial visits for a problem, 42.4 percent were followup visits for a problem, and information on the episode of care was unknown for 4.3 percent of visits (table 5).

In 2003, initial visits to general medicine and pediatric clinics (44.1 and 30.4 percent, respectively) were more frequent than to obstetrics and gynecology or ''substance abuse and other'' clinics (9.4 and 14.0 percent, respectively) (figure 4). The proportion of followup visits for a problem occurred more frequently in ''substance abuse and other'' clinics (78.9 percent) because return visits are often part of the treatment protocols of patients seen in these clinics (e.g., alcohol or drug abuse, psychiatric, mental health, and pain management clinics) (8). Preventive care visits were more likely to occur in obstetrics and gynecology clinics (69.6 percent) compared with 3.0 to 26.4 percent among the remaining clinic types.

Established patients previously seen in the clinic made up 83.3 percent of OPD visits in 2003 (calculated from table 3). Information on visits during the last 12 months was asked only for established patients. For about 77.3 percent of visits by established patients, one or more additional visits were made during the previous 12 months. At one quarter of the visits, the patient had six or more visits to the clinic during the past year. Overall, 22.7 percent of OPD visits were made by patients with no clinic visits during the past 12 months, either because the patient was new (16.7 percent) or because an established patient had no other visits within the year (6.0 percent) (table 5).

Primary expected source of payment—Private insurance was listed as the most frequent expected source of payment (occurring for 39.4 percent of OPD visits in 2003). Government sources combined (Medicare, Medicaid and SCHIP) accounted for 41.1 percent of OPD visits, most of which were Medicaid or SCHIP (table 6). Although private insurance was the most frequent source of payment for OPD visits, the visit rate for Medicaid patients (86.3 per 100 persons with Medicaid) was higher than the rates for those with Medicare (36.8 per 100 persons with Medicare), no insurance (as measured by self-pay, no charge, or charity) (26.3 per 100



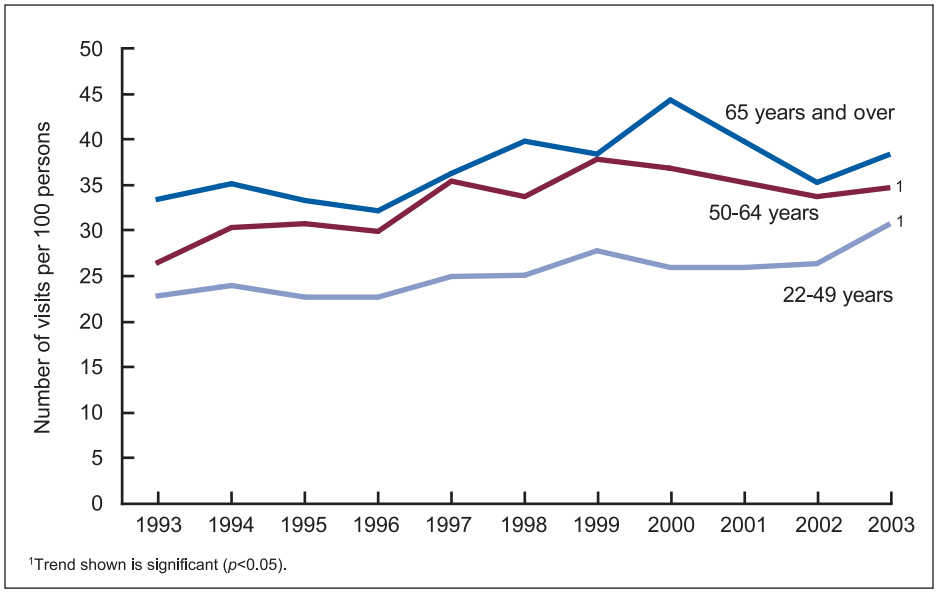


Figure 2. Trends in outpatient department visit rates by patient age: United States, 1993–2003

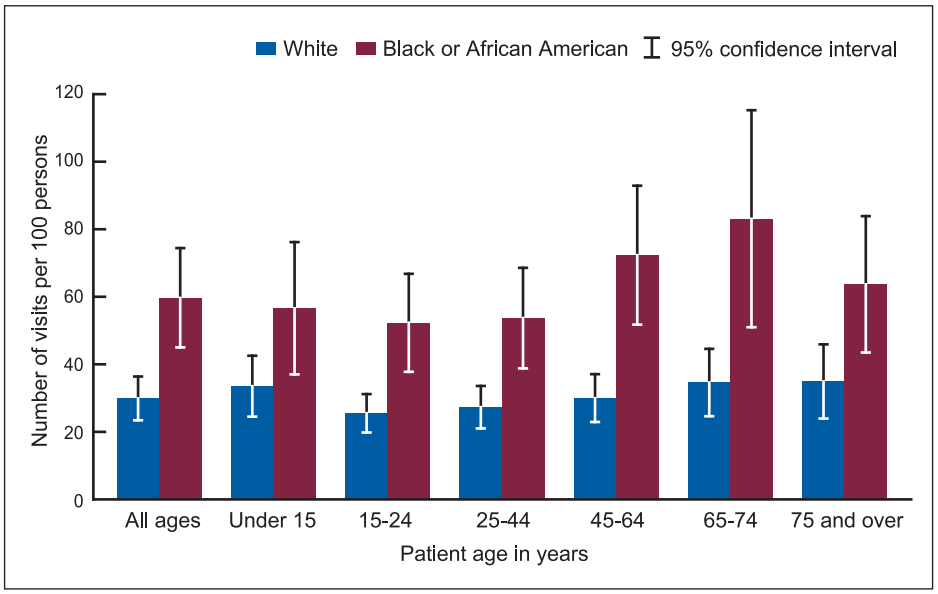


Figure 3. Annual rate of outpatient department visits by patient age and race: United States, 2003

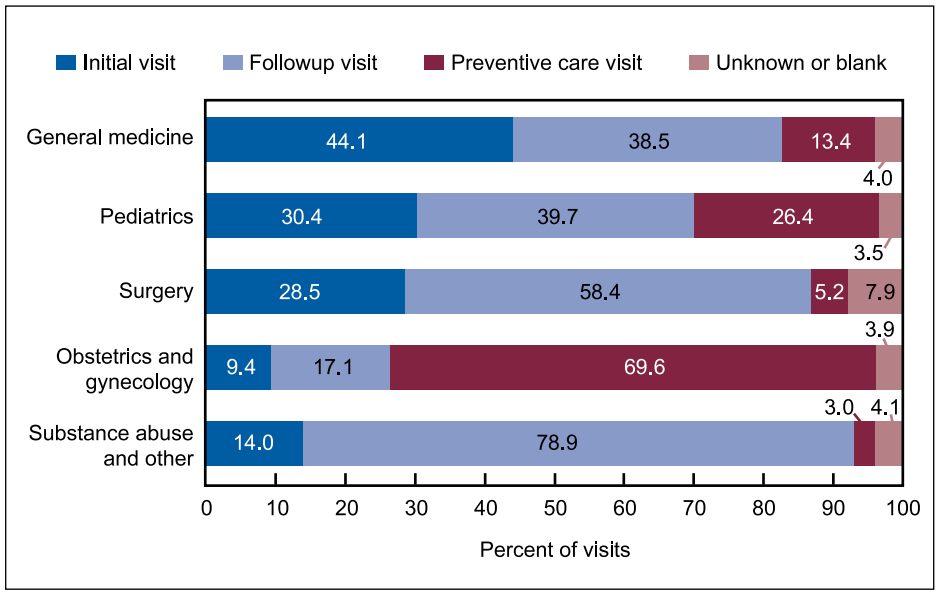


Figure 4. Percent distribution of outpatient department visits by episode of care and type of clinic: United States, 2003

persons with no insurance), and private insurance (19.3 per 100 persons with private insurance) (data not shown).

Changes in the percentage of visits with selected primary expected payment sources were examined. For this analysis, an algorithm was used to analyze this variable because of questionnaire changes for this item through the years (see the "Technical Notes" for other details on the algorithm used). Between 1993 and 2003, the use of private insurance, including health maintenance organizations (HMOs) and other types of prepaid plans, rose by 31 percent (from 30.0 to 39.4 percent in 2003) (figure 5). The use of Medicaid decreased by 24 percent between 1993 and 1999, which mirrored slow growth in Medicaid enrollment attributed to a strong economy and other factors such as increased use of managed care during the same time period (9). The increased use of Medicaid and SCHIP between 2000 and 2003 (up by 24 percent) reflected the economic downturn that made more people eligible for Medicaid, as well as program expansions through SCHIP (10). There was no change in the use of Medicare during this time period.

Patient's principal reason for visit—The principal reason for visit is the main complaint, symptom, or reason that brought the patient to the OPD. Up to three reasons for visit were coded according to *A Reason for Visit Classification for Ambulatory Care* (RVC) (11). The RVC is a classification scheme developed by NCHS that has been used for over 25 years to code patient's complaints or reasons for seeking care. It is divided into eight modules or groups of reasons as shown in table 7 and includes all of the reasons for which patients see their health care provider. These include symptoms, followup for prior diagnoses, routine examinations and screening, treatments, 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 symptom module is further divided into symptoms that refer to specific body systems, such as digestive or respiratory. Each reason is assigned a three- or four-digit classification code (for example, S845 "Symptoms of skin mole" is further detailed to S845.1 "Change in size and color" and S845.2 "Bleeding mole").

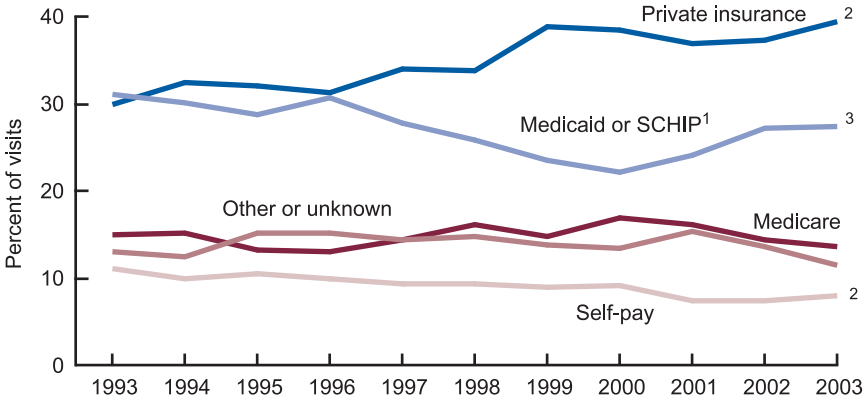
In 2003, principal reasons classified in the symptom module represented 44.7 percent of all OPD visits, with symptoms referable to the respiratory system accounting for the largest percentage of visits (10.5 percent). The diagnostic, screening, and preventive module (19.2 percent) and the treatment module (16.4 percent) were also prominent (table 7). The 20 most frequently mentioned principal reasons for visit, representing 42.3 percent of all visits, are shown in table 8. A progress visit was the most frequently mentioned principal reason for visit (6.7 percent), followed by general medical examination (5.4 percent) and routine prenatal examination (3.9 percent). The most frequently mentioned reasons related to a symptomatic problem were throat symptoms (3.0 percent) and cough (2.8 percent). Hypertension (1.3 percent)

was the most frequent reason related to a disease.

Major reason for this visit—The intent of this item was to provide a better picture of the general nature of the OPD visit—whether for an acute problem of less than a 3-month onset, routine visit for a chronic problem, flare-up of a chronic problem, pre- or postsurgery visit, or for preventive care, including routine prenatal visits, general medical examinations, well-baby visits, screening, and examinations for insurance purposes. The ''major reason for visit'' item differs from the ''principal reason for visit'' item in that the former presents the physician's rather than the patient's perspective of the major reason that the patient sought care. As seen in table 9, acute problems accounted for 40.5 percent of visits overall, but 47.4 percent among visits by children under 15 years of age. About 28.9 percent of all visits were for a routine chronic problem, but for persons 65 years of age and over, chronic problems represented approximately 44.5 percent of all visits (calculated from table 9). White persons had a higher proportion of visits for acute problems compared with black or African American persons.

Hispanic or Latino patients came to the OPD as frequently for preventive care (29.1 percent) as they did for acute (29.4 percent) or chronic problems (27.5 percent). Visits made by patients with private insurance were most frequently for acute problems (47.3 percent), and those with Medicare were most often seen for a routine chronic problem (44.8 percent). There were significantly more visits for acute problems (35.6 percent) than preventive care (25.4 percent) for patients using Medicaid.

In 2003, for one in five visits (18.0 percent), the major reason was preventive care. Females had significantly higher proportions of visits for preventive care than males (table 10). The female visit rate for preventive care was twice that for males (8.8 visits per 100 females compared with 3.0 per 100 males), largely driven by the high use rate for females 15–64 years of age. The visit rate for preventive care in OPDs by black or African-American persons (14.7 per 100 persons) was three times higher than that for white persons (4.6 per 100 persons) and two times higher than the rate for those of other races (6.2 per 100 persons). The visit rate for preventive care for Hispanic or Latino persons (11.0 per 100 persons) was twice the rate for non-Hispanic or Latino persons (5.2 per 100 persons). Private pay and Medicare patients did not use OPDs for preventive care services (2.7 and 3.0 per 100 persons, respectively) as frequently as Medicaid or SCHIP patients (21.9 per 100 persons).



[1]SCHIP is State Children's Health Insurance Program. SCHIP is included with Medicaid only in 2001-2002.
[2]Trend shown is significant (p<0.05).
[3]Trends from 1993 to 1999 and from 2000 to 2003 are significant (p<0.05).

Figure 5. Trend in expected source of payment for outpatient department visits: United States, 1993–2003

Primary diagnosis—Hospital staff 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) (12). OPD visits by primary diagnosis using the major disease categories specified by the ICD–9–CM are shown in table 11. The most frequently listed category, accounting for 19.4 percent of visits, was the supplementary classification, which is used for diagnoses not classifiable to injury or illness (e.g., general medical examination, routine prenatal examination, and health supervision of an infant or child).

