

Advance Data



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

National Hospital Ambulatory Medical Care Survey: 1993 Outpatient Department Summary

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Introduction

During the 12-month period January–December 1993, an estimated 62.5 million visits were made to outpatient departments (OPD's) of non-Federal, short-stay, and general hospitals in the United States—24.6 visits per 100 persons. This was not significantly different from the 1992 rate of 22.5 visits per 100 persons.

This report presents data on OPD visits from the 1993 National Hospital Ambulatory Medical Care Survey (NHAMCS), a national probability survey conducted by the Division of Health Care Statistics, National Center for Health Statistics, Centers for Disease Control and Prevention. The survey was inaugurated in December 1991 to gather and disseminate information about the health care provided by hospital emergency and outpatient departments to the population of the United States. It is endorsed by the American Hospital Association, the Emergency Nurses Association, and the American College of Emergency Physicians.

This report presents data on OPD patient characteristics and visit characteristics. Data from the 1992 NHAMCS have been published (1–4), and a report on 1993 NHAMCS

emergency department visits is forthcoming (5).

Because the estimates presented in this report are based on a sample rather than on the entire universe of hospital OPD visits, they are subject to sampling variability. The Technical notes at the end of this report include a brief overview of the sample design used in the 1993 NHAMCS and an explanation of sampling errors. A detailed description of the NHAMCS sample design and survey methodology has been published (6).

The OPD Patient Record form is used by hospitals participating in the NHAMCS to record information about patient visits. This form (figure 1) is intended to serve as a reference for readers as they review the survey findings presented in this document.

Patient characteristics

OPD visits by patient's age, sex, and race are shown in table 1. There were no significant differences in OPD visit rates among any of the age groups. Females made 62.3 percent of all OPD visits and had a higher visit rate (29.8 visits per 100 persons) than males (19.1 visits per 100 persons) did.

White persons made 74.1 percent of all OPD visits, with black persons and

Asian/Pacific Islanders accounting for 22.4 percent and 3.2 percent, respectively. The visit rate for black persons was significantly higher than for white persons overall and in all age categories (figure 2).

Outpatient department visit characteristics

Geographic region

By region, the largest proportion of OPD visits was made in the Northeast (34.6 percent). Visit rates in the Northeast (43.3 visits per 100 persons) and the Midwest (31.1 visits per 100 persons) were higher than those in the West (10.3 visits per 100 persons).

Clinic type

A clinic was defined as an administrative unit of the OPD where ambulatory medical care is provided under the supervision of a physician. Clinics where only ancillary services, such as radiology, renal dialysis, and pharmacy, were provided or other settings in which physician services were not typically provided, were out of scope for the survey. In addition, ambulatory surgery centers were out of scope since they are included in the National Survey of Ambulatory Surgery.



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Public Health Service
Centers for Disease Control and Prevention
National Center for Health Statistics



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

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NOTICE — Information contained on this form which would permit identification of any individual or establishment has been collected with a guarantee that it will be held in strict confidence, will be used only for purposes stated for this study, and will not be disclosed or released to others without the consent of the individual or the establishment in accordance with section 308(d) of the Public Health Service Act (42 USC 242m). Public reporting burden for this phase of the survey is estimated to average 3 minutes per response. If you have any comments regarding the burden estimate or any other aspect of this survey, including suggestions for reducing this burden, send them to the PHS Reports Clearance Officer; Attn: PRA: HHH Building, Rm. 721-B; 200 Independence Ave., S.W., Washington, DC 20201, and to the Office of Management and Budget; Paperwork Reduction Project (0920-0278); Washington, DC 20503.

