

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: 1994 Outpatient Department Summary

by Karen L. Lipkind, M.Ed., Division of Health Care Statistics

Introduction

During the 12-month period January–December 1994, an estimated 66.3 million visits were made to outpatient departments (OPD's) of non-Federal, short-stay and general hospitals in the United States—25.6 visits per 100 persons. This was not significantly different from the 1993 rate of 24.6 visits per 100 persons.

This report presents data on outpatient department visits from the 1994 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. Another *Advance Data*

report highlights visits to emergency departments (1). Data from the 1992 and 1993 NHAMCS have also been published (2–7).

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 found at the end of this report include a brief overview of the sample design used in the 1994 NHAMCS and an explanation of sampling errors. A detailed description of the NHAMCS sample design and survey methodology has been published (8).

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

Data highlights

- In 1994, 66.3 million visits were made to hospital outpatient departments—about 25.6 visits per 100 persons.

- Females had a higher OPD visit rate than males did.
- The visit rate for black persons was significantly higher than for white persons overall and in all age categories except under 15 years and 75 years and over.
- Medicaid and private/commercial insurance were the most frequently mentioned expected sources of payment.
- Progress visit, general medical examination, and routine prenatal examination were the most frequently mentioned reasons for visit.
- The most frequent diagnoses were normal pregnancy, essential hypertension, and diabetes mellitus.
- Routine chest x ray and pap smear were among the procedures most often reported.
- Sixty-five percent of OPD visits resulted in an appointment for a return visit.

Patient characteristics

OPD visits by patient's age, sex, and race are shown in [table 1](#). Overall, visit rates did not differ significantly by age. Females made 61.2 percent of all OPD visits and had a higher visit rate (30.5 visits per 100 persons) than males (20.4 visits per 100 persons). Visit rates



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Centers for Disease Control and Prevention
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Department of Health and Human Services
Public Health Service, Centers for Disease Control
National Center for Health Statistics