Diseases of the respiratory system (11.9 percent) were also prominent on the list. The 20 most frequently reported primary diagnoses, accounting for 42.2 percent of all the OPD visits in 2003, are shown in table 12. The four most frequent diagnoses recorded were acute upper respiratory infection, excluding pharyngitis (3.8 percent); routine infant or child health check (3.4 percent); essential hypertension (3.3 percent); and malignant neoplasms (3.1 percent). The leading diagnoses by age group were as follows: infants (under 1 year of age) and children (1–12 years of age)—routine infant or child health check; adolescents through adults (females 13–49 years of age)—normal pregnancy; middle-aged persons (50–64 years of age)—essential hypertension; and seniors (65 years of age and over)—malignant neoplasms (table 13). Although normal pregnancy leads the list for both adolescents 13–21 and adults 22–49 years of age, the leading diagnoses for males in these age groups were drug dependence and non-dependent use of drugs (13–21 years of age) and general medical examination (22–49 years of age) (data not shown).

Injury-related visits—Although there is a separate item or checkbox on the PRF to indicate whether the visit was for an injury, poisoning, or adverse effects of 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 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 (12). This provides a better indicator that the visit involves an injury than using the reason-for-visit module, the ICD–9–CM injury diagnosis, or the unedited injury item alone.

There were an estimated 10.2 million injury- or poisoning-related OPD visits in 2003, representing 10.8 percent of all OPD visits and yielding a rate of 3.6 visits per 100 persons (table 14). Injury rates were statistically similar, regardless of age group or sex.

Table 15 shows OPD visits by the intent and mechanism of the first-listed external cause-of-injury codes (E-codes). 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 (12). It should be noted that there are high levels of missing data for the external cause-of-injury item (30.5 percent), so the results should be interpreted with caution. For a detailed description of the cause-of-injury codes, refer to table I in the ''Technical Notes.''

Diagnostic and screening services—Statistics on various diagnostic and screening services ordered or provided by hospital staff during an OPD visit are displayed in table 16. At least one such service was provided at 89.9 percent of OPD visits in 2003. A general medical examination was performed at a majority of visits (59.8 percent), and other examinations were performed at 18.7 percent of visits. Blood tests ranged from complete blood cell count (11.4 percent) to prostate-specific antigen (0.6 percent) tests. Cultures were taken at 5.9 percent of visits. Imaging was ordered or provided at 12.0 percent of all visits and was most often in the form of an x ray (6.5 percent). About 10.1 percent of visits had no diagnostic or screening services ordered or provided, and information was missing for 0.7 percent of visits.

This is the first year that the NHAMCS OPD component has collected the actual reading for each patient's initial vital signs (i.e., temperature and blood pressure). The patient's temperature was taken at 44.9 percent of visits and blood pressure was measured at 56.6 percent of visits (table 16). Table 17 presents the means for temperature and systolic and diastolic blood pressures along with the 25th percentile, median, and 75th percentile to indicate the range in the estimates. The mean temperature for OPD visits where temperature was taken was 98.1ºF (36.7ºC). However, when the reason for visit was fever, it was 99.5ºF (37.5ºC). For 1.1 percent of illness visits, the patient had a fever of 102ºF (38.9ºC) or higher. When the diagnosis was hypertension, the average measurements for systolic and diastolic blood pressures were 141.3 and 82.7 mmHg, respectively. Figure 6 highlights the age by sex difference in the percent of OPD visits with high blood pressure measurements, defined as systolic blood pressure ≥140 mmHg or diastolic blood pressure ≥90 mmHg, for visits by persons 15 years of age and over. High blood pressure readings were seen most frequently in persons 45–64 years of age. However, there was no significant difference by sex across all age groups. High blood pressure measurements may be the result of pain or anxiety and are not necessarily indicative of the disease of chronic high blood pressure (i.e., hypertension).

Counseling, education, and therapeutic services—One or more services were ordered or provided at 48.9 percent of OPD visits during 2003. Counseling or education related to diet or nutrition (12.2 percent), exercise (6.2 percent), and psychotherapy (3.9 percent) were mentioned most frequently (table 18). Mental health or stress management, and growth and development accounted for 3.7 and 3.1 percent of visits, respectively.

Medication therapy—Hospital staff were instructed to record all new or continued medications ordered, supplied, or administered at the visit. This included prescription and non-prescription preparations, immunizations, desensitizing agents, and anesthetics. For the first time, up to eight medications, referred to in this survey as drug mentions, were coded per visit according to a classification system developed at NCHS. A report describing the method and instruments used to collect and process drug information is available (13). As used in the NHAMCS, the term ''drug'' is

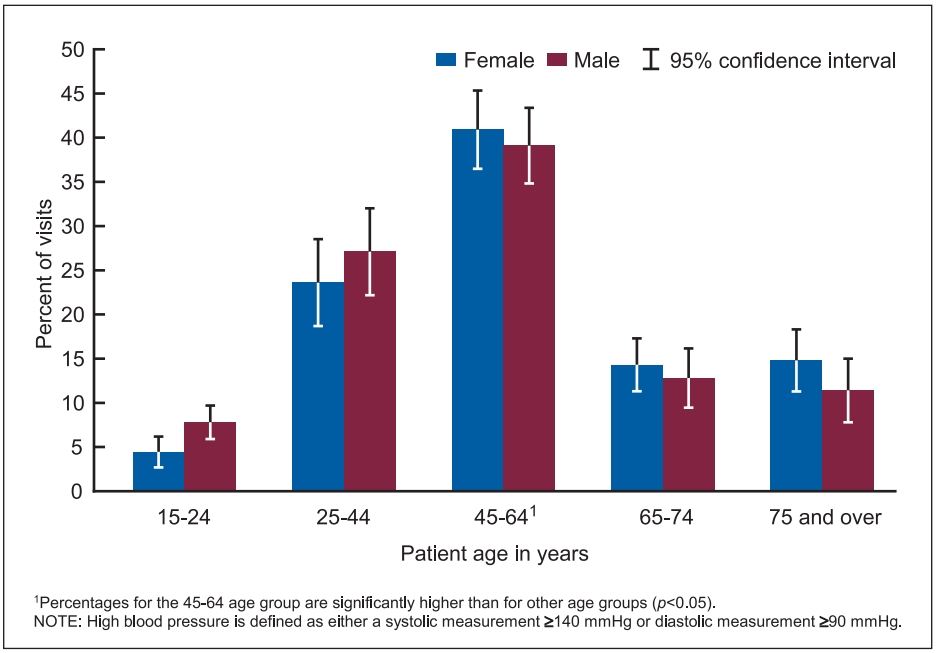


Figure 6. Percentage of outpatient department visits where patients have high blood pressure measurements, by patient age and sex: United States, 2003

interchangeable with the term ''medication.'' The term ''prescribing'' is used broadly to mean ordering or providing any medication, whether prescription or over the counter. Visits with one or more drug mentions are termed ''drug visits'' in the NHAMCS.

Medications were ordered or prescribed at 61.7 million visits or 65.2 percent of OPD visits in 2003 (table 19). About 3.8 percent of visits had as many as eight or more drugs prescribed. The percentage of visits with six or more drug mentions (7.6 percent) was not different from 2002 (7.4 percent) (7). There were a total of 166.5 million drug mentions, for an average of 176.1 drug mentions per 100 visits (table 20). Of the visits with medications, 63.2 percent had multiple drugs prescribed or continued (calculated from table 19). On average, there were 2.7 drug mentions per drug visit.

Drug mentions are shown by therapeutic subclasses in table 21. This classification is based on the four-digit therapeutic categories used in the *National Drug Code Directory*, 1995 edition (14). Drugs may have more than one therapeutic application and, in the NHAMCS, up to three therapeutic classes are recorded for each drug. Before 2002, a drug was classified under its primary therapeutic use and data were presented for two-digit therapeutic classification codes. Beginning in 2002, drug data are shown for up to three therapeutic subclassifications at the four-digit level. In 2003, the leading drug subclasses were nonsteroidal anti-inflammatory drugs (NSAIDs) (6.0 per 100 drug mentions), followed by antidepressants (4.7), nonnarcotic analgesics (4.4), antipyretics (4.2), vaccines or antisera (4.1), antiasthmatics or bronchodilators (4.0), antihistamines (4.0), and narcotic analgesics (3.5).

Vaccines were provided at 8 percent of visits by children under the age of 18 years. The most frequently provided vaccines include DTaP (18.6 percent), followed by polio (15.0 percent), Prevnar®-pneumococcal 7-valent conjugate (14.0 percent), *Haemophilus influenzae* type b (8.9 percent), hepatitis B (7.5 percent), influenza (7.0 percent), and measles, mumps, and rubella (MMR) (6.3 percent). The vaccine mention rates (mentions per 100 visits) for these vaccines, all of which are among those recommended by the Advisory Committee on Immunization Practices for this age group, are shown in figure 7. Although varicella and hepatitis A vaccines fell within the top 15 vaccine mentions for children under the age of 18 years, the estimates were unreliable and, therefore, are not presented.

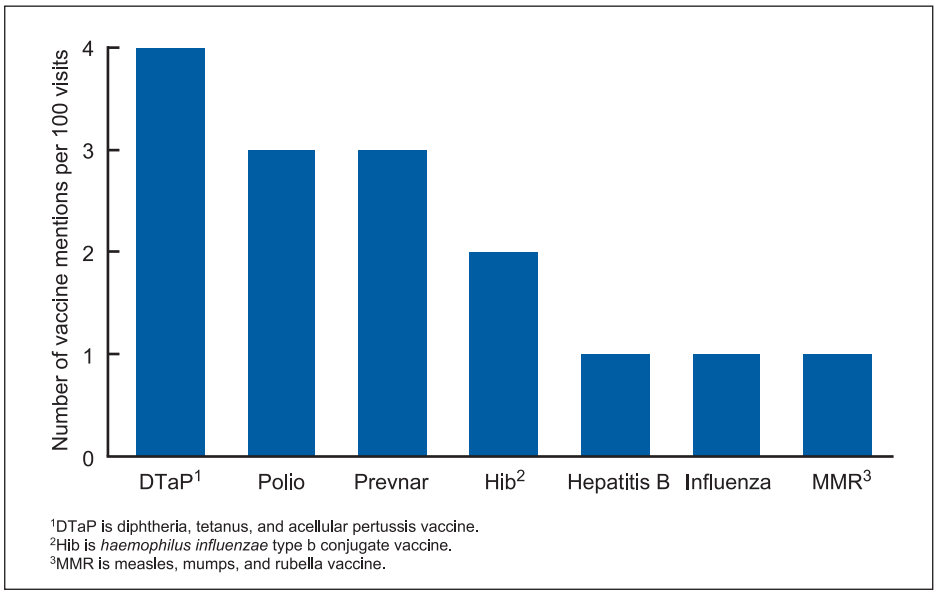


Figure 7. Vaccine mention rate for the leading vaccines provided or prescribed in the outpatient department for patients under 18 years of age: United States, 2003

The 20 most frequently used generic substances for 2003 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. The most frequently occurring generic substances in drugs mentioned at OPD visits were acetaminophen, amoxicillin, and ibuprofen.

The 20 most frequently mentioned medications are shown in table 23, according to the name written on the PRF by the hospital staff. This could be a brand name, a generic name, or therapeutic effect. Tylenol, which is classified as a nonnarcotic analgesic, was the drug most frequently mentioned, accounting for 2.2 percent of all OPD drug mentions. Albuterol, which is classified as an antiasthmatic or bronchodilator, was prescribed at 1.7 percent of mentions. Other frequent drug mentions were Lipitor (for hyperlipidemia) (1.4 percent), the antibiotic amoxicillin, and both NSAIDs—ibuprofen and Motrin (1.2 percent).

Providers seen—In this item, staff were asked to check all of the providers seen during the visit. A staff physician was seen at 78.7 percent of visits and a resident or intern was seen at 13.0 percent of OPD visits (table 22). In 2003, 14.5 percent of visits involved mid-level providers, defined as a physician assistant, nurse practitioner, or nurse midwife (figure 8). Mid-level providers are seen more frequently in OPD clinics than in physician offices (less than 3 percent) (3). OPD visits involving mid-level providers increased by 85 percent since 1993–94, from 7.8 percent of visits in 1993–94 to 14.5 percent of visits in 2003 (figure 8). Increasing use of mid-level providers may be related to the growth in supply of these providers, increased demand in hospitals due to their substitution for residents and interns in teaching hospitals, and effects of the Balanced Budget Act of 1997 that standardized reimbursement of these providers (15,16). In 2003, 1.9 percent of OPD

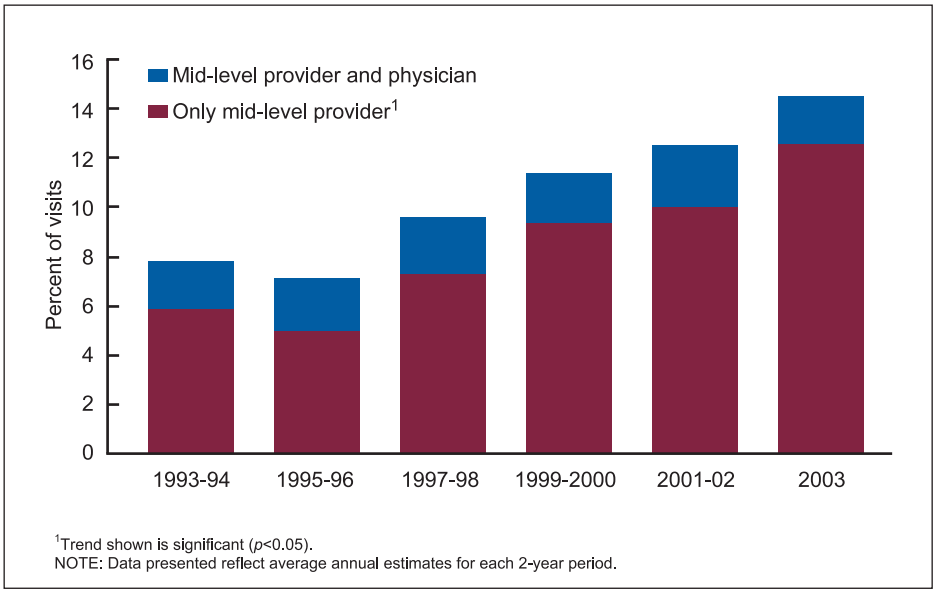


Figure 8. Trends in outpatient department visits where a mid-level provider was seen with or without a physician present: United States, 1993–2003

visits involved mid-level providers with a physician present; this percentage has not changed since 1993–94. The proportion of visits involving only mid-level providers, however, increased from 5.9 percent of visits in 1993–94 to 12.6 percent of visits in 2003 (figure 8). A registered nurse, licensed practical nurse, and medical or nursing assistant were seen at 41.2, 16.2, and 12.4 percent of visits, respectively (table 24). A physician was not seen at 20.2 million OPD visits (21.3 percent).