**NATIONAL HOSPITAL AMBULATORY
 MEDICAL CARE SURVEY
 OUTPATIENT DEPARTMENT
 PATIENT RECORD
 1993-94**

1. PATIENT NAME _____
 2. PATIENT RECORD NO. _____

3. DATE OF VISIT _____ / _____ / _____ Month Day Year	5. SEX 1 <input type="checkbox"/> Female 2 <input type="checkbox"/> Male	6. RACE 1 <input type="checkbox"/> White 2 <input type="checkbox"/> Black 3 <input type="checkbox"/> Asian / Pacific Islander 4 <input type="checkbox"/> American Indian / Eskimo / Aleut	7. ETHNICITY 1 <input type="checkbox"/> Hispanic origin 2 <input type="checkbox"/> Not Hispanic	8. EXPECTED SOURCE(S) OF PAYMENT <i>(Check all that apply)</i> 1 <input type="checkbox"/> Private / commercial 5 <input type="checkbox"/> HMO/ other prepaid 2 <input type="checkbox"/> Medicare 6 <input type="checkbox"/> Patient paid 3 <input type="checkbox"/> Medicaid 7 <input type="checkbox"/> No charge 4 <input type="checkbox"/> Other government 8 <input type="checkbox"/> Other	9. WAS PATIENT REFERRED FOR THIS VISIT BY ANOTHER PHYSICIAN? 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No																											
4. DATE OF BIRTH _____ / _____ / _____ Month Day Year																																
10. PATIENT'S COMPLAINT(S), SYMPTOM(S), OR OTHER REASON(S) FOR THIS VISIT <i>(In patient's own words)</i> a. Most important: _____ b. Other: _____ c. Other: _____			11. PHYSICIAN'S DIAGNOSES a. Principal diagnosis / problem associated with item 10.a. _____ b. Other: _____ c. Other: _____		12. HAS PATIENT BEEN SEEN IN THIS CLINIC BEFORE 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No ↓ If yes, for the condition in item 11a? 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No																											
13. TESTS, SURGICAL AND NONSURGICAL PROCEDURES, AND THERAPIES None <input type="checkbox"/> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; vertical-align: top;"> a. SELECTED SERVICES <i>(Check all ordered or provided)</i> 1 <input type="checkbox"/> Blood pressure 2 <input type="checkbox"/> Urinalysis 3 <input type="checkbox"/> Spirometry 4 <input type="checkbox"/> Allergy testing 5 <input type="checkbox"/> HIV serology 6 <input type="checkbox"/> Other blood test </td> <td style="width:50%; vertical-align: top;"> b. ALL OTHER SERVICES Include: • Tests • Imagings • Surgeries and other procedures • Other therapies (such as contact lenses, psychotherapy, or physiotherapy) Exclude: • Services in item 13a • Counseling / education • Medications <i>(Record one on each line and check performed or ordered for each.)</i> </td> </tr> <tr> <td style="vertical-align: top;"> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;"></td> <td style="text-align: center;">Performed</td> <td style="text-align: center;">Ordered</td> </tr> <tr> <td>1 _____</td> <td style="text-align: center;">1 <input type="checkbox"/></td> <td style="text-align: center;">2 <input type="checkbox"/></td> </tr> <tr> <td>2 _____</td> <td style="text-align: center;">1 <input type="checkbox"/></td> <td style="text-align: center;">2 <input type="checkbox"/></td> </tr> <tr> <td>3 _____</td> <td style="text-align: center;">1 <input type="checkbox"/></td> <td style="text-align: center;">2 <input type="checkbox"/></td> </tr> <tr> <td>4 _____</td> <td style="text-align: center;">1 <input type="checkbox"/></td> <td style="text-align: center;">2 <input type="checkbox"/></td> </tr> <tr> <td>5 _____</td> <td style="text-align: center;">1 <input type="checkbox"/></td> <td style="text-align: center;">2 <input type="checkbox"/></td> </tr> <tr> <td>6 _____</td> <td style="text-align: center;">1 <input type="checkbox"/></td> <td style="text-align: center;">2 <input type="checkbox"/></td> </tr> </table> </td> <td colspan="2"></td> </tr> </table>					a. SELECTED SERVICES <i>(Check all ordered or provided)</i> 1 <input type="checkbox"/> Blood pressure 2 <input type="checkbox"/> Urinalysis 3 <input type="checkbox"/> Spirometry 4 <input type="checkbox"/> Allergy testing 5 <input type="checkbox"/> HIV serology 6 <input type="checkbox"/> Other blood test	b. ALL OTHER SERVICES Include: • Tests • Imagings • Surgeries and other procedures • Other therapies (such as contact lenses, psychotherapy, or physiotherapy) Exclude: • Services in item 13a • Counseling / education • Medications <i>(Record one on each line and check performed or ordered for each.)</i>	<table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;"></td> <td style="text-align: center;">Performed</td> <td style="text-align: center;">Ordered</td> </tr> <tr> <td>1 _____</td> <td style="text-align: center;">1 <input type="checkbox"/></td> <td style="text-align: center;">2 <input type="checkbox"/></td> </tr> <tr> <td>2 _____</td> <td style="text-align: center;">1 <input type="checkbox"/></td> <td style="text-align: center;">2 <input type="checkbox"/></td> </tr> <tr> <td>3 _____</td> <td style="text-align: center;">1 <input type="checkbox"/></td> <td style="text-align: center;">2 <input type="checkbox"/></td> </tr> <tr> <td>4 _____</td> <td style="text-align: center;">1 <input type="checkbox"/></td> <td style="text-align: center;">2 <input type="checkbox"/></td> </tr> <tr> <td>5 _____</td> <td style="text-align: center;">1 <input type="checkbox"/></td> <td style="text-align: center;">2 <input type="checkbox"/></td> </tr> <tr> <td>6 _____</td> <td style="text-align: center;">1 <input type="checkbox"/></td> <td style="text-align: center;">2 <input type="checkbox"/></td> </tr> </table>		Performed	Ordered	1 _____	1 <input type="checkbox"/>	2 <input type="checkbox"/>	2 _____	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 _____	1 <input type="checkbox"/>	2 <input type="checkbox"/>	4 _____	1 <input type="checkbox"/>	2 <input type="checkbox"/>	5 _____	1 <input type="checkbox"/>	2 <input type="checkbox"/>	6 _____	1 <input type="checkbox"/>	2 <input type="checkbox"/>			14. COUNSELING/EDUCATION <i>(Check all ordered or provided)</i> 1 <input type="checkbox"/> None 2 <input type="checkbox"/> Exercise 3 <input type="checkbox"/> Cholesterol reduction 4 <input type="checkbox"/> Weight reduction 5 <input type="checkbox"/> Smoking cessation 6 <input type="checkbox"/> Growth / development 7 <input type="checkbox"/> Injury prevention 8 <input type="checkbox"/> HIV transmission 9 <input type="checkbox"/> Other STD transmission 10 <input type="checkbox"/> Other	
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15. MEDICATIONS / INJECTIONS None <input type="checkbox"/> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:33%; vertical-align: top;"> Include: • Rx and OTC • Immunizations • Allergy shots • Anesthetics </td> <td style="width:33%; vertical-align: top;"> • Meds ordered, supplied, or administered </td> <td style="width:33%; vertical-align: top;"> • New meds • Continuing meds (with or without new orders) </td> </tr> <tr> <td>1 _____</td> <td></td> <td></td> </tr> <tr> <td>2 _____</td> <td></td> <td></td> </tr> <tr> <td>3 _____</td> <td></td> <td></td> </tr> <tr> <td>4 _____</td> <td></td> <td></td> </tr> <tr> <td>5 _____</td> <td></td> <td></td> </tr> </table>			Include: • Rx and OTC • Immunizations • Allergy shots • Anesthetics	• Meds ordered, supplied, or administered	• New meds • Continuing meds (with or without new orders)	1 _____			2 _____			3 _____			4 _____			5 _____			16. DISPOSITION THIS VISIT <i>(Check all that apply)</i> 1 <input type="checkbox"/> No follow-up planned 2 <input type="checkbox"/> Return to clinic PRN 3 <input type="checkbox"/> Return to clinic - appointment 4 <input type="checkbox"/> Telephone follow-up planned 5 <input type="checkbox"/> Return to referring physician 6 <input type="checkbox"/> Refer to other physician/clinic 7 <input type="checkbox"/> Admit to hospital 8 <input type="checkbox"/> Other <i>(Specify)</i> _____											
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			17. PROVIDERS SEEN THIS VISIT <i>(Check all that apply)</i> 1 <input type="checkbox"/> Resident/Intern 2 <input type="checkbox"/> Staff physician 3 <input type="checkbox"/> Other physician 4 <input type="checkbox"/> Physician assistant/ Nurse practitioner 5 <input type="checkbox"/> Registered nurse 6 <input type="checkbox"/> Licensed practical nurse 7 <input type="checkbox"/> Nurse's aide 8 <input type="checkbox"/> Other <i>(Specify)</i> _____																													

Figure 1. National Hospital Ambulatory Medical Care Survey Outpatient Department Patient Record.