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

<p>3. DATE OF VISIT</p> <p>____/____/____ Month Day Year</p>	<p>5. SEX</p> <p>1 <input type="checkbox"/> Female</p> <p>2 <input type="checkbox"/> Male</p>	<p>6. RACE</p> <p>1 <input type="checkbox"/> White</p> <p>2 <input type="checkbox"/> Black</p> <p>3 <input type="checkbox"/> Asian / Pacific Islander</p> <p>4 <input type="checkbox"/> American Indian / Eskimo / Aleut</p>	<p>7. ETHNICITY</p> <p>1 <input type="checkbox"/> Hispanic origin</p> <p>2 <input type="checkbox"/> Not Hispanic</p>	<p>8. EXPECTED SOURCE(S) OF PAYMENT <i>(Check all that apply)</i></p> <p>1 <input type="checkbox"/> Private / commercial 5 <input type="checkbox"/> HMO/ other prepaid</p> <p>2 <input type="checkbox"/> Medicare 6 <input type="checkbox"/> Patient paid</p> <p>3 <input type="checkbox"/> Medicaid 7 <input type="checkbox"/> No charge</p> <p>4 <input type="checkbox"/> Other government 8 <input type="checkbox"/> Other</p>	<p>9. WAS PATIENT REFERRED FOR THIS VISIT BY ANOTHER PHYSICIAN?</p> <p>1 <input type="checkbox"/> Yes</p> <p>2 <input type="checkbox"/> No</p>																			
<p>4. DATE OF BIRTH</p> <p>____/____/____ Month Day Year</p>																								
<p>10. PATIENT'S COMPLAINT(S), SYMPTOM(S), OR OTHER REASON(S) FOR THIS VISIT <i>(In patient's own words)</i></p> <p>a. Most important:</p> <p>_____</p> <p>b. Other:</p> <p>_____</p> <p>c. Other:</p> <p>_____</p>				<p>11. PHYSICIAN'S DIAGNOSES</p> <p>a. Principal diagnosis / problem associated with item 10.a:</p> <p>_____</p> <p>b. Other:</p> <p>_____</p> <p>c. Other:</p> <p>_____</p>		<p>12. HAS PATIENT BEEN SEEN IN THIS CLINIC BEFORE</p> <p>1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No</p> <p style="text-align: center;">↓</p> <p>If yes, for the condition in item 11a?</p> <p>1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No</p>																		
<p>13. TESTS, SURGICAL AND NONSURGICAL PROCEDURES, AND THERAPIES None <input type="checkbox"/></p> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:30%; vertical-align: top;"> <p>a. SELECTED SERVICES <i>(Check all ordered or provided)</i></p> <p>1 <input type="checkbox"/> Blood pressure</p> <p>2 <input type="checkbox"/> Urinalysis</p> <p>3 <input type="checkbox"/> Spirometry</p> <p>4 <input type="checkbox"/> Allergy testing</p> <p>5 <input type="checkbox"/> HIV serology</p> <p>6 <input type="checkbox"/> Other blood test</p> </td> <td style="width:30%; vertical-align: top;"> <p>b. ALL OTHER SERVICES</p> <p>Include:</p> <ul style="list-style-type: none"> • Tests • Surgeries and other procedures • Other therapies (such as contact lenses, psychotherapy, or physiotherapy) <p>Exclude:</p> <ul style="list-style-type: none"> • Services in item 13a • Counseling / education • Medications <p><i>(Record one on each line and check performed or ordered for each.)</i></p> </td> <td style="width:30%; vertical-align: top;"> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;"></td> <td style="width:50%; text-align: center;">Performed Ordered</td> </tr> <tr> <td>1 _____</td> <td style="text-align: center;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> </tr> <tr> <td>2 _____</td> <td style="text-align: center;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> </tr> <tr> <td>3 _____</td> <td style="text-align: center;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> </tr> <tr> <td>4 _____</td> <td style="text-align: center;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> </tr> <tr> <td>5 _____</td> <td style="text-align: center;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> </tr> <tr> <td>6 _____</td> <td style="text-align: center;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> </tr> </table> </td> </tr> </table>						<p>a. SELECTED SERVICES <i>(Check all ordered or provided)</i></p> <p>1 <input type="checkbox"/> Blood pressure</p> <p>2 <input type="checkbox"/> Urinalysis</p> <p>3 <input type="checkbox"/> Spirometry</p> <p>4 <input type="checkbox"/> Allergy testing</p> <p>5 <input type="checkbox"/> HIV serology</p> <p>6 <input type="checkbox"/> Other blood test</p>	<p>b. ALL OTHER SERVICES</p> <p>Include:</p> <ul style="list-style-type: none"> • Tests • Surgeries and other procedures • Other therapies (such as contact lenses, psychotherapy, or physiotherapy) <p>Exclude:</p> <ul style="list-style-type: none"> • Services in item 13a • Counseling / education • Medications <p><i>(Record one on each line and check performed or ordered for each.)</i></p>	<table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;"></td> <td style="width:50%; text-align: center;">Performed Ordered</td> </tr> <tr> <td>1 _____</td> <td style="text-align: center;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> </tr> <tr> <td>2 _____</td> <td style="text-align: center;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> </tr> <tr> <td>3 _____</td> <td style="text-align: center;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> </tr> <tr> <td>4 _____</td> <td style="text-align: center;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> </tr> <tr> <td>5 _____</td> <td style="text-align: center;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> </tr> <tr> <td>6 _____</td> <td style="text-align: center;">1 <input type="checkbox"/> 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"/>	<p>14. COUNSELING/EDUCATION <i>(Check all ordered or provided)</i></p> <p>1 <input type="checkbox"/> None</p> <p>2 <input type="checkbox"/> Exercise</p> <p>3 <input type="checkbox"/> Cholesterol reduction</p> <p>4 <input type="checkbox"/> Weight reduction</p> <p>5 <input type="checkbox"/> Smoking cessation</p> <p>6 <input type="checkbox"/> Growth / development</p> <p>7 <input type="checkbox"/> Injury prevention</p> <p>8 <input type="checkbox"/> HIV transmission</p> <p>9 <input type="checkbox"/> Other STD transmission</p> <p>10 <input type="checkbox"/> Other</p>	
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<p>15. MEDICATIONS / INJECTIONS None <input type="checkbox"/></p> <p>Include:</p> <ul style="list-style-type: none"> <li style="width: 33%;">• Rx and OTC <li style="width: 33%;">• Meds ordered, supplied, or administered <li style="width: 33%;">• New meds <li style="width: 33%;">• Immunizations <li style="width: 33%;">• Allergy shots <li style="width: 33%;">• Anesthetics <li style="width: 33%;">• Continuing meds (with or without new orders) <p>1 _____</p> <p>2 _____</p> <p>3 _____</p> <p>4 _____</p> <p>5 _____</p>			<p>16. DISPOSITION THIS VISIT <i>(Check all that apply)</i></p> <p>1 <input type="checkbox"/> No follow-up planned</p> <p>2 <input type="checkbox"/> Return to clinic PRN</p> <p>3 <input type="checkbox"/> Return to clinic - appointment</p> <p>4 <input type="checkbox"/> Telephone follow-up planned</p> <p>5 <input type="checkbox"/> Return to referring physician</p> <p>6 <input type="checkbox"/> Refer to other physician/clinic</p> <p>7 <input type="checkbox"/> Admit to hospital</p> <p>8 <input type="checkbox"/> Other <i>(Specify)</i></p>		<p>17. PROVIDERS SEEN THIS VISIT <i>(Check all that apply)</i></p> <p>1 <input type="checkbox"/> Resident/Intern</p> <p>2 <input type="checkbox"/> Staff physician</p> <p>3 <input type="checkbox"/> Other physician</p> <p>4 <input type="checkbox"/> Physician assistant/ Nurse practitioner</p> <p>5 <input type="checkbox"/> Registered nurse</p> <p>6 <input type="checkbox"/> Licensed practical nurse</p> <p>7 <input type="checkbox"/> Nurse's aide</p> <p>8 <input type="checkbox"/> Other <i>(Specify)</i></p>																			