Visit disposition—Staff were asked to record all visit dispositions and were instructed that multiple responses could be coded for this item. For more than one half of OPD visits (61.4 percent), patients were told to return to the clinic by appointment. ''Return to the clinic, P.R.N. (as needed)'' and ''referred to another physician or clinic'' accounted for the disposition at 27.0 percent and 14.5 percent of visits, respectively (table 25).

Additional information about OPD use is available from the NCHS Ambulatory Health Care Web site: http://www.cdc.gov/nchs/nhamcs.htm. Individual-year reports and public-use data files are available for download from the Web site. Data from the 2003 NHAMCS will also be available on CD-ROM. These and other products can be obtained by contacting the NCHS Ambulatory Care Statistics Branch at (301) 458–4600. Queries regarding NHAMCS data may be sent to NCHS via nchsquery@cdc.gov.

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Table 1. Number, percent distribution, and annual rate of outpatient department visits with corresponding standard errors by selected patient and hospital characteristics: United States, 2003

Patient and hospital characteristics	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent	Number of visits per 100 persons per year[1,2]	Standard error of rate
All visits	94,578	9,250	100.0	. . .	33.1	3.2
Patient characteristics						
Age:						
Under 15 years	21,822	2,833	23.1	2.0	36.0	4.7
15–24 years	11,521	1,193	12.2	0.8	28.7	3.0
25–44 years	24,784	2,640	26.2	1.0	30.1	3.2
45–64 years	23,307	2,525	24.6	1.1	34.2	3.7
65–74 years	7,077	957	7.5	0.6	39.1	5.3
75 years and over	6,067	889	6.4	0.6	37.5	5.5
Sex and age:						
Female	57,781	5,717	61.1	1.0	39.6	3.9
Under 15 years	10,521	1,398	11.1	1.0	35.5	4.7
15–24 years	8,048	892	8.5	0.6	40.5	4.5
25–44 years	16,676	1,796	17.6	0.9	40.0	4.3
45–64 years	14,533	1,677	15.4	0.9	41.4	4.8
65–74 years	4,320	620	4.6	0.4	43.8	6.3
75 years and over	3,682	511	3.9	0.4	37.1	5.1
Male	36,796	3,723	38.9	1.0	26.4	2.7
Under 15 years	11,301	1,475	11.9	1.1	36.4	4.8
15–24 years	3,473	398	3.7	0.3	17.2	2.0
25–44 years	8,107	996	8.6	0.6	20.0	2.5
45–64 years	8,774	931	9.3	0.4	26.5	2.8
65–74 years	2,757	394	2.9	0.3	33.5	4.8
75 years and over	2,384	432	2.5	0.3	38.0	6.9
Race and age[3]:						
White	68,938	7,574	72.9	2.5	29.9	3.3
Under 15 years	15,518	2,150	16.4	1.5	33.5	4.6
15–24 years	7,971	911	8.4	0.6	25.5	2.9
25–44 years	17,907	2,131	18.9	1.0	27.3	3.2
45–64 years	17,099	2,042	18.1	1.0	30.0	3.6
65–74 years	5,408	795	5.7	0.5	34.6	5.1
75 years and over	5,034	807	5.3	0.6	34.9	5.6
Black or African American	21,342	2,666	22.6	2.3	59.7	7.5
Under 15 years	5,345	941	5.7	0.9	56.6	10.0
15–24 years	3,030	431	3.2	0.4	52.3	7.4
25–44 years	5,547	788	5.9	0.7	53.7	7.6
45–64 years	5,285	769	5.6	0.7	72.3	10.5
65–74 years	1,372	270	1.5	0.3	83.1	16.4
75 years and over	763	123	0.8	0.1	63.7	10.3
Asian	2,756	479	2.9	0.4	23.3	4.0
Native Hawaiian or other Pacific Islander	319	75	0.3	0.1	65.5	15.4
American Indian or Alaska Native	*389	136	*0.4	0.1	*14.3	5.0
Multiple race	*833	482	*0.9	0.5	*19.6	11.3
Ethnicity[3]:						
Hispanic or Latino	14,841	2,205	15.7	2.1	37.7	5.6
Not Hispanic or Latino	79,737	8,375	84.3	2.1	32.4	3.4

See footnotes at end of table.

Table 1. Number, percent distribution, and annual rate of outpatient department visits with corresponding standard errors by selected patient and hospital characteristics: United States, 2003—Con.

Patient and hospital characteristics	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent	Number of visits per 100 persons per year[1,2]	Standard error of rate
Hospital characteristics						
Ownership:						
Voluntary	73,150	8,366	77.3	3.8	25.6	2.9
Government	19,871	3,941	21.0	3.8	7.0	1.4
Proprietary	*1,557	692	*1.6	0.7	*0.5	0.2
Geographic region:						
Northeast	26,167	4,186	27.7	4.0	48.8	7.8
Midwest	25,402	4,214	26.9	4.0	39.5	6.5
South	31,885	6,095	33.7	4.9	31.2	6.0
West	*11,123	3,647	*11.8	3.6	*17.0	5.6
Metropolitan status:						
MSA[4]	76,418	8,010	80.8	5.0	32.1	3.4
Non-MSA[4]	18,159	5,418	19.2	5.0	38.5	11.5

. . . Category not applicable.

* Figure does not meet standard of reliability or precision.

[1]Visit rates for age, sex, race, ethnicity, and region are based on the July 1, 2003, set of estimates of the civilian noninstitutional population of the United States as developed by the Population Division, U.S. Census Bureau. These population estimates reflect Census 2000 data and are available from the U.S. Census Bureau. See the ''Technical Notes'' for more details.

[2]Population estimates of metropolitan statistical area (MSA) status are based on data from the 2003 National Health Interview Survey, National Center for Health Statistics, adjusted to the U.S. Census Bureau definition of core-based statistical areas as of December 2003. See www.census.gov/population/www/estimates/metrodef.html for more about MSA definitions.

[3]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 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 the ''Technical Notes'' for more details.

[4]MSA is metropolitan statistical area.

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

Table 2. Number, percent distribution, and annual rate of outpatient department visits with corrresponding standard errors, by type of clinic: United States, 2003

Type of clinic[1]	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent	Number of visits per 100 persons per year[2]	Standard error of rate
All visits	94,578	9,250	100.0	. . .	33.1	3.2
General medicine	55,453	6,672	58.6	3.3	19.4	2.3
Pediatrics	13,047	2,295	13.8	2.2	4.6	0.8
Surgery	10,746	1,678	11.4	1.4	3.8	0.6
Obstetrics and gynecology	7,773	1,165	8.2	1.0	2.7	0.4
Substance abuse and other	7,559	1,003	8.0	0.9	2.6	0.4

. . . Category not applicable.

[1]Only clinics under the supervision of a physician were included. Clinics specializing in radiology, laboratory services, physical rehabilitation, or other ancillary services were excluded.

[2]Visit rates are based on the July 1, 2003, set of estimates of the civilian noninstitutional population of the United States as developed by the Population Division, U.S. Census Bureau. These population estimates reflect Census 2000 data and are available from the U.S. Census Bureau. See the "Technical Notes" for more details.

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

Table 3. Number and percent distribution of outpatient department visits with corresponding standard errors by selected visit characteristics according to prior-visit status: United States, 2003

Primary care physician and referral status	All visits	Prior-visit status	
		Established patient	New patient
	Number of visits in thousands		
All visits	94,578	78,822	15,755
Visit to PCP[1]	34,082	32,378	1,704
Visit to non-PCP[1]	51,932	39,518	12,415
Referred by other physician	18,808	12,364	6,444
Not referred by other physician	23,343	19,828	3,515
Unknown if referred	9,781	7,325	2,456
Unknown if PCP[1] visit	8,563	6,926	1,637
	Standard error in thousands		
All visits	9,250	7,837	1,721
Visit to PCP[1]	4,667	4,488	241
Visit to non-PCP[1]	5,972	4,627	1,543
Referred by other physician	3,007	2,220	1,027
Not referred by other physician	3,079	2,598	648
Unknown if referred	1,821	1,379	498
Unknown if PCP[1] visit	1,362	1,115	310
	Percent distribution		
All visits	100.0	100.0	100.0
Visit to PCP[1]	36.0	41.1	10.8
Visit to non-PCP[1]	54.9	50.1	78.8
Referred by other physician	19.9	15.7	40.9
Not referred by other physician	24.7	25.2	22.3
Unknown if referred	10.3	9.3	15.6
Unknown if PCP[1] visit	9.1	8.8	10.4
	Standard error of percent		
All visits	. . .	. . .	. . .
Visit to PCP[1]	3.2	3.4	1.6
Visit to non-PCP[1]	3.1	3.3	2.2
Referred by other physician	2.2	2.1	4.2
Not referred by other physician	2.4	2.5	3.2
Unknown if referred	1.7	1.6	2.5
Unknown if PCP[1] visit	1.4	1.3	1.8

. . . Category not applicable.

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

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

Table 4. Percent distribution of outpatient department visits with corresponding standard errors by primary care physician and referral status, according to type of clinic: United States, 2003

Type of clinic[1]	Total	Visit to PCP[2]	Visit to non-PCP[2,3]			Unknown if PCP[2] visit
			Referred by other physician	Not referred by other physician	Unknown if referred	
			Percent distribution			
All visits	100.0	36.0	19.9	24.7	10.3	9.1
General medicine	100.0	44.8	14.7	19.7	10.6	10.2
Surgery	100.0	4.2	49.3	29.0	8.6	*8.9
Pediatrics	100.0	44.8	16.9	21.8	*10.8	5.7
Obstetrics and gynecology	100.0	32.1	15.5	32.5	9.6	10.3
Substance abuse and other	100.0	*5.8	25.8	52.3	10.6	*5.4
			Standard error of percent			
All visits	...	3.2	2.2	2.4	1.7	1.4
General medicine	...	5.1	3.0	3.3	2.7	1.8
Surgery	...	1.2	4.5	3.4	1.6	3.6
Pediatrics	...	6.1	2.6	4.6	3.6	1.6
Obstetrics and gynecology	...	5.4	3.7	5.0	1.9	2.5
Substance abuse and other	...	2.5	3.3	4.5	2.1	2.0

... Category not applicable.
* Figure does not meet standard of reliability or precision.
[1]Only clinics under the supervision of a physician were included. Clinics specializing in radiology, laboratory services, physical rehabilitation, or other ancillary services were excluded.
[2]PCP is patient's primary care physician or provider.
[3]Referral status was only asked for visits to nonprimary care physicians or providers.

Table 5. Number and percent distribution of outpatient department visits with corrresponding standard errors by selected continuity of care visit characteristics: United States, 2003

Continuity of care visit characteristics	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits	94,578	9,250	100.0	...
Prior-visit status and number of visits during last 12 months				
Established patient	78,822	7,837	83.3	1.0
None	5,702	1,049	6.0	0.8
1–2 visits	26,825	3,096	28.4	1.2
3–5 visits	22,416	2,239	23.7	1.0
6 visits or more	23,879	2,620	25.2	1.7
New patient	15,755	1,721	16.7	1.0
Do other physicians share care for this problem?				
Yes	33,123	4,485	35.0	3.1
No	41,486	4,980	43.9	3.1
Unknown or blank	19,969	3,054	21.1	2.6
Episode of care				
Initial visit for problem	33,289	4,102	35.2	2.2
Followup visit for problem	40,128	4,109	42.4	2.0
Unknown or blank	4,109	549	4.3	0.4
Not applicable (preventive care visit)[1]	17,053	2,057	18.0	1.3

... Category not applicable.
[1]Preventive care includes routine prenatal, general medical, well-baby, screening, and insurance examinations.

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

Table 6. Number and percent distribution of outpatient department visits with corresponding standard errors by primary expected source of payment: United States, 2003

Primary expected source of payment	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits	94,578	9,250	100.0	. . .
Private insurance	37,219	4,832	39.4	2.3
Medicaid or SCHIP[1]	25,950	2,768	27.4	2.1
Medicare	12,964	1,669	13.7	1.0
Self-pay	7,541	1,469	8.0	1.4
No charge	*3,333	1,112	*3.5	1.2
Worker's compensation	639	136	0.7	0.1
Other	3,193	677	3.4	0.6
Unknown or blank	3,738	674	4.0	0.7

. . . Category not applicable.
* Figure does not meet standard of reliability or precision.
[1]SCHIP is State Children's Health Insurance Program.