Table 1. Number, percent distribution, and annual rate of outpatient department visits with corresponding standard errors by selected patient and outpatient department characteristics: United States, 1993

<i>Patient and outpatient department characteristics</i>	<i>Number of visits in thousands</i>	<i>Standard error in thousands</i>	<i>Percent distribution</i>	<i>Standard error of percent</i>	<i>Number of visits per 100 persons per year¹</i>	<i>Standard error of rate</i>
All visits	62,534	7,330	100.0	...	24.6	2.9
<i>Patient characteristic</i>						
<i>Age:</i>						
Under 15 years	12,927	1,990	20.7	2.0	22.6	3.5
15–24 years	8,512	1,248	13.6	0.9	24.8	3.6
25–44 years	18,299	2,248	29.3	1.0	22.4	2.8
45–64 years	12,365	1,371	19.8	0.8	24.8	2.8
65–74 years	5,865	893	9.4	0.7	31.5	4.8
75 years and over	4,567	868	7.3	0.9	36.1	6.9
<i>Sex and age:</i>						
Female	38,935	4,648	62.3	0.9	29.8	3.6
Under 15 years	6,420	1,018	10.3	1.0	23.0	3.6
15–24 years	6,698	1,020	10.7	0.9	38.9	5.9
25–44 years	12,081	1,576	19.3	0.8	29.2	3.8
45–64 years	7,388	804	11.8	0.5	28.6	3.1
65–74 years	3,440	494	5.5	0.4	33.5	4.8
75 years and over	2,908	565	4.7	0.6	36.9	7.2
Male	23,600	2,783	37.7	0.9	19.1	2.2
Under 15 years	6,507	991	10.4	1.0	22.2	3.4
15–24 years	1,814	282	2.9	0.2	10.6	1.6
25–44 years	6,218	749	9.9	0.5	15.5	1.9
45–64 years	4,977	605	8.0	0.4	20.8	2.5
65–74 years	2,426	424	3.9	0.4	29.0	5.1
75 years and over	1,659	321	2.7	0.3	34.8	6.7
<i>Race and age:</i>						
White	46,337	6,519	74.1	2.2	21.9	3.1
Under 15 years	9,026	1,576	14.4	1.5	19.9	3.5
15–24 years	6,257	1,109	10.0	0.9	22.8	4.0
25–44 years	13,449	1,939	21.5	1.0	19.9	2.9
45–64 years	9,156	1,191	14.6	0.7	21.4	2.8
65–74 years	4,676	827	7.5	0.7	28.3	5.0
75 years and over	3,772	844	6.0	0.9	33.0	7.4
Black	14,015	1,320	22.4	2.1	43.8	4.1
Under 15 years	3,398	534	5.4	0.8	37.2	5.8
15–24 years	1,970	242	3.2	0.4	38.3	4.7
25–44 years	4,159	429	6.7	0.7	41.9	4.3
45–64 years	2,751	328	4.4	0.5	53.6	6.4
65–74 years	1,006	130	1.6	0.2	60.1	7.8
75 years and over	731	115	1.2	0.2	73.2	11.5
<i>All other races:</i>						
Asian/Pacific Islander	2,006	321	3.2	0.4	...	...
American Indian/Eskimo/Aleut	177	534	0.3	0.1	...	...
<i>Outpatient department characteristic</i>						
<i>Geographic region:</i>						
Northeast	21,668	4,155	34.7	5.1	43.3	8.3
Midwest	17,694	5,140	28.3	5.8	28.5	8.3
South	14,389	2,328	23.0	3.6	16.9	2.7
West	8,783	2,150	14.0	3.1	15.5	3.8

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

Clinics were classified into five types as presented in table 2. About half of all OPD visits (47.1 percent) were made to general medicine clinics that included internal medicine and primary

care clinics. Pediatric, obstetrics and gynecology, and surgery clinics accounted for 18.0 percent, 14.7 percent, and 13.4 percent of visits, respectively. The “other” clinic category, which

included such clinics as psychiatry and neurology, accounted for 6.8 percent of visits.

Expected sources of payment

Expected sources of payment were most often Medicaid (31.1 percent), private/commercial insurance (27.0 percent), and Medicare (16.9 percent) (table 3). "Patient paid" and "HMO/Other prepaid" were indicated at 12.1 and 8.8 percent of OPD visits, respectively. The patient-paid category includes the patient's contribution toward "copayments" and "deductibles."

Referral status and prior visit status

Approximately one-fifth (19.7 percent) of OPD visits were made as the result of a referral from another physician (table 4). About three-quarters (79.5 percent) of OPD visits were made by patients who had been seen in the clinic on a previous occasion, and more than half (63.7 percent) of all visits were made by persons who were returning to the clinic for care of a previously treated problem. One-fifth (20.5 percent) of visits were made by new patients, that is, patients who had not been seen in that clinic before.

Reason for visit

In item 10 of the Patient Record form, the patient's (or patient surrogate's) "complaint(s), symptom(s), or other reason(s) for this visit in the patient's own words" is recorded. Up to three reasons for visit are classified and coded according to *A Reason for Visit Classification for Ambulatory Care* (RVC) (7). The principal reason is the problem, complaint, or reason listed in item 10a of the OPD Patient Record form.

The RVC is divided into the eight modules or groups of reasons displayed in table 5. About 4 of every 10 visits were made for reasons classified as symptoms, with the diagnostic/screening and preventive module and the treatment module each accounting for about one fifth of the visits (19.5 and 18.7 percent respectively). The 20 most frequently mentioned principal reasons for visit, representing 42.6 percent of all visits, are shown in table 6. It is important to note that estimates differing in ranked

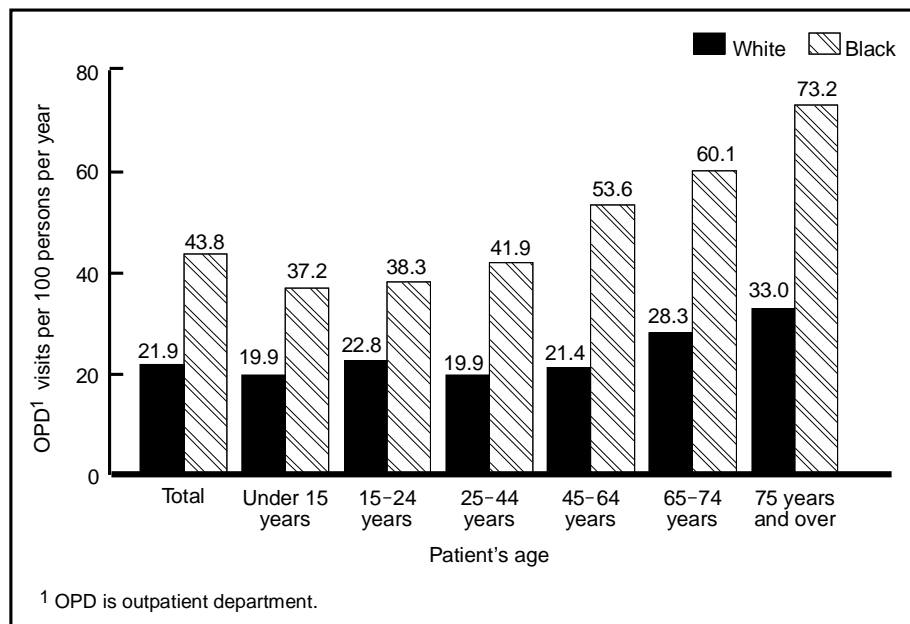


Figure 2. Annual rate of outpatient department visits by patient's age and race: United States, 1993

Table 2. Number and percent distribution of outpatient department visits with corresponding standard errors by type of clinic: United States, 1993

Type of clinic	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits	62,534	7,330	100.0	...
General medicine	29,443	4,265	47.1	2.9
Surgery	8,382	1,517	13.4	1.9
Pediatrics	11,274	1,728	18.0	1.8
Obstetrics and gynecology	9,169	1,722	14.7	1.8
Other	4,266	808	6.8	1.2

Table 3. Number and percent of outpatient department visits with corresponding standard errors by patient's expected source of payment: United States, 1993

Expected source of payment	Number of visits in thousands ¹	Standard error in thousands	Percent	Standard error of percent
All visits	62,534	7,330	...	...
Medicaid	19,442	2,124	31.1	2.3
Private/commercial	16,906	3,390	27.0	2.6
Medicare	10,542	1,693	16.9	1.4
Patient-paid	7,592	989	12.1	1.1
HMO/other prepaid ²	5,496	1,216	8.8	1.5
Other	2,835	605	4.5	0.7
Other government	2,755	557	4.4	0.7
No charge	1,392	431	2.2	0.6
Unspecified	2,243	749	3.6	1.1

¹Numbers may exceed total number of visits because more than one source of payment may be coded for each visit.

²HMO is health maintenance organization.

order may not be significantly different from each other. "Progress visit" was the most frequently mentioned visit (10.5 percent), reflecting the large number of return visits for a previously treated problem. Five of the top 20 reasons for visit, which accounted for 15 percent of all OPD visits, were classified in the diagnostic screening and preventive module. The reasons were "Routine prenatal examination," "General medical examination," "Well baby examination," "Other and unspecified diagnostic tests," and "Prophylactic inoculations." "Stomach and abdominal pain, cramps and spasms," and "Cough" were the most frequently mentioned reasons for visit in the symptom module each accounting for 1.8 percent of the visits.

Principal diagnosis

The principal diagnosis or problem associated with the patient's most important reason for visit and any other significant current diagnoses are recorded in item 11. Up to three diagnoses are coded and classified according to the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM)* (8). Displayed in table 7 are OPD visits by principal diagnosis using the major

Table 4. Number and percent distribution of outpatient department visits with corresponding standard errors by referral status and prior visit status: United States, 1993

Visit characteristic	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits	62,534	7,330	100.0	...
Referral status				
Not referred by another physician	50,185	6,261	80.3	1.6
Referred by another physician	12,350	1,566	19.7	1.6
Prior visit status				
Old patient	49,727	6,061	79.5	1.1
Old problem	39,823	4,858	63.7	1.3
New problem	9,904	1,473	15.8	1.2
New patient	12,807	1,510	20.5	1.1

disease categories specified by the ICD-9-CM. The supplementary classification is provided to deal with situations in which circumstances other than a disease or injury are recorded as diagnoses. It accounted for 22.6 percent of all OPD visits, and was followed by diseases of the respiratory system (8.7 percent).

The 20 most frequently reported principal diagnoses are shown in table 8. These are categorized at the three-digit coding level of the ICD-9-CM and accounted for more than one third (35.2 percent) of all OPD visits. The most commonly recorded diagnosis was

"Normal pregnancy," occurring at 7.9 percent of all visits.