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

Table 7. Number and percent distribution of outpatient department visits with corresponding standard errors by patient's principal reason for visit module: United States, 2003

Principal reason for visit module and RVC code[1]		Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits		94,578	9,250	100.0	. . .
Symptom module	S001–S999	42,278	4,826	44.7	1.9
General symptoms	S001–S099	4,694	540	5.0	0.3
Symptoms referable to psychological and mental disorders	S100–S199	2,845	475	3.0	0.4
Symptoms referable to the nervous system (excluding sense organs)	S200–S259	2,989	534	3.2	0.5
Symptoms referable to the cardiovascular and lymphatic system	S260–S299	413	124	0.4	0.1
Symptoms referable to the eyes and ears	S300–S399	3,612	572	3.8	0.4
Symptoms referable to the respiratory system	S400–S499	9,968	1,621	10.5	1.2
Symptoms referable to the digestive system	S500–S639	3,945	526	4.2	0.3
Symptoms referable to the genitourinary system	S640–S829	3,179	433	3.4	0.3
Symptoms referable to the skin, hair, and nails	S830–S899	2,834	360	3.0	0.3
Symptoms referable to the musculoskeletal system	S900–S999	7,799	1,017	8.2	0.7
Disease module	D001–D999	10,679	1,235	11.3	0.8
Diagnostic, screening, and preventive module	X100–X599	18,197	2,224	19.2	1.3
Treatment module	T100–T899	15,499	1,603	16.4	1.3
Injuries and adverse effects module	J001–J999	3,460	477	3.7	0.4
Test results module	R100–R700	2,229	405	2.4	0.3
Administrative module	A100–A140	1,038	248	1.1	0.2
Other[2]	U990–U999	1,198	225	1.3	0.2

. . .Category not applicable.
[1]Based on *A Reason for Visit Classification for Ambulatory Care* (RVC) (11).
[2]Includes problems and complaints not elsewhere classified, entries of "none," blanks, and illegible entries.

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

Table 8. Number and percent distribution of outpatient department visits with corresponding standard errors by the 20 principal reasons for visit most frequently mentioned by patients: United States, 2003

Principal reason for visit and RVC code[1]		Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits		94,578	9,250	100.0	. . .
Progress visit, not otherwise specified	T800	6,321	1,030	6.7	1.0
General medical examination	X100	5,077	767	5.4	0.6
Prenatal examination, routine	X205	3,727	707	3.9	0.7
Symptoms referable to throat	S455	2,864	585	3.0	0.5
Cough	S440	2,601	468	2.8	0.4
Medication, other and unspecified kinds	T115	1,647	251	1.7	0.2
Postoperative visit	T205	1,516	297	1.6	0.3
Earache, or ear infection	S355	1,479	321	1.6	0.3
Counseling, not otherwise specified	T605	1,473	231	1.6	0.2
Stomach pain, cramps, and spasms	S545	1,445	221	1.5	0.2
Fever	S010	1,394	236	1.5	0.2
Well-baby examination	X105	1,324	211	1.4	0.2
Gynecological examination	X225	1,269	234	1.3	0.2
Headache, pain in head	S210	1,253	222	1.3	0.2
Hypertension	D510	1,240	250	1.3	0.2
Diabetes mellitus	D205	1,139	195	1.2	0.2
Back symptoms	S905	1,102	175	1.2	0.2
Skin rash	S860	1,074	161	1.1	0.1
Nasal congestion	S400	1,029	207	1.1	0.2
Low back symptoms	S910	1,013	178	1.1	0.2
All other reasons		54,591	5,553	57.7	1.3

. . . Category not applicable.
[1]Based on *A Reason for Visit Classification for Ambulatory Care* (RVC) (11).

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

Table 9. Number and percent distribution of outpatient department visits with corresponding standard errors by major reason for visit, according to selected patient and visit characteristics: United States, 2003

Patient and visit characteristics	Total	Acute problem	Chronic problem, routine	Chronic problem, flare-up	Pre- or post-surgery or injury followup	Preventive care[1]	Unknown or blank
				Number of visits in thousands			
All visits	94,578	38,339	27,355	6,135	3,974	17,053	1,721
Age							
Under 15 years	21,822	10,354	4,762	*1,273	*581	4,423	427
15–24 years	11,521	4,847	2,007	436	280	3,783	168
25–44 years	24,784	10,812	5,839	1,332	1,003	5,449	348
45–64 years	23,307	8,123	8,894	2,053	1,394	2,388	454
65–74 years	7,077	2,070	3,236	588	412	598	*173
75 years and over	6,067	2,133	2,616	452	303	412	*150
Sex							
Female	57,781	22,601	15,664	3,365	2,326	12,826	998
Male	36,796	15,738	11,691	2,770	1,648	4,227	723
Race[2]							
White	68,938	29,573	20,001	4,475	2,906	10,586	1,398
Black or African American	21,342	7,340	6,325	1,234	899	5,269	274
Other	4,298	1,426	1,029	*426	*169	1,198	*
Ethnicity[2]							
Hispanic or Latino	14,841	4,361	4,085	1,051	680	4,324	341
Not Hispanic or Latino	79,737	33,978	23,270	5,084	3,295	12,729	1,380
Primary expected source of payment							
Private insurance	37,219	17,622	9,426	2,708	1,698	5,129	636
Medicaid or SCHIP[3]	25,950	9,234	7,139	1,585	993	6,600	398
Medicare	12,964	4,111	5,805	1,045	639	1,069	*295
Self-pay, charity, or no charge	10,874	4,892	2,592	407	329	2,467	*187
Other[4]	7,570	2,480	2,392	390	316	1,787	204
				Standard error in thousands			
All visits	9,250	4,680	2,728	847	680	2,057	366
Age							
Under 15 years	2,833	1,526	1,163	390	212	620	119
15–24 years	1,193	747	267	91	63	482	41
25–44 years	2,640	1,413	673	218	211	823	77
45–64 years	2,525	1,033	883	311	296	415	129
65–74 years	957	365	415	117	95	119	75
75 years and over	889	357	412	103	62	107	66
Sex							
Female	5,717	2,698	1,564	444	435	1,616	218
Male	3,723	2,039	1,257	440	273	565	168
Race[2]							
White	7,574	4,115	2,234	662	581	1,407	311
Black or African American	2,666	1,092	852	202	172	794	66
Other	870	293	213	153	61	256	. . .
Ethnicity[2]							
Hispanic or Latino	2,205	725	647	251	182	814	92
Not Hispanic or Latino	8,375	4,406	2,479	725	604	1,669	319
Primary expected source of payment							
Private insurance	4,832	2,704	1,243	517	415	875	159
Medicaid or SCHIP[3]	2,768	1,072	993	260	214	896	96
Medicare	1,669	618	805	181	119	183	123
Self-pay, charity, or no charge	1,893	862	539	91	95	654	58
Other[4]	1,093	423	492	74	72	461	54

See footnotes at end of table.

Table 9. Number and percent distribution of outpatient department visits with corresponding standard errors by major reason for visit, according to selected patient and visit characteristics: United States, 2003—Con.

Patient and visit characteristics	Total	Acute problem	Chronic problem, routine	Chronic problem, flare-up	Pre- or post-surgery or injury followup	Preventive care[1]	Unknown or blank
				Percent distribution			
All visits	100.0	40.5	28.9	6.5	4.2	18.0	1.8
Age							
Under 15 years	100.0	47.4	21.8	*5.8	*2.7	20.3	2.0
15–24 years	100.0	42.1	17.4	3.8	2.4	32.8	1.5
25–44 years	100.0	43.6	23.6	5.4	4.0	22.0	1.4
45–64 years	100.0	34.9	38.2	8.8	6.0	10.2	1.9
65–74 years	100.0	29.2	45.7	8.3	5.8	8.4	*2.5
75 years and over	100.0	35.2	43.1	7.5	5.0	6.8	*2.5
Sex							
Female	100.0	39.1	27.1	5.8	4.0	22.2	1.7
Male	100.0	42.8	31.8	7.5	4.5	11.5	2.0
Race[2]							
White	100.0	42.9	29.0	6.5	4.2	15.4	2.0
Black or African American	100.0	34.4	29.6	5.8	4.2	24.7	1.3
Other	100.0	33.2	23.9	*9.9	*3.9	27.9	*
Ethnicity[2]							
Hispanic or Latino	100.0	29.4	27.5	7.1	4.6	29.1	2.3
Not Hispanic or Latino	100.0	42.6	29.2	6.4	4.1	16.0	1.7
Primary expected source of payment							
Private insurance	100.0	47.3	25.3	7.3	4.6	13.8	1.7
Medicaid or SCHIP[3]	100.0	35.6	27.5	6.1	3.8	25.4	1.5
Medicare	100.0	31.7	44.8	8.1	4.9	8.2	*2.3
Self-pay, charity, or no charge	100.0	45.0	23.8	3.7	3.0	22.7	1.7
Other[4]	100.0	32.8	31.6	5.2	4.2	23.6	2.7
				Standard error of percent			
All visits	. . .	2.4	1.8	0.6	0.5	1.3	0.4
Age							
Under 15 years	. . .	4.5	3.9	1.4	0.8	2.2	0.5
15–24 years	. . .	3.6	2.2	0.7	0.5	2.7	0.4
25–44 years	. . .	2.8	1.9	0.7	0.7	2.1	0.3
45–64 years	. . .	2.0	2.3	0.8	0.9	1.0	0.5
65–74 years	. . .	2.3	2.7	1.2	1.0	1.2	1.0
75 years and over	. . .	2.7	2.9	1.3	0.8	1.4	1.0
Sex							
Female	. . .	2.2	1.5	0.5	0.5	1.6	0.4
Male	. . .	2.7	2.3	0.8	0.6	1.0	0.4
Race[2]							
White	. . .	2.8	2.0	0.6	0.6	1.3	0.4
Black or African American	. . .	2.2	2.3	0.7	0.7	1.6	0.3
Other	. . .	3.1	2.0	2.1	0.8	3.0	. . .
Ethnicity[2]							
Hispanic or Latino	. . .	2.2	2.3	1.1	0.9	3.4	0.5
Not Hispanic or Latino	. . .	2.5	1.9	0.6	0.6	1.2	0.4
Primary expected source of payment							
Private insurance	. . .	3.2	2.3	1.0	0.8	1.3	0.4
Medicaid or SCHIP[3]	. . .	2.4	2.4	0.7	0.6	1.9	0.4
Medicare	. . .	2.2	2.3	1.0	0.7	1.0	0.9
Self-pay, charity, or no charge	. . .	4.1	2.4	0.7	0.8	3.3	0.5
Other[4]	. . .	3.7	4.4	0.7	0.9	4.5	0.7

. . . Category not applicable. * Figure does not meet standard of reliability or precision.

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

[2]Other race includes Asian, Native Hawaiian or other Pacific Islander, American Indian or Alaska Native, and multiple races. All race categories 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 percentage of visit records with multiple races indicated is smaller and lower than what is typically found for self-reported race.) See the ''Technical Notes'' for more details.

[3]SCHIP is State Children's Health Insurance Program.

[4]Other includes worker's compensation, unknown or blank, and sources not classified elsewhere.

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

Table 10. Number, percent distribution, and annual rate of preventive care outpatient department visits with corresponding standard errors, by selected patient and visit characteristics: United States, 2003

Patient and visit characteristics	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent	Number of visits per 100 persons per year[1]	Standard error of rate
All preventive care visits[2]	17,053	2,057	100.0	. . .	6.0	0.7
Age						
Under 15 years	4,423	620	25.9	2.3	7.3	1.0
15–24 years	3,783	482	22.2	1.7	9.4	1.2
25–44 years	5,449	823	32.0	2.2	6.6	1.0
45–64 years	2,388	415	14.0	1.6	3.5	0.6
65 years and over	1,009	191	5.9	0.8	2.9	0.6
Sex and age						
Female	12,826	1,616	75.2	1.8	8.8	1.1
Under 15 years	2,274	344	13.3	1.4	7.7	1.2
15–24 years	3,425	457	20.1	1.6	17.2	2.3
25–44 years	4,668	735	27.4	2.3	11.2	1.8
45–64 years	1,735	317	10.2	1.2	4.9	0.9
65 years and over	723	147	4.2	0.7	3.7	0.7
Male	4,227	565	24.8	1.8	3.0	0.4
Under 15 years	2,149	305	12.6	1.2	6.9	1.0
15–24 years	358	94	2.1	0.5	1.8	0.5
25–44 years	780	192	4.6	0.9	1.9	0.5
45–64 years	653	149	3.8	0.8	2.0	0.5
65 years and over	286	66	1.7	0.3	2.0	0.5
Race[3]						
White	10,586	1,407	62.1	3.2	4.6	0.6
Black or African American	5,269	794	30.9	3.1	14.7	2.2
Other	1,198	256	7.0	1.2	6.2	1.3
Ethnicity[3]						
Hispanic or Latino	4,324	814	25.4	3.7	11.0	2.1
Not Hispanic or Latino	12,729	1,669	74.6	3.7	5.2	0.7
Primary expected source of payment						
Medicaid or SCHIP[4]	6,600	896	38.7	3.4	21.9	3.0
Private insurance	5,129	875	30.1	3.3	2.7	0.5
Self-pay, charity, or no charge	2,467	654	14.5	3.2	6.0	1.6
Medicare	1,069	183	6.3	0.8	3.0	0.5
Other[5]	1,787	461	10.5	2.4	. . .	. . .

. . . Category not applicable.

* Figure does not meet standard of reliability or precision.

[1]Visit rates for age, sex, race, and ethnicity are based on the July 1, 2003, set of estimates of the civilian noninstitutional population of the United States as developed by the Population Division, U.S. Census Bureau. These population estimates reflect Census 2000 data and are available from the U.S. Census Bureau. See the ''Technical Notes'' for more details. Visit rates by expected source of payment are based on the 2003 National Health Interview Survey estimates of health insurance.

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

[3]Other race includes Asian, Native Hawaiian or other Pacific Islander, American Indian or Alaska Native, and multiple races. All race categories 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 percentage of visit records with multiple races indicated is smaller and lower than what is typically found for self-reported race. See the ''Technical Notes'' for more details.

[4]SCHIP is State Children's Health Insurance Program.

[5]Other includes worker's compensation, unknown or blank, and sources not classified elsewhere.