Tests, surgical and nonsurgical procedures, and therapies

Statistics on various diagnostic tests, surgical and nonsurgical procedures, and therapies performed or ordered by hospital staff during an OPD visit are shown in table 9. Approximately three quarters of all OPD visits included one or more diagnostic or screening service. The most frequently mentioned checkbox category (item 13a) was blood pressure check, recorded at 54.4 percent of visits. Other frequently mentioned services included

Table 5. Number and percent distribution of outpatient department visits with corresponding standard errors by patient's principal reason for visit: United States, 1993

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	62,534	7,330	100.0	...
Symptom module S001-S999	24,846	3,275	39.7	1.7
General symptoms S001-S099	3,419	420	5.5	0.5
Symptoms referable to psychological/mental disorders S100-S199	2,191	428	3.5	0.6
Symptoms referable to the nervous system (excluding sense organs) S200-S259	1,565	201	2.5	0.2
Symptoms referable to the cardiovascular/lymphatic system S260-S299	187	43	0.3	0.1
Symptoms referable to the eyes and ears S300-S399	2,167	340	3.5	0.3
Symptoms referable to the respiratory system S400-S499	3,273	642	5.2	0.6
Symptoms referable to the digestive system S500-S639	2,707	381	4.3	0.3
Symptoms referable to the genitourinary system S640-S829	2,837	629	4.5	0.7
Symptoms referable to the skin, hair, and nails S830-S899	2,318	522	3.7	0.5
Symptoms referable to the musculoskeletal system S900-S999	4,182	696	6.7	0.7
Disease module D001-D999	6,078	825	9.7	0.8
Diagnostic/screening and preventive module X100-X599	12,223	1,785	19.5	1.4
Treatment module T100-T899	11,676	1,648	18.7	1.7
Injuries and adverse effects module J001-J999	2,374	397	3.8	0.4
Test results module R100-R700	777	127	1.2	0.1
Administrative module A100-A140	491	138	0.8	0.2
Other ² U990-U999	4,068	854	6.5	1.0

¹Based on *A Reason for Visit Classification for Ambulatory Care (RVC)* (7).
²Includes problems and complaints not elsewhere classified, entries of "none", blanks, and illegible entries.

other blood tests (20.5 percent) and urinalysis (13.9 percent). Readers should note that for items 8, 13, 14, 16, and 17 on the OPD Patient Record form, hospital staff were asked to check all of the applicable categories for that item. Therefore, multiple responses could be coded for each visit.

Up to six entries for tests, surgical and nonsurgical procedures, and therapies not listed in the checkbox categories were made in item 13b. Results of the open-ended responses were coded according to volume 3 of the ICD-9-CM (8). There were an estimated 33 million procedures of this type reported. Approximately two-thirds of the procedures were reported as being performed (not just ordered) during the visit. The 20 most frequently reported procedures are shown in table 10. Other individual psychotherapy, eye examinations, and Pap smears were among the most frequently mentioned procedures.

Counseling/education

Almost half (46.6 percent) of all OPD visits included some form of counseling or education either ordered or provided (table 11). "Other" counseling was recorded at one-third of visits (36.9 percent), followed by counseling on growth/development (5.3 percent of visits).

Medications/injections

Hospital staff were instructed to record all new or continued medications ordered, supplied, or administered at the visit, including prescription and nonprescription preparations, and immunizations and desensitizing agents. Up to five medications or drug mentions were coded for each visit. As used in the NHAMCS, the term "drug" is interchangeable with the term "medication". The NHAMCS drug data base permits classification by a wide range of variables, including specific drug entry name, trade name, generic class, therapeutic category, prescription or nonprescription status, federally controlled substance status, and composition status (that is, whether the drug is a single- or multiple-ingredient product). A report describing the method

Table 6. 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, 1993

Reason for visit and RVC code ¹	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits	62,534	7,330	100.0	...
Progress visit T800	6,593	1,254	10.5	1.8
Routine prenatal examination X205	3,900	818	6.2	1.0
General medical examination X100	3,140	506	5.0	0.5
Postoperative visit T205	1,394	278	2.2	0.3
Well baby examination X105	1,364	270	2.2	0.4
Stomach and abdominal pain, cramps and spasms S545	1,121	178	1.8	0.2
Cough S440	1,119	264	1.8	0.3
Skin rash S860	806	143	1.3	0.1
Fever S010	795	201	1.3	0.3
Earache or ear infection S355	728	131	1.2	0.1
Back symptoms S905	716	147	1.1	0.2
Medication, other and unspecified T115	655	122	1.0	0.1
Headcold S445	622	155	1.0	0.2
Headache, pain in head S210	620	93	1.0	0.1
Depression S110	608	143	1.0	0.2
Counseling, not otherwise stated T605	510	152	0.8	0.2
Other and unspecified diagnostic tests X370	500	215	0.8	0.3
Prophylactic inoculations X400	492	139	0.8	0.2
Hypertension D510	480	85	0.8	0.1
Knee symptoms S925	479	85	0.8	0.1
All other reasons	35,892	1,701	57.4	0.8

¹Based on A Reason for Visit Classification for Ambulatory Care (RVC) (7).

Table 7. Number and percent distribution of outpatient department visits with corresponding standard errors by principal diagnosis: United States, 1993

Principal diagnosis and ICD-9-CM code ¹	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits	62,534	7,330	100.0	...
Infectious and parasitic diseases 001-139	1,896	236	3.0	0.3
Neoplasms 140-239	3,780	813	6.0	1.0
Endocrine, nutritional and metabolic diseases and immunity disorders 240-279	2,275	382	3.6	0.4
Mental disorders 290-319	4,489	795	7.2	1.1
Diseases of the nervous system and sense organs 320-389	3,781	542	6.0	0.5
Diseases of the circulatory system 390-459	3,595	531	5.7	0.5
Diseases of the respiratory system 460-519	5,461	993	8.7	0.9
Diseases of the digestive system 520-579	2,091	299	3.3	0.4
Diseases of the genitourinary system 580-629	3,678	727	5.9	0.7
Diseases of the skin and subcutaneous tissue 680-709	2,411	580	3.9	0.6
Diseases of the musculoskeletal system and connective tissue 710-739	3,401	569	5.4	0.6
Symptoms, signs, and ill-defined conditions 780-799	3,590	386	5.7	0.3
Injury and poisoning 800-999	3,498	537	5.6	0.5
Supplementary classification V01-V82	14,156	1,784	22.6	1.5
All other diagnoses ²	*1,530	563	2.4	0.4
Unknown ³	2,902	373	4.6	0.5

¹Based on the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) (8).

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

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

and instruments used to collect and process drug information has been published (9).