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

Table 11. Number and percent distribution of outpatient department visits with corresponding standard errors by primary diagnosis: United States, 2003

Major disease category and ICD–9–CM code range[1]	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits	94,578	9,250	100.0	. . .
Infectious and parasitic diseases 001–139	3,403	532	3.6	0.4
Neoplasms 140–239	4,170	770	4.4	0.7
Endocrine, nutritional, metabolic diseases, and immunity disorders 240–279	4,671	580	4.9	0.4
Mental disorders 290–319	6,342	881	6.7	0.9
Diseases of the nervous system and sense organs 320–389	6,847	1,021	7.2	0.7
Diseases of the circulatory system 390–459	5,843	799	6.2	0.5
Diseases of the respiratory system 460–519	11,216	1,751	11.9	1.3
Diseases of the digestive system 520–579	2,756	383	2.9	0.3
Diseases of the genitourinary system 580–629	4,218	660	4.5	0.4
Diseases of the skin and subcutaneous tissue 680–709	3,169	385	3.4	0.3
Diseases of the musculoskeletal system and connective tissue 710–739	6,109	908	6.5	0.7
Symptoms, signs, and ill-defined conditions 780–799	5,680	690	6.0	0.4
Injury and poisoning 800–999	5,485	772	5.8	0.6
Supplementary classification V01–V82	18,357	1,973	19.4	1.1
All other diagnoses[2]	4,657	790	4.9	0.7
Unknown[3]	1,656	265	1.8	0.3

. . . Category not applicable.

[1]Based on the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD–9–CM) (12).

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

[3]Includes blanks, uncodable diagnoses, and illegible diagnoses.

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

Table 12. Number and percent distribution of outpatient department visits with corresponding standard errors by primary diagnosis group: United States, 2003

Primary diagnosis group and ICD–9–CM code(s)[1]	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits	94,578	9,250	100.0	. . .
Acute upper respiratory infection, excluding pharyngitis 460–461, 463–466	3,631	682	3.8	0.5
Routine infant or child health check V20.2	3,187	452	3.4	0.4
Essential hypertension 401	3,085	451	3.3	0.4
Malignant neoplasms 140–208, 230–234	2,977	625	3.1	0.6
Normal pregnancy V22	2,678	349	2.8	0.3
Diabetes mellitus 250	2,585	341	2.7	0.3
Otitis media and eustachian tube disorders 381–382	2,222	422	2.3	0.3
Spinal disorders 720–724	2,099	358	2.2	0.3
Arthropathies and related disorders 710–719	2,057	363	2.2	0.3
General medical examination V70	1,840	406	1.9	0.4
Acute pharyngitis 462	1,602	377	1.7	0.3
Chronic sinusitis 473	1,582	346	1.7	0.3
Asthma 493	1,512	300	1.6	0.3
Followup examination V67	1,374	263	1.5	0.3
Psychoses, excluding major depressive disorder 290–295, 296.0–296.1, 296.4–299	1,324	273	1.4	0.3
Specific procedures and after care V50–V59.9	1,321	278	1.4	0.2
Rheumatisms, excluding back 725–729	1,267	232	1.3	0.2
Complications of pregnancy, childbirth, and the puerperium 630–677	*1,204	431	*1.3	0.4
Benign neoplasms 210–229, 235–239	1,193	283	1.3	0.3
Gynecological examination V72.3	1,166	201	1.2	0.2
All other diagnoses	54,671	5,607	57.8	1.3

. . . Category not applicable.

* Figure does not meet standard of reliability or precision.

[1]Based on the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD–9–CM) (12). However, certain codes have been combined in this table to better describe the use of ambulatory care services.

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

Table 13. Number and percent distribution of outpatient department visits with corresponding standard errors by patient's age and primary diagnosis group: United States, 2003

Patient's age, primary diagnosis group, and ICD–9–CM code(s)[1]	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent	Number of visits per 100 persons per year[2]	Standard error of rate
All visits	94,578	9,250	100.0	. . .	33.1	3.2
Under 1 year						
All visits	3,548	455	100.0	. . .	88.7	11.4
Routine infant or child health check V20.2	1,227	188	34.6	3.5	30.7	4.7
Acute upper respiratory infection, excluding pharyngitis 460–461, 463–466	293	57	8.3	1.4	7.3	1.4
Congenital anomalies 740–759	*255	119	7.2	3.1	6.4	3.0
Otitis media and eustachian tube disorders 381–382	225	60	6.3	1.5	5.6	1.5
Certain conditions originating in the perinatal period 760–779	113	28	3.2	0.7	2.8	0.7
All other diagnoses	1,435	222	40.5	3.5	35.9	5.6
1–12 years						
All visits	16,105	2,174	100.0	. . .	33.4	4.5
Routine infant or child health check V20.2	1,591	254	9.9	1.4	3.3	0.5
Otitis media and eustachian tube disorders 381–382	1,492	288	9.3	1.3	3.1	0.6
Acute upper respiratory infection, excluding pharyngitis 460–461, 463–466	1,413	280	8.8	1.3	2.9	0.6
Acute pharyngitis 462	*629	204	3.9	1.1	1.3	0.4
Asthma 493	534	149	3.3	0.8	1.1	0.3
All other diagnoses	10,446	1,529	64.9	3.0	21.7	3.2
13–21 years						
All visits	9,972	1,055	100.0	. . .	27.2	2.9
Normal pregnancy[3] V22	804	124	8.1	1.3	4.5	0.7
Routine infant or child health check V20.2	370	79	3.7	0.7	1.0	0.2
Acute upper respiratory infection, excluding pharyngitis 460–461, 463–466	353	96	3.5	0.9	1.0	0.3
Acute pharyngitis 462	*321	113	*3.2	1.1	0.9	0.3
General medical examination V70	304	69	3.0	0.6	0.8	0.2
All other diagnoses	7,821	902	78.4	2.3	21.3	2.5
22–49 years						
All visits	35,615	3,677	100.0	. . .	30.8	3.2
Normal pregnancy[4] V22	1,874	252	5.3	0.6	3.2	0.4
Acute upper respiratory infection, excluding pharyngitis 460–461, 463–466	1,080	267	3.0	0.6	0.9	0.2
General medical examination V70	1,020	278	2.9	0.7	0.9	0.2
Complications of pregnancy, childbirth, and the puerperium[4] 630–677	*973	379	*2.7	1.0	1.7	0.6
Spinal disorders 720–724	962	149	2.7	0.4	0.8	0.1
All other diagnoses	29,706	3,135	83.4	1.4	25.7	2.7
50–64 years						
All visits	16,194	1,804	100.0	. . .	34.7	3.9
Essential hypertension 401	1,083	191	6.7	0.9	2.3	0.4
Diabetes mellitus 250	970	140	6.0	0.8	2.1	0.3
Malignant neoplasms 140–208, 230–234	817	165	5.0	1.0	1.8	0.4
Spinal disorders 720–724	641	131	4.0	0.6	1.4	0.3
Arthropathies and related disorders 710–719	560	118	3.5	0.5	1.2	0.3
All other diagnoses	12,122	1,414	74.9	1.6	26.0	3.0
65 years and older						
All visits	13,144	1,784	100.0	. . .	38.3	5.2
Malignant neoplasms 140–208, 230–234	1,063	272	8.1	1.8	3.1	0.8
Essential hypertension 401	1,011	212	7.7	1.2	3.0	0.6
Diabetes mellitus 250	697	105	5.3	0.8	2.0	0.3
Heart disease, excluding ischemic 391–392.0, 393–398, 402, 404, 415–416, 420–429	549	160	4.2	1.0	1.6	0.5
Arthropathies and related disorders 710–719	535	114	4.1	0.6	1.6	0.3
All other diagnoses	9,288	1,311	70.7	2.0	27.1	3.8

. . . Category not applicable.

* Figure does not meet standard of reliability or precision.

[1]Based on the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD–9–CM) (12). However, certain codes have been combined in this table to describe the use of ambulatory care services.

[2]Visit rates by age are based on the July 1, 2003, set of estmates of the civilian noninstitutional population of the United States as developed by the Population Division, U.S. Census Bureau. These population estimates reflect Census 2000 data and are available from the U.S. Census Bureau. See the ''Technical Notes'' for more details.

[3]The population used for the rate is based on visits by females 13–21 years of age.

[4]The population used for the rate is based on visits by females 22–49 years of age.

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

Table 14. Number, percent distribution, and annual rate of injury-related outpatient department visits with corresponding standard errors, by patient age, sex, race, and ethnicity: United States, 2003

Patient age, sex, race, and ethnicity	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent	Number of visits per 100 persons per year[1]	Standard error of rate
All injury-related visits	10,180	1,231	100.0	. . .	3.6	0.4
Age						
Under 15 years	2,229	321	21.9	2.1	3.7	0.5
15–24 years	1,486	222	14.6	1.0	3.7	0.6
25–44 years	2,898	423	28.5	1.6	3.5	0.5
45–64 years	2,329	297	22.9	1.4	3.4	0.4
65–74 years	548	106	5.4	0.9	3.0	0.6
75 years and over	690	126	6.8	0.9	4.3	0.8
Sex and age						
Female	5,178	647	50.9	1.8	3.5	0.4
Under 15 years	967	150	18.7	2.2	3.3	0.5
15–24 years	636	100	12.3	1.1	3.2	0.5
25–44 years	1,523	230	29.4	1.9	3.7	0.6
45–64 years	1,296	178	25.0	1.9	3.7	0.5
65–74 years	355	79	6.9	1.3	3.6	0.8
75 years and over	400	98	7.7	1.4	4.0	1.0
Male	5,002	638	49.1	1.8	3.6	0.5
Under 15 years	1,262	195	25.2	2.6	4.1	0.6
15–24 years	849	143	17.0	1.4	4.2	0.7
25–44 years	1,375	228	27.5	2.1	3.4	0.6
45–64 years	1,033	142	20.6	1.9	3.1	0.4
65–74 years	193	44	3.9	0.9	2.3	0.5
75 years and over	290	69	5.8	1.1	4.6	1.1
Race[2]						
White	7,952	1,102	78.1	2.9	3.5	0.5
Black or African American	1,867	268	18.3	2.6	5.2	0.7
Other	*360	125	*3.5	1.1	*1.9	0.6
Ethnicity[2]						
Hispanic or Latino	1,185	247	11.6	2.2	3.0	0.6
Not Hispanic or Latino	8,994	1,139	88.4	2.2	3.7	0.5

. . . Category not applicable.

* Figure does not meet standard of reliability or precision.

[1]Visit rates for age, sex, race, and ethnicity are based on the July 1, 2003, set of estimates of the civilian noninstitutional population of the United States as developed by the Population Division, U.S. Census Bureau. See the ''Technical Notes'' for more detail.

[2]Other race includes Asians, Native Hawaiians or other Pacific Islanders, American Indians or Alaska Natives, and multiple races. All race categories 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 percentage of visit records with multiple races indicated is smaller and lower than what is typically found for self-reported race.) See the ''Technical Notes'' for more details.

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

Table 15. Number and percent distribution of injury-related outpatient department visits with corresponding standard errors by intent and mechanism of external cause: United States, 2003

Intent and mechanism[1]	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All injury-related visits	10,180	1,231	100.0	. . .
Unintentional injuries	6,121	828	60.1	2.2
Falls	1,374	221	13.5	1.2
Struck against or struck accidentally by objects or persons	658	117	6.5	0.8
Cutting or piercing instruments or objects	570	132	5.6	1.0
Natural and environmental factors	538	101	5.3	0.8
Overexertion and strenuous movements	521	104	5.1	0.8
Motor vehicle traffic	500	125	4.9	1.1
Other and not elsewhere classified[2]	1,252	200	12.3	1.2
Mechanism unspecified	707	182	6.9	1.6
Intentional injuries[3]	216	43	2.1	0.4
Injuries of undetermined intent	*	. . .	*	. . .
Adverse effects of medical treatment	698	165	6.9	1.4
Blank cause[4]	3,100	387	30.5	2.3

. . . Category not applicable.

* Figure does not meet standard of reliability or precision.

[1]Based on the ''Supplementary Classification of External Cause of Injury and Poisoning,'' *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD–9–CM) (12). A detailed description of the ICD–9–CM E-codes used to create the groupings in this table is provided in the ''Technical Notes.''

[2]Includes suffocation, poisoning, machinery, firearms, fire and flames, drowning or submersion, nontraffic motor vehicle, pedal cycle, and other transportation.

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

[4]Includes illegible entries and blanks.

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

Table 16. Number and percentage of outpatient department visits with corresponding standard errors by diagnostic and screening services ordered or provided: United States, 2003

Diagnostic and screening services ordered or provided	Number of visits in thousands[1]	Standard error in thousands	Percent of visits	Standard error of percent
All visits	94,578	9,250	. . .	. . .
One or more diagnostic or screening services listed	84,999	8,642	89.9	1.4
None	9,578	1,450	10.1	1.4
Blank	699	154	0.7	0.2
Examinations				
General medical examination	56,546	6,573	59.8	2.7
Other examination	17,649	2,154	18.7	1.6
Vital signs				
Temperature	42,505	5,206	44.9	3.2
Blood pressure	53,486	5,817	56.6	2.6
Diagnostic tests				
EKG[2]	3,173	699	3.4	0.6
Any scope procedure	2,405	712	2.5	0.7
Sigmoidoscopy or colonoscopy	*1,506	552	*1.6	0.6
Endoscopy	883	218	0.9	0.2
Cystoscopy	*125	56	*0.1	0.1
Laboratory tests				
CBC[3]	10,813	1,526	11.4	1.1
Other blood test	10,219	1,252	10.8	0.8
Urinalysis	8,052	996	8.5	0.7
Lipids or cholesterol	4,316	835	4.6	0.7
Glucose	3,516	499	3.7	0.4
Pap test	3,175	415	3.4	0.3
Hematocrit or hemoglobin	3,039	636	3.2	0.6
Electrolytes	2,377	374	2.5	0.3
HgbA1C[4]	2,145	391	2.3	0.3
PSA[5]	548	134	0.6	0.1
Cultures				
Any culture	5,614	856	5.9	0.6
Throat culture or rapid strep test	2,570	595	2.7	0.5
Urine	1,486	234	1.6	0.2
Cervical or urethral	1,248	227	1.3	0.2
Stool	543	146	0.6	0.1
Imaging				
Any imaging	11,312	1,752	12.0	1.2
X ray	6,170	842	6.5	0.6
Mammography	1,869	471	2.0	0.4
Other imaging	4,030	978	4.3	0.9
Other services	10,969	1,457	11.6	1.0

. . . Category not applicable.
* Figure does not meet standard of reliability or precision.
[1]Total exceeds "All visits" because more than one service may be reported per visit.
[2]EKG is electrocardiogram.
[3]CBC is complete blood cell count.
[4]HgbA1C is glycohemoglobin.
[5]PSA is prostate-specific antigen.

Table 17. Mean initial vital signs for patients seen at outpatient department visits with corresponding standard errors and percentiles by type of vital sign and patient's age: United States, 2003

Type of vital sign	Mean	Standard error	25th percentile	50th percentile	75th percentile
Temperature in Fahrenheit					
All visits	98.1	0.0	97.3	97.9	98.6
Under 5 years	98.3	0.1	97.2	98.0	98.9
5 years and over	98.0	0.0	97.3	97.9	98.6
Reason for visit of fever	99.5	0.1	98.0	99.1	100.6
Systolic blood pressure in mmHg[1]					
All visits	124.1	0.7	109.5	121.2	136.0
18–44 years	120.9	1.0	109.3	119.3	129.6
45–64 years	131.2	0.8	118.4	129.3	141.6
65 years and over	136.2	1.0	121.4	134.5	148.5
Diagnosis of hypertension	141.3	1.1	127.5	139.6	151.8
Diastolic blood pressure in mmHg[1]					
All visits	73.6	0.4	64.5	72.6	80.0
18–44 years	74.2	0.5	66.2	73.4	80.0
45–64 years	78.2	0.3	69.7	79.0	84.8
65 years and over	73.9	0.7	65.9	71.9	79.9
Diagnosis of hypertension	82.7	0.8	73.3	81.1	89.7

0.0 Quantity more than zero but less than 0.05.
[1]mmHg is millimeters of mercury.

Table 18. Number and percentage of outpatient department visits with corresponding standard errors by counseling, education, or therapeutic services ordered or provided: United States, 2003

Counseling, education, or therapeutic services ordered or provided	Number of visits in thousands[1]	Standard error in thousands	Percent of visits	Standard error of percent
All visits	94,578	9,250	. . .	. . .
One or more counseling, education, or therapeutic service listed	46,247	5,408	48.9	3.2
None	48,330	5,643	51.1	3.2
Blank	892	147	0.9	0.1
Diet or nutrition	11,536	1,670	12.2	1.3
Exercise	5,845	1,256	6.2	1.1
Psychotherapy	3,681	546	3.9	0.6
Mental health or stress management	3,527	639	3.7	0.6
Growth or development	2,961	452	3.1	0.4
Tobacco use or exposure	2,703	486	2.9	0.4
Weight reduction	1,652	314	1.7	0.3
Asthma education	1,381	280	1.5	0.3
Physiotherapy	*1,325	407	*1.4	0.4
Other	29,852	4,128	31.6	2.9

. . . Category not applicable.
* Figure does not meet standard of reliability or precision.
[1]Total exceeds "All visits" because more than one service may be reported per visit.

Table 19. Number and percent distribution of outpatient department visits with corresponding standard errors by medication therapy and number of medications provided or prescribed: United States, 2003

Medication therapy[1]	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits	94,578	9,250	100.0	. . .
Drug visits[2]	61,684	6,471	65.2	1.5
Visits without mention of medication	32,894	3,257	34.8	1.5
Number of medications provided or prescribed				
All visits	94,578	9,250	100.0	. . .
0	32,894	3,257	34.8	1.5
1	22,700	2,235	24.0	0.9
2	15,095	1,745	16.0	0.9
3	8,118	1,015	8.6	0.6
4	5,147	632	5.4	0.4
5	3,490	514	3.7	0.4
6	2,263	383	2.4	0.3
7	1,300	216	1.4	0.2
8	3,570	883	3.8	0.8

. . . Category not applicable.
[1]Includes prescription drugs, over the counter preparations, immunizations, and desensitizing agents.
[2]Visits at which one or more drugs were provided or prescribed.

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

Table 20. Number and percent distribution of drug visits and drug mentions, and percentage of drug visits and drug mention rates per 100 visits with corresponding standard errors by type of clinic: United States, 2003

	Drug visits				Drug mentions				Percent of drug visits		Drug mention rates	
Clinic type	Number in thousands[1]	Standard error in thousands	Percent distribution	Standard error of percent	Number of mentions in thousands[2]	Standard error in thousands	Percent distribution	Standard error of percent	Percent[3] of drug visits	Standard error of percent	Number of drug mentions per 100 visits[4]	Standard error of rate
All visits	61,684	6,471	100.0	. . .	166,525	20,668	100.0	. . .	65.2	1.5	176.1	9.7
General medicine	40,509	5,039	65.7	3.3	112,692	15,227	67.7	3.3	73.1	1.9	203.2	13.1
Pediatrics	8,261	1,432	13.4	2.1	18,834	3,692	11.3	2.0	63.3	3.1	144.3	14.2
Surgery	4,952	913	8.0	1.2	15,784	3,922	9.5	1.8	46.1	4.2	146.9	25.7
Obstetrics and gynecology	3,592	550	5.8	0.8	6,256	1,130	3.8	0.5	46.2	3.2	80.5	8.3
Substance abuse and other	4,369	707	7.1	1.0	12,958	2,220	7.8	1.0	57.8	4.3	171.4	17.0

. . . Category not applicable.
[1]Visits at which one or more drugs were provided or prescribed by the physician.
[2]Number of drugs mentioned at visits (up to eight per visit).
[3]Percentage of visits to the clinic that included one or more drug mentions (number of drug visits divided by number of clinic visits multiplied by 100).
[4]Average number of drugs that were mentioned per 100 visits to each clinic (number of drug mentions divided by total number of visits multiplied by 100).

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

Table 21. Number and percentage of drug mentions for the 20 most frequently occurring therapeutic drug classes at outpatient department visits with corresponding standard errors: United States, 2003

Therapeutic class	Number of occurrences in thousands[1]	Standard error in thousands	Percent of drug mentions[2]	Standard error of percent
NSAIDs[3]	9,977	1,334	6.0	0.8
Antidepressants	7,752	1,214	4.7	0.9
Nonnarcotic analgesics	7,380	1,088	4.4	0.7
Antipyretics	6,911	1,023	4.2	0.7
Vaccines or antisera	6,825	1,101	4.1	0.9
Antiasthmatics or bronchodilators	6,658	1,059	4.0	0.9
Antihistamines	6,607	889	4.0	0.5
Narcotic analgesics	5,751	872	3.5	0.6
Penicillins	5,610	1,058	3.4	0.9
Acid or peptic disorders	5,453	855	3.3	0.6
Blood glucose regulators	5,045	792	3.0	0.6
Antiarthritics	4,919	958	3.0	0.8
Vitamins or minerals	4,576	696	2.7	0.6
Hyperlipidemia	4,475	900	2.7	0.7
Anticonvulsants	4,110	677	2.5	0.6
Diuretics	3,976	663	2.4	0.5
ACE[4] inhibitors	3,942	651	2.4	0.5
Antihypertensive agents	3,787	648	2.3	0.5
Beta blockers	3,759	707	2.3	0.6
Antitussives or expectorants or mucolytics	3,622	970	2.2	0.9

[1]Based on the standard four-digit drug classification used in the *National Drug Code Directory*, 1995 edition (14).
[2]Based on an estimated 166,525,000 drug mentions at outpatient department visits in 2003. Total of all therapeutic classes will exceed total drug mentions because up to three classes may be coded for each drug.
[3]NSAIDs are nonsteroidal anti-inflammatory drugs.
[4]ACE is angiotensin-converting enzyme.

Table 22. Number and rate of generic substances for the 20 most frequently occurring generic substances in drug mentions at outpatient department visits with corresponding standard errors: United States, 2003

Generic substance	Number of occurrences in thousands[1]	Standard error in thousands	Number of generic substances per 100 drug mentions[2]	Standard error of rate
Acetaminophen	7,870	1,022	4.7	0.6
Amoxicillin	4,924	968	3.0	0.8
Ibuprofen	4,630	691	2.8	0.6
Albuterol	3,651	573	2.2	0.5
Aspirin	3,003	661	1.8	0.6
Hydrochlorothiazide	2,864	473	1.7	0.4
Fluticasone propionate	2,573	476	1.5	0.4
Hydrocodone	2,504	467	1.5	0.4
Pseudoephedrine	2,405	499	1.4	0.4
Atorvastatin calcium	2,349	532	1.4	0.4
Guaifenesin	2,287	641	1.4	0.6
Pyridoxine	1,740	298	1.0	0.3
Lisinopril	1,704	376	1.0	0.3
Ergocalciferol	1,694	289	1.0	0.3
Tetanus vaccine	1,669	249	1.0	0.2
Vitamin A	1,669	300	1.0	0.3
Metoprolol	1,657	292	1.0	0.2
Riboflavin	1,637	292	1.0	0.3
Thiamine	1,637	294	1.0	0.3
Azithromycin	1,625	321	1.0	0.3

. . . Category not applicable.
* Figure does not meet standard of reliability or precision.
[1]Frequency of mention combines single-ingredient agents with mentions of the agent as an ingredient in a combination drug.
[2]Based on an estimated 166,525,000 drug mentions at outpatient department visits in 2003.

Table 23. Number, percent distribution, and therapeutic class for the 20 drugs most frequently provided or prescribed at outpatient department visits with corresponding standard errors, by entry name of drug: United States, 2003

Entry name of drug[1]	Number of drug mentions in thousands	Standard error in thousands	Percent distribution	Standard error of percent	Therapeutic class[2]
All drug mentions	166,525	20,668	100.0	. . .	. . .
Tylenol	3,589	562	2.2	0.3	Nonnarcotic analgesics; antipyretics
Albuterol	2,874	450	1.7	0.2	Antiasthmatics, bronchodilators
Lipitor	2,334	532	1.4	0.2	Hyperlipidemia
Amoxicillin	1,958	409	1.2	0.2	Penicillins
Ibuprofen	1,947	391	1.2	0.2	NSAIDs[3]
Motrin	1,941	292	1.2	0.2	NSAIDs[3]
Aspirin	1,850	507	1.1	0.2	Nonnarcotic analgesics; antiarthritics; antipyretics
Prednisone	1,450	244	0.9	0.1	Adrenal corticosteroids
Lasix	1,420	310	0.9	0.1	Diuretics
Hydrochlorothiazide	1,419	250	0.9	0.1	Diuretics
Prenatal vitamins	1,399	264	0.8	0.2	Vitamins or minerals
Atenolol	1,392	346	0.8	0.1	Beta blockers
Amoxil	1,383	341	0.8	0.2	Penicillins
Augmentin	1,339	298	0.8	0.2	Penicillins
Celebrex	1,241	271	0.7	0.1	Antiarthritics; NSAIDs[3]
Zyrtec	1,206	228	0.7	0.1	Antihistamines
Flonase	1,119	229	0.7	0.1	Nasal corticosteroid-inhalant
Norvasc	1,094	201	0.7	0.1	Calcium channel blockers
Influenza virus vaccine	*1,093	416	*0.7	0.2	Vaccines or antisera
Zoloft	1,081	177	0.6	0.1	Antidepressants
All other mentions	133,397	16,679	80.1	0.8	. . .

. . . Category not applicable.
* Figure does not meet standard of reliability or precision.
[1]The entry made by the hospital staff on the prescription or other medical records. This may be a trade name, a generic name, or desired therapeutic effect.
[2]Therapeutic class is based on the *National Drug Code Directory,* 1995 edition (14). In cases where a drug had more than one therapeutic use, it was classified under each therapeutic class.
[3]NSAIDs are nonsteroidal anti-inflammatory drugs.

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

Table 24. Number and percentage of outpatient department visits with corresponding errors by providers seen: United States, 2003

Type of provider	Number of visits in thousands[1]	Standard error in thousands	Percent of visits	Standard error of percent
All visits	94,578	9,250	. . .	. . .
Any physician	74,400	7,592	78.7	2.4
Staff physician	70,002	7,321	74.0	2.4
Resident or intern	12,321	2,073	13.0	2.0
Other physician	2,252	635	2.4	0.6
R.N.[2]	39,003	4,819	41.2	3.9
L.P.N.[3]	15,322	4,154	16.2	3.6
Medical or nursing assistant	11,771	1,847	12.4	1.7
Medical technician or technologist	7,655	1,849	8.1	1.7
Nurse practitioner or midwife	6,886	1,606	7.3	1.5
Physician assistant	*6,891	2,460	*7.3	2.4
Other provider	7,602	1,111	8.0	1.2

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

Table 25. Number and percentage of outpatient department visits with corresponding standard errors by visit disposition: United States, 2003

Disposition	Number of visits in thousands[1]	Standard error in thousands	Percent of visits	Standard error of percent
All visits	94,578	9,250	. . .	. . .
Return at specified time	58,032	5,831	61.4	2.6
Return if needed, P.R.N.[2]	25,505	3,485	27.0	1.9
Referred to other physician	13,749	2,106	14.5	1.7
No followup planned	6,587	1,120	7.0	0.8
Telephone followup planned	*2,404	992	*2.5	1.0
Admitted to hospital	1,067	211	1.1	0.2
Other disposition	1,125	197	1.2	0.2
Blank	893	129	0.9	0.1

. . . Category not applicable.
* Figure does not meet standard of reliability or precision.
[1]Total exceeds "All visits" because more than one provider may be reported per visit.
[2]P.R.N. is as needed.

Technical Notes

Data collection

The NHAMCS data collection is authorized under section 306 of the Public Health Service Act (Title 42 U.S. Code), Section S242k. Participation is voluntary. In 2003, a sample of 546 general and short-stay hospitals was selected from a sampling frame constructed from products of Verispan, L.L.C., specifically their ''Healthcare Market Index'' and ''Hospital Market Profiling Solution.'' These products were formerly known as the SMG Hospital Database.

A special supplement of 66 hospitals was added to the NHAMCS in 2003 to increase reliability of OPD estimates for rural and proprietary hospitals. For the supplemental sample, a three-stage design was used where the first-stage was a selection of hospitals, regardless of PSUs. The supplemental sample used a list frame from the Verispan file of hospitals indicating the presence of an ED. Within sampled hospitals, selected clinics within OPDs and patient visits within clinics were sampled. The design of the sample within hospitals for the additional sample was identical to the within-hospital sample for the four-stage design (4).