Medication was used at 57.1 percent of the outpatient department visits (table 12). Hospital staff were instructed to record all new or continued medications ordered or provided at the visit, including prescription and nonprescription preparations, and immunizing and desensitizing agents. As many as five medications or drug mentions could be coded per visit.

There was a total of 75.7 million drug mentions, or an average of 1.2 drug mentions, per OPD visit. The 20 medications most frequently prescribed at OPD visits are shown in table 13 by drug entry name and therapeutic classification. The therapeutic classification is based on the therapeutic categories used in the National Drug Code Directory, 1985 edition (10). The top 20 medications account for 23 percent of all drug mentions. Tylenol was the medication most frequently prescribed, with 2.2 million mentions, or 2.9 percent of the total. It was followed by prenatal vitamins (2.5 percent) and amoxicillin (1.7 percent).

Disposition of this visit

Approximately two-thirds of OPD visits (65.6 percent) resulted in an appointment being made to return to the clinic. This and the previously mentioned finding that most OPD patients had been seen in the clinic before are indications of the continuous nature of care provided in the OPD setting. For 17.9 percent of visits, the disposition was "Return to clinic PRN" (as needed) (table 14). Only 1.5 percent of OPD visits resulted in hospital admission.

Providers seen this visit

A staff physician was seen at two-thirds of OPD visits (66.8 percent). Conversely, one-third of the visits had patients who were NOT seen by a staff physician. Registered nurses were seen at 41.8 percent of visits and residents/interns were seen at one-quarter (24.3 percent) of visits (table 15).

Table 8. Number and percent distribution of outpatient department visits by the 20 principal diagnoses most frequently rendered by hospital staff: United States, 1993

Principal diagnosis and ICD-9-CM code ¹	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits	62,534	7,330	100.0	...
Normal pregnancy V22	4,923	913	7.9	1.1
Health supervision of infant or child V20	1,876	345	3.0	0.5
Essential hypertension 401	1,732	239	2.8	0.3
General medical examination V70	1,286	242	2.1	0.3
Suppurative and unspecified otitis media 382	1,242	220	2.0	0.3
Acute upper respiratory infections of multiple or unspecified sites 465	1,234	309	2.0	0.3
Diabetes mellitus 250	1,103	191	1.8	0.2
Asthma 493	1,022	267	1.6	0.3
Neurotic disorders 300	914	219	1.5	0.3
Other postsurgical states V45	900	219	1.4	0.3
Affective psychoses 296	803	201	1.3	0.3
Malignant neoplasm of female breast 174	648	190	1.0	0.3
General symptoms 780	631	97	1.0	0.1
Other and unspecified disorders of back 724	572	155	0.9	0.2
Acute pharyngitis 462	572	127	0.9	0.2
Alcohol dependence syndrome 303	*565	233	0.9	0.3
Follow-up examination V67	525	109	0.8	0.2
Chronic sinusitis 473	503	127	0.8	0.1
Other disorders of urethra and urinary tract 599	494	112	0.8	0.2
Bronchitis, not specified as acute or chronic 490	492	106	0.8	0.1
All other diagnoses	40,497	4,762	64.8	1.5

¹Based on the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) (8)*.

Table 9. Number and percent of outpatient department visits with corresponding standard errors by selected diagnostic services performed or ordered: United States, 1993.

Selected diagnostic services performed or ordered by hospital staff	Number of visits in thousands ¹	Standard error in thousands	Percent	Standard error of percent
All visits	62,534	7,330	...	...
Blood pressure	34,013	4,012	54.4	1.9
Other blood test	12,843	1,515	20.5	1.0
Urinalysis	8,719	1,238	13.9	1.2
HIV serology ²	488	139	0.8	0.2
Spirometry	*375	122	0.6	0.2
Allergy testing	*182	75	0.3	0.1
None	14,627	1,821	23.4	1.3

¹Numbers may exceed total number of visits because more than one service may be reported per visit.

²HIV is human immunodeficiency virus.

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

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Table 10. Number and percent of outpatient department visits by the top write-in diagnostic tests, surgical and non-surgical procedures, or therapies most often performed or ordered in hospital outpatient departments: United States, 1993

Tests, surgical and non-surgical procedures and therapies and ICD-9-CM code ¹	Number of visits in thousands ²	Standard error in thousands	Percent	Standard error of percent	Percent distribution			
					Total	Performed	Ordered	Unknown ³
All visits	62,534	7,330	...	...	...	...	...	...
All visits with procedures written in	33,023	1,570	52.8	0.9	100.0	69.4	22.2	8.5
Other individual psychotherapy94.39	2,045	563	3.3	5.3	100.0	89.2	0.9	9.9
Eye examination not otherwise specified95.09	1,793	608	2.9	5.7	100.0	90.0	1.6	8.4
Pap smear91.46	1,744	379	2.8	5.7	100.0	83.0	9.1	7.9
Other nonoperative measurements and examinations89.39	1,548	526	2.5	6.1	100.0	93.3	2.2	4.5
Routine chest x ray87.44	1,386	216	2.2	6.5	100.0	55.3	34.5	10.2
Microscopic examination of specimen from female genital tract—culture91.42	1,074	209	1.7	7.4	100.0	87.1	7.4	5.6
Other mammography87.37	1,024	213	1.6	7.5	100.0	29.8	64.3	6.0
Electrocardiogram89.52	948	123	1.5	7.8	100.0	65.2	25.7	9.1
Diagnostic ultrasound of gravid uterus88.78	825	185	1.3	8.4	100.0	52.6	43.5	3.9
Microscopic examination of specimen from ear, nose, throat and larynx—culture90.32	574	130	0.9	10.1	100.0	85.9	10.8	3.3
Other diagnostic ultrasound88.79	557	185	0.9	10.3	100.0	55.5	39.3	5.2
Fetal monitoring, not otherwise specified75.34	531	267	0.8	10.5	100.0	94.9	2.1	3.0
Other physical therapy93.39	463	102	0.7	11.3	100.0	28.5	53.3	18.1
Skeletal x ray of ankle and foot88.28	375	71	0.6	12.5	100.0	73.3	19.2	7.5
Skeletal x ray of thigh, knee and lower leg88.27	357	93	0.6	12.8	100.0	74.5	19.0	6.4
Skeletal x ray of wrist and hand88.23	353	115	0.6	12.9	100.0	89.0	8.5	2.5
Gynecological examination89.26	321	89	0.5	13.6	100.0	85.0	10.6	4.4
X ray, other and unspecified88.39	310	60	0.5	13.8	100.0	73.9	19.7	6.5
Tonometry89.11	307	201	0.5	13.9	100.0	97.4	0.0	2.6
Other local excision or destruction of lesion or tissue of skin and subcutaneous tissue86.3	306	63	0.5	13.9	100.0	88.6	6.5	4.9

¹Based on the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) (8)*.

²Numbers may exceed total number of visits because more than one procedure may be reported per visit.

³Not known whether ordered or performed.

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Table 11. Number and percent of outpatient department visits with corresponding standard errors by counseling/education services: United States, 1993

Counseling/education ordered or provided by hospital staff	Number of visits in thousands ¹	Standard error in thousands	Percent	Standard error of percent
All visits	62,534	7,330	...	...
Growth/development	3,291	777	5.3	1.1
Exercise	2,954	521	4.7	0.5
Injury prevention	*1,594	489	2.5	0.6
Weight reduction	1,487	227	2.4	2.0
Smoking cessation	1,112	186	1.8	0.2
Cholesterol reduction	790	136	1.3	0.2
Other STD transmission	761	157	1.2	0.2
HIV transmission	722	166	1.2	0.2
Other	23,051	3,121	36.9	1.7
None	33,397	3,937	53.4	2.0

¹Numbers may exceed total number of visits because more than one service may be reported per visit.

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Table 12. Number and percent distribution of outpatient department visits with corresponding standard errors by number of medication codes this visit: United States, 1993

<i>Number of medication codes</i>	<i>Number of visits in thousands</i>	<i>Standard error in thousands</i>	<i>Percent distribution</i>	<i>Standard error of percent</i>
All visits	62,534	7330	100.0	...
None	26,812	3716	42.9	1.9
1	16,002	1983	25.6	1.0
2	9,118	1080	14.6	0.7
3	4,456	530	7.1	0.4
4	2,628	318	4.2	0.4
5 or more	3,518	489	5.6	0.6

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Table 13. Number and percent distribution for the 20 drugs most frequently prescribed at outpatient department visits with corresponding standard errors, by entry name of drug: United States, 1993

<i>Entry name of drug¹</i>	<i>Number of drug mentions in thousands</i>	<i>Standard error in thousands</i>	<i>Percent distribution</i>	<i>Standard error of percent</i>	<i>Therapeutic classification²</i>
All drug mentions.	75,710	3,781	100.0	...	
Tylenol	2,191	326	2.9	0.4	General analgesics
Prenatal vitamins	1,879	586	2.5	0.8	Vitamins, minerals
Amoxicillin	1,307	227	1.7	0.3	Penicillins
Diphtheria & tetanus toxoids with pertussis vaccine	934	173	1.2	0.3	Vaccines and antiserums
Motrin	879	148	1.2	0.2	Antiarthritics
Poliomyelitis vaccine	873	170	1.2	0.3	Vaccines and antiserums
Lasix	795	126	1.1	0.1	Diuretics
Prednisone	743	119	1.0	0.2	Adrenal corticosteroids
Zantac	739	109	1.0	0.1	Agents used in disorders of upper GI tract
Bactrim	721	163	1.0	0.2	Antimicrobials
Procardia	698	84	0.9	0.1	Antianginal agents
Iron preparation	685	211	0.9	0.3	Agents used to treat deficiency anemias
Ventolin	682	129	0.9	0.2	Bronchodilators, antiasthmatics
Proventil	657	141	0.9	0.2	Bronchodilators, antiasthmatics
Hepatitis B	657	127	0.9	0.2	Vaccines and antiserums
Haemophilus B conjugate vaccine	656	139	0.9	0.2	Vaccines and antiserums
Vasotec	616	85	0.8	0.1	Antihypertensive agents
Influenza virus vaccine	597	161	0.8	0.2	Vaccines and antiserums
Synthroid	555	92	0.7	0.1	Agents used to treat thyroid disease
Vitamins	550	229	0.7	0.3	Vitamins, minerals
All other	58,296	2,930	77.0	0.6	

¹The entry made by the hospital staff on the prescription or other medical records. This may be a trade name, generic name, or desired therapeutic effect.²Therapeutic classification is based on the *National Drug Code Directory*, 1985 Edition (10). In cases where a drug had more than one therapeutic use, it was listed in the category that occurred with the greatest frequency.

Table 14. Number and percent of outpatient department visits with corresponding standard errors by disposition of visit: United States, 1993

<i>Disposition</i>	<i>Number of visits in thousands¹</i>	<i>Standard error in thousands</i>	<i>Percent</i>	<i>Standard error of percent</i>
All visits	62,534	7,330	...	...
Return to clinic - appointment	41,017	4,746	65.6	1.9
Return to clinic PRN ²	11,183	1,933	17.9	1.4
Refer to other physician/clinic	4,625	595	7.4	0.8
No follow-up planned	2,805	483	4.5	0.5
Return to referring physician	2,463	559	3.9	0.8
Telephone follow-up planned	2,079	584	3.3	0.8
Admit to hospital	921	179	1.5	0.2
Other	2,058	334	3.3	0.4

¹Numbers may exceed total number of visits because more than one disposition may be reported per visit.

²PRN is as needed.

Table 15. Number and percent of outpatient department visits with corresponding standard errors by type of provider seen: United States, 1993

<i>Type of provider</i>	<i>Number of visits in thousands¹</i>	<i>Standard error in thousands</i>	<i>Percent</i>	<i>Standard error of percent</i>
All visits	62,534	7,330	...	...
Staff physician	41,786	5,720	66.8	2.4
Registered nurse	26,155	2,567	41.8	3.3
Resident/Intern	15,223	2,383	24.3	2.2
Licensed practical nurse	*6,770	2,186	10.8	2.6
Nurse's aide	5,254	998	8.4	1.3
Physician assistant/Nurse practitioner	4,547	892	7.3	1.0
Other physician	2,145	555	3.4	0.8
Other	11,053	2106	17.7	2.2

¹Numbers may exceed total number of visits because more than one provider may be reported per visit.