Together, a sample of 546 hospitals was selected for the 2003 NHAMCS, of which 272 were in scope and had eligible OPDs. Of the 272 in-scope hospitals with OPDs, 231 participated, and 226 of them provided at least half of the Patient Record forms (PRFs) expected based on the total number of visits seen. They were considered fully or adequately responding, for an unweighted OPD response rate of 83.1 percent. A sample of 1,087 clinics was selected from the OPDs, and 983 of them provided 34,492 PRFs. Of these clinics, 948 of them responded fully or adequately, yielding a clinic response rate of 87.2 percent and an overall unweighted two-stage sampling response rate of 72.5 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 hospital and clinic level. FRs contacted the sampled hospitals for induction into the survey after an advance letter was mailed by NCHS notifying the hospitals of their selection for the survey. Hospital staff were instructed to complete the information requested on the PRFs (figure I). However, for 49.2 percent of the sampled records, FRs abstracted the data from medical records or computer printouts.

Health Insurance Portability and Accountability Act

In April 2003, the Privacy Rule of the Health Insurance Portability and Accountability Act (HIPAA) was implemented to establish minimum Federal standards for safeguarding the privacy of individually identifiable health information. No personally identifying information, such as patient's name, address or social security number, is collected in the NHAMCS. Data collection is authorized by Section 306 of the Public Health Service Act (Title 42, U.S. Code, 242k). All information collected is held in the strictest confidence according to law [Section 308(d) of the Public Health Service Act (42, U.S. Code, 242m(d))] and the Confidential Information Protection and Statistical Efficiency Act (Title 5 of PL 107–347). The NHAMCS protocol was approved by the NCHS Research Ethics Review Board in February 2003. Waivers of the requirements to obtain informed consent of patients and patient authorization for release of patient medical record data by health care providers were granted.

In the spring of 2003, the NHAMCS implemented additional data-collection procedures to help providers ensure patient confidentiality. Census Bureau field representatives were trained on how the Privacy Rule allows hospitals to make disclosures of protected health information without patient authorization for public health purposes and for research that has been approved by a Research Ethics Review Board. Hospitals were encouraged to accept a data-use agreement between them and CDC's NCHS because the Privacy Rule allows hospitals to disclose limited datasets (i.e., datasets with no direct patient identifiers) for research and public health purposes if such an agreement exists.

Sampling errors

The standard error is primarily a measure of the sampling variability that occurs 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 systematic biases in the data. The chances are 95 of 100 that an estimate from the sample differs from the value that would be obtained from a complete census by less than twice the standard error. The 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 percentage of the estimate.

The standard errors shown 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 (5). When it is not feasible to use statistical software, such as SUDAAN or STATA, for analyzing complex survey data, one may calculate approximate RSEs for aggregate estimates using generalized variance-curve parameters that are described in the *Public-Use File Documentation* (17).

Published and flagged estimates

Estimates are not shown 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 shown 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 if the RSE of the estimate exceeds 30 percent.

Estimation

Statistics from NHAMCS are derived by a multistage estimation procedure that produces essentially unbiased estimates. The estimation procedure has three basic components: inflation by reciprocals of the sampling selection probabilities, adjustment for nonresponse, and a population weighting ratio adjustment.

NHAMCS data were adjusted to account for two types of nonresponse. The first type of nonresponse occurred when a sample hospital refused to provide information about its OPD that was publicly known to exist. In this case, the weights of visits to hospitals similar to the nonrespondent hospitals were inflated to account for visits represented by the nonrespondent hospitals. Hospitals were judged to be similar and grouped together for nonresponse purposes if they had the same ownership control group (voluntary or nonprofit vs. other) and region. Beginning with the 1998 data, formation of groups of similar hospitals also considered the MSA status of the hospital (in an MSA or not in an MSA), with the following two exceptions: in the West, MSA status was not considered; in non-MSA hospitals in the other three regions, ownership control group (voluntary or nonprofit vs. other) was not considered. This was done because the sample size was too small to use the finer breakdowns in the regions affected.

Beginning with the 1997 survey, the population weighting ratio adjustment for OPD estimates was replaced by an adjustment that controls for effects of rotating hospital sample panels into and out of the sample each year. (The full NHAMCS hospital sample is partitioned into 16 panels, which are rotated into the sample over 16 periods of 4 weeks each so that only 13 panels are used in any 1 year.) Also, beginning with 1997 data, the sampling weights of some OPDs were permanently trimmed. Excessive weights were redistributed among hospitals with similar characteristics to reduce variances. Modifications were made if the population-based PSU selection probability was significantly smaller than the selection probability based on visits to the OPDs, the ideal measure of size, and if the OPD would otherwise have accounted for more than 15 percent of the estimated number of OPD visits in its region.

The second type of nonresponse occurred when a sample OPD clinic within a responding hospital failed to provide completed PRFs for a sample of patient visits. The weights of visits from responding OPD clinics were inflated to account for visits to similar nonresponding clinics where OPD clinics were judged to be similar if they were in the same region, clinic type, and ownership control group (voluntary nonprofit compared with other). There were six OPD clinic groups: (a) general medicine, (b) pediatrics, (c) surgery, (d) obstetrics and gynecology, (e) alcohol or substance abuse, and (f) other OPD clinics. Beginning with the 1998 data, formation of groups of similar clinics also considered the MSA status of the clinic (in an MSA compared with not in an MSA), with the following two exceptions: in the West, MSA status was not considered; in non-MSA clinics in the three other regions, ownership control group (voluntary or nonprofit vs. other) was not considered.

Starting in 2001, clinics that responded minimally (i.e., provided substantially fewer PRFs than expected) were considered nonrespondents for response rate calculations, but their records were included in the final data set. However, their visit weights were set not to exceed 50 percent of the clinic's count of visits. The remaining weight for these minimally responding clinics was accounted for by in-scope, responding clinics of similar hospitals that were in the same PSU.

Nonsampling errors

As in any survey, results are subject to both sampling and nonsampling errors. Nonsampling errors include reporting and processing errors and 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 to encourage uniform reporting, attention was given to the phrasing of questions, terms, and definitions. Also, pretesting of most data items and survey procedures was performed. Quality-control procedures and consistency and edit checks reduced errors in data coding and processing. Coding error rates ranged between 0.0 and 0.7 percent for various survey items.

Item nonresponse rates in NHAMCS are generally low (5 percent or less). However, levels of nonresponse can vary within the survey. Most nonresponse occurs when the needed information is not available in the medical record 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 tables include a combined entry of ''unknown or blank'' to display missing data. For items where combined item nonresponse is between 30 and 50 percent, percent distributions are not discussed. 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 cases 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 nonresponse greater than 50 percent, data are not shown.

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 all data items with the following exceptions: use of tobacco (38.1 percent), PCP (9.1 percent), referral status (19.9 percent), episode of care (5.3 percent), do other physicians share patient care (21.1 percent), and cause of injury (30.5 percent).

For some items, missing values were imputed by randomly assigning a

value from PRFs with similar characteristics. Imputations were based on geographic region, OPD volume by clinic type, and three-digit ICD–9–CM codes for primary diagnosis. Imputations were performed for the following variables—birth year (3.0 percent), sex (2.0 percent), race (11.8 percent), ethnicity (9.6 percent), patient seen before (0.4 percent), and how many past visits in the last 12 months (8.2 percent). The 2003 NHAMCS is the first data year that the two variables, ''has the patient been seen in this clinic before'' and ''how many past visits in the last 12 months'' were imputed. The variable ''ethnicity,'' not imputed in 1997–2002, was imputed in 2003 because the percentage of visits missing this information continues to decline as more States mandate its collection. Ethnicity was imputed by randomly assigning a value from a PRF with similar characteristics based on OPD volume by clinic type, State, and three-digit ICD–9–CM codes for primary diagnosis.

Tests of significance and rounding

Some figures in this report show 95 percent confidence intervals to indicate the stability of the point estimates relative to their individual stabilities. This permits the reader to assess substantive patterns in the data. However, it should be noted that examination of the amount of overlap between intervals is not equivalent to standard significance testing for differences.

In this report, the determination of statistical inference is based on the two-tailed *t*-test. The Bonferroni inequality was used to establish the critical value for statistically significant differences (0.05 level of significance) based on the number of possible comparisons within a particular variable (or a combination of variables) of interest. Terms relating to differences, such as ''greater than'' or ''less than,'' indicate that the difference is statistically significant. A lack of comment regarding the difference between any two estimates does not mean that the difference was tested and found to be not significant.

A weighted least-squares regression analysis was used to determine the significance of 1993–2003 trends. For the weighted least-squares test, the null hypothesis is that the slope, β, of the regression line between the two variables of interest does not significantly differ from zero, and the alternative hypothesis is that it does differ from zero (i.e., $H_0 : \beta = 0$, and $H_A : \beta \neq 0$). In this modified least-square regression, each estimate is weighted by the inverse of the standard error (18).

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

Race and ethnicity

The instruction for the race item on the PRF 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. Among the standards issued in 1997 is the reporting of more than one race per patient, if applicable (19). 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. Before 1999, only a single race category could be checked per person. Estimates for specific race categories reflect visits where only a single race was reported. See ''Population figures and rate calculation'' in the ''Technical Notes'' for more information. According to the same standards, race and Hispanic or Latino origin were collected separately. Consequently, all race categories include visits by persons of Hispanic or Latino and not Hispanic or Latino origin. Persons of Hispanic or Latino origin may be of any race.

Finally, this report presents data on patient ethnicity, which has previously not been included in NHAMCS summaries because of high item nonresponse. Almost half of the States in the United States require hospitals to collect data on patient race and ethnicity (20). However, about 8 of 10 Hispanic or Latino residents of the United States live in States that mandate such collection according to the Census Bureau's State population projections by Hispanic origin for the year 2000 (21). During the past 10 years, the NHAMCS item nonresponse rate for ethnicity has been declining so that it is now less than 10 percent in the OPD data. Because of the mandates to collect ethnicity and the growing Hispanic population, it was decided to impute for missing ethnicity data and to present the resulting estimates in the annual summary report.

Injury groupings

Table 14 shown data on the intent and mechanism producing the injuries that resulted in visits to OPDs. Cause of injury is collected for each sampled injury visit in the NHAMCS and is coded according to ICD–9–CM's ''Supplementary Classification of External Causes of Injury and Poisoning.'' However, for table 14, 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 I shows the E-code groupings used to produce this table.

Population figures and rate calculation

The denominators used in calculating 2003 visit rates for age, sex, race, and geographic region are Census 2000-based postcensal estimates of the civilian noninstitutionalized population of the United States. The population estimates are special tabulations developed by the Population Division, U.S. Census Bureau, from the July 1, 2003 set of State population estimates by age, sex, and race. Population estimates of MSA status are based on data from the 2003 NHIS, NCHS, adjusted to the U.S. Census Bureau definition of core-based statistical areas as of December 2003. See www.census.gov/population/www/estimates/metrodef.html for more about MSA definitions.

Estimates of visit rates for MSAs and non-MSAs in 2003 may differ somewhat from those reported in 2002 and previous years because of methodologic differences in how the denominators were calculated. In survey years 1992–2002, NHIS used a 1992 definition of MSAs and non-MSAs. NHIS also used 1990-based census estimates as controls for calculating population estimates through 2002. Because the NHAMCS used Census 2000-based estimates beginning in 2001, adjustments needed to be made to the MSA figures obtained from the NHIS in 2001 and 2002. For 2003, special tabulations were obtained from the Office of Analysis and Epidemiology, NCHS, where 2003 NHIS data were matched to the December 2003 U.S. Census Bureau definition of core-based statistical areas. The estimates were further adjusted based on the 2003 population estimates obtained from the Census Bureau.

Denominators used in computing estimates of visit rates by expected source of payment were obtained from the 2003 NHIS. Individuals reporting multiple insurance categories in the NHIS were counted in each category they reported, with the exception of Medicaid and SCHIP, which were combined into a single category.

Population estimates for race groups in the 2003 NAMCS and NHAMCS are based on Census 2000, in which respondents were able to indicate more than one race category (as requested by the 1997 Standards for Federal Data on Race and Ethnicity) (19). 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 2003 census population estimates indicate that multiple-race persons account for 1.5 percent of the total population, whereas multiple-race patients (as indicated by the provider) account for 0.9 percent of OPD visits. This difference exists because hospital staff 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 OPD visits. This implies that the race population rates calculated in 2003 are probably slight overestimates for the single-race categories and underestimates for the multiple-race category.

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

Intent and mechanism of injury	Cause of injury[1]
Unintentional injuries	E800–E848, E850–E869, E880–E929
Falls	E880.0–E886.9, E888
Motor vehicle traffic	E810–E819
Struck against or struck accidentally by objects or persons	E916–E917
Natural and environmental factors	E900–E909, E928.0–E928.2
Cutting or piercing instruments or objects	E920
Overexertion and strenuous movements	E927
Other and not elsewhere classified	E830, E832, E846–E848, E890–E899, E910–E915, E918, E921, E923, E926, E929.0–E929.5
Mechanism unspecified	E887, E928.3, E928.9, E929.8, E929.9
Intentional injuries	E950–E959, E960–E969, E970–E978, E990–E999
Injuries of undetermined intent	E980–E989
Adverse effects of medical treatment	E870–E879, E930–E949

[1]Based on the ''Supplementary Classification of External Causes of Injury and Poisoning,'' *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD–9–CM) (12).

Definition of terms

Clinic—A clinic is an administrative unit of the outpatient department where ambulatory medical care is provided under the supervision of a physician. The following are examples of the types of clinics included in NHAMCS: general medicine, surgery, pediatrics, obstetrics and gynecology, substance abuse (excluding methadone maintenance), and others (e.g., psychiatry and neurology). Clinics excluded from NHAMCS include: ambulatory surgery centers, chemotherapy, employee health service, renal dialysis, methadone maintenance, and radiology.