Symbols

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

Technical notes

Source of data and sample design

The information presented in this report is based on data collected in the 1993 National Hospital Ambulatory Medical Care Survey (NHAMCS) from December 28, 1992 through December 26, 1993. The data were adjusted to produce annual estimates.

The target universe of NHAMCS includes in-person visits made in the United States by patients to emergency departments (ED's) and outpatient departments (OPD's) of non-Federal, short-stay hospitals (hospitals with average length of stays for all patients of fewer than 30 days) or those whose specialty is general (medical or surgical) or children's general. The NHAMCS sampling frame consists of hospitals listed in the April 1991 SMG Hospital Database.

A four-stage probability sample design is used in NHAMCS. The design includes samples of primary sampling units (PSU's), hospitals within PSU's, ED's within hospitals and/or clinics within outpatient departments (OPD's), and patient visits within ED's and/or clinics. The PSU sample consists of 112 PSU's comprising a probability subsample of the PSU's used in the 1985-94 National Health Interview Survey. The hospital sample for 1993 consisted of 489 hospitals. Of this group, 445 hospitals had either an ED or OPD in 1993 to make them in scope or eligible for the survey. During this period, 94 percent of the in-scope hospitals participated. Based on the induction interview, 228 of the sample hospitals had OPD's. Hospital staff were asked to complete Patient Record forms (figure 1) for a systematic random sample of patient visits occurring during a randomly assigned 4-week reporting period. The number of Patient Record forms completed for OPD's was 28,357.

Characteristics of the hospital, such as ownership and expected number of OPD visits, were obtained from the hospital administrator during an induction interview. The U.S. Bureau of the Census, Housing Surveys Branch, was responsible for the survey's data collection. Data processing operations

and medical coding were performed by Analytical Sciences Inc., Durham, North Carolina.

Sampling errors

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

The standard errors used in this report (including tests of significance) were approximated using SUDAAN software. SUDAAN computes standard errors by using a first-order Taylor approximation of the deviation of estimates from their expected values. A description of the software and the approach it uses has been published (11). Standard errors for all estimates are presented in each table. The relative standard error (RSE) of an estimate is obtained by dividing the standard error by the estimate itself. The result is then expressed as a percent of the estimate.

Approximate relative standard errors for aggregate estimates may be calculated using the following general formula, where x is the aggregate of interest in thousands, and A and B are the appropriate coefficients from table I.

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

Similarly, relative standard errors for an estimate of a percent may be calculated using the following general formula, where p is the percent of interest, expressed as a proportion, and x is the denominator of the percent in thousands, using the appropriate coefficients from table I.

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

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

Table I. Coefficients appropriate for determining relative standards errors: National Hospital Ambulatory Medical Care Survey, 1993

Type of estimate	Coefficient for use with estimates in thousands	
	A	B
Visits	0.02082	5.924262
Drug mentions . . .	0.02387	8.128418

Adjustments for hospital nonresponse

Estimates from NHAMCS data were adjusted to account for sample hospitals that were in scope but did not participate in the study. This adjustment was calculated to minimize the impact of response on final estimates by imputing to nonresponding hospitals data from visits to similar hospitals. For this purpose, hospitals were judged similar if they were in the same region, ownership control group, and metropolitan statistical area control group.

Adjustments for ED/clinic nonresponse

Estimates from NHAMCS data were adjusted to account for ED's and sample clinics that were in scope but did not participate in the study. This adjustment was calculated to minimize the impact of nonresponse on final estimates by imputing to nonresponding ED's or clinics data from visits to similar ED's or clinics. For this purpose, ED's or clinics were judged similar if they were in the same ED or clinic group.

Test of significance and rounding

The determination of statistical inference is based on the t -test. The Bonferroni inequality was used to establish the critical value for statistically significant differences (0.05 level of significance over all analyses performed on estimates contained in a table). Terms relating to differences such as "higher than" indicate that the difference is statistically significant. A lack of comment regarding the

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

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

Definition of terms

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

Hospital—All hospitals with an average length of stay for all patients of

less than 30 days (short-stay) or hospital whose specialty is general (medical or surgical) or children's general. Federal hospitals, hospital units of institutions, and hospitals with less than six beds staffed for patient use are excluded.

Emergency department—Hospital facility for the provision of unscheduled outpatient services to patients whose conditions require immediate care and that is staffed 24 hours a day. If an ED provided emergency services in different areas of the hospital, then all these areas were selected with certainty into the sample. Off-site emergency departments open less than 24 hours are included if staffed by the hospital's emergency department.

Outpatient department—Hospital facility where nonurgent ambulatory

medical care is provided under the supervision of a physician.

Clinic—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 excluded from the NHAMCS: ambulatory surgical centers, chemotherapy, employee health service, renal dialysis, methadone maintenance, and radiology.

Visit—A direct, personal exchange between a patient and a physician or other health care provider working under the physician's supervision, for the purpose of seeking care and receiving personal health services.

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Advance Data No. 268 Errata Sheet

Please insert this sheet in your copy of *National Hospital Ambulatory Medical Care Survey: 1993 outpatient department summary*.

Page	Correction
2	Delete items 1 and 2 from the Patient Record form.
3	Table 1: American Indian/Eskimo/Aleut, Standard error in thousands: 53 [not 534]
9	Table 13: Vitamins, Number of drug mentions in thousands: *550 [not 550]
11	Paragraph 3 under "Source of data . . .": Change "Based on the induction interview, [228] of the sample hospitals . . ." to "Based on the induction interview, 255 of the sample hospitals . . ."

Suggested citation

Lipkind KL. National Hospital Ambulatory Medical Care Survey: 1993 outpatient department summary. Advance data from vital and health statistics; no 268. Hyattsville, Maryland: National Center for Health Statistics. 1995.

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