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

Drug mention—A drug mention is the health care provider's entry on the PRF 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 health care provider also records continued medications if the patient was specifically instructed during the visit to continue the medication. Health care providers may report up to eight medications per visit.

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

Emergency department—An ED is a hospital facility for the provision of unscheduled outpatient services to patients whose conditions require immediate care and that is staffed 24 hours a day.

Episode of care—This term attempts to measure the nature of the care provided at the visit, an initial visit compared with 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 to continue therapy.

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

Hospital—To be in-scope for the NHAMCS, a hospital must have an average length of stay for all patients of less than 30 days (short stay) or be a hospital whose specialty is general (medical or surgical) or children's general, except Federal hospitals, hospital units of institutions, and hospitals with fewer than six beds staffed for patient use.

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

Initial visit—This is the first visit by this patient for care of this 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?;'' if a cause of injury or a nature-of-injury diagnosis was provided; or if an injury-related reason for visit was reported.

Outpatient department—An OPD is a hospital facility where nonurgent ambulatory medical care is provided under the supervision of a physician.

Ownership—Hospitals are designated according to the primary owner of the hospital based on the VHD.

Voluntary nonprofit—Hospitals are church related, a nonprofit corporation, or have other nonprofit ownership.

Government, non-Federal—Hospitals are operated by a State, county, city, city-county, or hospital district or authority.

Proprietary—Hospitals are individually owned, are partnerships, or are corporations.

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

Primary care physician or provider—The primary care physician 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.

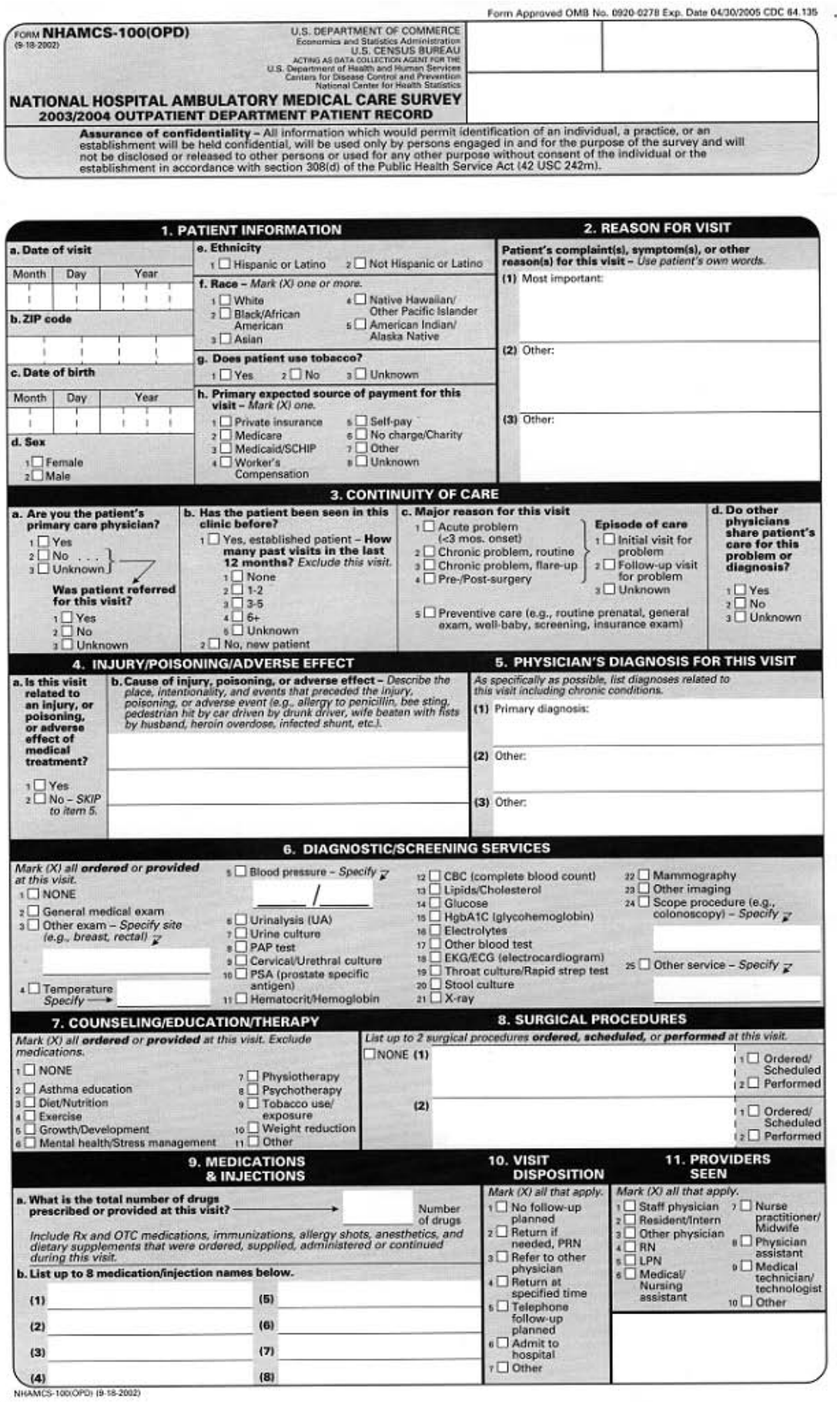
Primary expected source of payment—To the best of the hospital staff's knowledge, this describes how charges incurred for the visit will be paid:

- *Self-pay*—Charges not reimbursed by a third party are billed directly to the patient. It does not include prepaid plans for which a copayment is charged.
- *Medicare*—Charges are paid in part or in full by a Medicare plan, including payments made directly to the hospital as well as payments to the patient.
- *Medicaid or SCHIP*—Charges are paid in part or in full by Medicaid or SCHIP, including payments made directly to the hospital as well as payments to the patient. SCHIP, enacted as part of the Balanced Budget Act of 1997, gave States the opportunity to provide free or low-cost insurance coverage to low-income children not otherwise eligible to be covered by Medicaid. States began enrolling children in 1998 using Medicaid or State-specific programs separate from Medicaid or both. By 2000, all States had implemented their SCHIP.
- *Private insurance*—Charges are paid in part or in full by a private insurance company, HMO plan, or other prepayment plan, including independent practice associations and preferred provider organizations.
- *No charge or charity*—These are visits for which no fee is charged (not including visits paid for as part of a total care package, such as postoperative visits included in a surgical fee, pregnancy visits for which a flat fee was charged, and HMO and prepaid systems).
- *Other sources*—These are all other sources of payment not in the preceding categories. Charges are paid under any other local, State, or Federal health care program, such as worker's compensation programs and any type of military health plan.
- *Unknown*—These are cases where none of the previous sources of payment categories was checked.

The expected source of payment item varied between 1993 and 2003. From 1993 to 1994, the item was a multiple-selection item allowing the respondent to check all sources that apply. In 1995 and 1996, the item was split into two sections, allowing multiple selection for type of insurance (e.g., Medicaid, Medicare, private, or workers' compensation) but single selection for type of plan (e.g., fee-for-service insurance, HMO, self-pay, or charity). From 1997 to 2000, the items were again rewritten to make two items, a single selection for source of payment and a separate item for HMO status of the patient (e.g., ''Is patient a member of an HMO?''). From 2001 to 2003, only one primary payment source was selected. Because the payment item varied over the years from multiple to single selection, an algorithm was used to arrive at a primary payer, whereby Medicaid and Medicare (regardless of HMO status) were assigned a higher priority than private insurance (including HMOs and other prepaid plans) or self-pay when more than one category was indicated.

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

Visit rate—The visit rate is a basic measure of service use for event-based surveys. The numerator is the number of estimated visits and the denominator is the corresponding U.S. population estimate for those who could have made the visits. The interpretation is that, for every person in the population, there are *x* visits made. It does not mean that *x* percentage of the population made visits because some persons in the population make no visits and others make multiple visits within a given year. The only exception is when an event can occur



Form Approved OMB No. 0920-0278 Exp. Date 04/30/2005 CDC 64.135

FORM **NHAMCS-100(OPD)** (9-18-2002)

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

NATIONAL HOSPITAL AMBULATORY MEDICAL CARE SURVEY
2003/2004 OUTPATIENT DEPARTMENT 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

a. Date of visit — Month | Day | Year

b. ZIP code

c. Date of birth — Month | Day | Year

d. Sex
1 ☐ Female
2 ☐ Male

e. Ethnicity
1 ☐ Hispanic or Latino
2 ☐ Not Hispanic or Latino

f. Race – *Mark (X) one or more.*
1 ☐ White
2 ☐ Black/African American
3 ☐ Asian
4 ☐ Native Hawaiian/ Other Pacific Islander
5 ☐ American Indian/ Alaska Native

g. Does patient use tobacco?
1 ☐ Yes 2 ☐ No 3 ☐ Unknown

h. Primary expected source of payment for this visit – *Mark (X) one.*
1 ☐ Private insurance
2 ☐ Medicare
3 ☐ Medicaid/SCHIP
4 ☐ Worker's Compensation
5 ☐ Self-pay
6 ☐ No charge/Charity
7 ☐ Other
8 ☐ Unknown

2. REASON FOR VISIT

Patient's complaint(s), symptom(s), or other reason(s) for this visit – *Use patient's own words.*

(1) Most important:

(2) Other:

(3) Other:

3. CONTINUITY OF CARE

a. Are you the patient's primary care physician?
1 ☐ Yes
2 ☐ No . . .
3 ☐ Unknown

Was patient referred for this visit?
1 ☐ Yes
2 ☐ No
3 ☐ Unknown

b. Has the patient been seen in this clinic before?
1 ☐ Yes, established patient – **How many past visits in the last 12 months?** *Exclude this visit.*
1 ☐ None
2 ☐ 1-2
3 ☐ 3-5
4 ☐ 6+
5 ☐ Unknown
2 ☐ No, new patient

c. Major reason for this visit
1 ☐ Acute problem (<3 mos. onset)
2 ☐ Chronic problem, routine
3 ☐ Chronic problem, flare-up
4 ☐ Pre-/Post-surgery
5 ☐ Preventive care (e.g., routine prenatal, general exam, well-baby, screening, insurance exam)

Episode of care
1 ☐ Initial visit for problem
2 ☐ Follow-up visit for problem
3 ☐ Unknown

d. Do other physicians share patient's care for this problem or diagnosis?
1 ☐ Yes
2 ☐ No
3 ☐ Unknown

4. INJURY/POISONING/ADVERSE EFFECT

a. Is this visit related to an injury, or poisoning, or adverse effect of medical treatment?
1 ☐ Yes
2 ☐ No – *SKIP to item 5.*

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 shunt, etc.).*

5. PHYSICIAN'S DIAGNOSIS FOR THIS VISIT

As specifically as possible, list diagnoses related to this visit including chronic conditions.

(1) Primary diagnosis:

(2) Other:

(3) Other:

6. DIAGNOSTIC/SCREENING SERVICES

Mark (X) all ***ordered*** *or* ***provided*** *at this visit.*
1 ☐ NONE
2 ☐ General medical exam
3 ☐ Other exam – *Specify site (e.g., breast, rectal)*
4 ☐ Temperature *Specify* →
5 ☐ Blood pressure – *Specify* ____/____
6 ☐ Urinalysis (UA)
7 ☐ Urine culture
8 ☐ PAP test
9 ☐ Cervical/Urethral culture
10 ☐ PSA (prostate specific antigen)
11 ☐ Hematocrit/Hemoglobin
12 ☐ CBC (complete blood count)
13 ☐ Lipids/Cholesterol
14 ☐ Glucose
15 ☐ HgbA1C (glycohemoglobin)
16 ☐ Electrolytes
17 ☐ Other blood test
18 ☐ EKG/ECG (electrocardiogram)
19 ☐ Throat culture/Rapid strep test
20 ☐ Stool culture
21 ☐ X-ray
22 ☐ Mammography
23 ☐ Other imaging
24 ☐ Scope procedure (e.g., colonoscopy) – *Specify*
25 ☐ Other service – *Specify*

7. COUNSELING/EDUCATION/THERAPY

Mark (X) all ***ordered*** *or* ***provided*** *at this visit. Exclude medications.*
1 ☐ NONE
2 ☐ Asthma education
3 ☐ Diet/Nutrition
4 ☐ Exercise
5 ☐ Growth/Development
6 ☐ Mental health/Stress management
7 ☐ Physiotherapy
8 ☐ Psychotherapy
9 ☐ Tobacco use/ exposure
10 ☐ Weight reduction
11 ☐ Other

8. SURGICAL PROCEDURES

List up to 2 surgical procedures ***ordered, scheduled,*** *or* ***performed*** *at this visit.*

☐ NONE (1)
1 ☐ Ordered/ Scheduled
2 ☐ Performed

(2)
1 ☐ Ordered/ Scheduled
2 ☐ Performed

9. MEDICATIONS & INJECTIONS

a. What is the total number of drugs prescribed or provided at this visit? → 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. List up to 8 medication/injection names below.

(1) (2) (3) (4) (5) (6) (7) (8)

10. VISIT DISPOSITION

Mark (X) all that apply.
1 ☐ No follow-up planned
2 ☐ Return if needed, PRN
3 ☐ Refer to other physician
4 ☐ Return at specified time
5 ☐ Telephone follow-up planned
6 ☐ Admit to hospital
7 ☐ Other

11. PROVIDERS SEEN

Mark (X) all that apply.
1 ☐ Staff physician
2 ☐ Resident/Intern
3 ☐ Other physician
4 ☐ RN
5 ☐ LPN
6 ☐ Medical/ Nursing assistant
7 ☐ Nurse practitioner/ Midwife
8 ☐ Physician assistant
9 ☐ Medical technician/ technologist
10 ☐ Other

NHAMCS-100(OPD) (9-18-2002)

Figure I. Patient Record form

just once for a person (e.g., if an appendectomy were performed during the visit). The visit rate is best used to compare amounts of use across various subgroups of interest, such as age, race, or geographic region (e.g., the rate of U.S. OPD visits in 2003 was 59.7 visits per 100 black or African American persons and 29.9 visits per 100 white persons).

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