Figure 1. Patient Record form.

Table 1. Number, percent distribution, and annual rate of outpatient department visits with corresponding standard errors by selected patient and visit characteristics: United States, 1994

<i>Selected patient and visit 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	66,345	7,969	100.0	...	25.6	3.1
<i>Age</i>						
Under 15 years	13,516	1,726	20.4	1.9	22.9	2.9
15–24 years	7,834	977	11.8	0.6	21.7	2.7
25–44 years	19,815	2,362	29.9	1.0	23.9	2.8
45–64 years	14,306	1,880	21.6	1.0	28.4	3.7
65–74 years	5,955	1,075	9.0	0.7	32.6	5.9
75 years and over	4,920	1,177	7.4	1.1	38.5	9.2
<i>Sex and age</i>						
Female	40,599	4,957	61.2	0.8	30.5	3.7
Under 15 years	6,516	826	9.8	0.9	22.6	2.9
15–24 years	5,817	729	8.8	0.6	32.3	4.0
25–44 years	12,699	1,629	19.1	0.8	30.2	3.9
45–64 years	8,837	1,201	13.3	0.6	33.9	4.6
65–74 years	3,521	607	5.3	0.4	34.7	6.0
75 years and over	3,209	794	4.8	0.8	40.4	10.0
Male	25,746	3,092	38.8	0.8	20.4	2.4
Under 15 years	7,000	920	10.6	1.0	23.1	3.0
15–24 years	2,017	331	3.0	0.3	11.1	1.8
25–44 years	7,116	842	10.7	0.6	17.4	2.1
45–64 years	5,468	717	8.2	0.5	22.5	2.9
65–74 years	2,435	496	3.7	0.4	30.0	6.1
75 years and over	1,710	413	2.6	0.4	35.5	8.6
<i>Race and age</i>						
White	49,701	6,890	74.9	2.6	23.2	3.2
Under 15 years	9,721	1,360	14.7	1.5	20.8	2.9
15–24 years	5,725	852	8.6	0.6	20.0	3.0
25–44 years	14,777	2,035	22.3	1.1	21.6	3.0
45–64 years	10,663	1,581	16.1	0.9	24.7	3.7
65–74 years	4,756	977	7.2	0.8	29.4	6.0
75 years and over	4,058	1,094	6.1	1.1	35.1	9.5
Black	15,132	2,019	22.8	2.4	45.8	6.1
Under 15 years	3,404	522	5.1	0.7	35.6	5.5
15–24 years	1,969	285	3.0	0.4	36.4	5.3
25–44 years	4,576	655	6.9	0.8	43.9	6.3
45–64 years	3,284	498	4.9	0.6	64.0	9.7
65–74 years	1,100	224	1.7	0.3	70.8	14.4
75 years and over	799	230	1.2	0.3	82.3	23.7
<i>All other races</i>						
Asian/Pacific Islander	1,283	196	1.9	0.3	---	---
American Indian/Eskimo/Aleut	228	68	0.3	0.1	---	---
<i>Geographic region</i>						
Northeast	19,685	3,505	29.7	4.6	38.9	6.9
Midwest	23,888	6,488	36.0	6.3	37.8	10.3
South	15,287	2,676	23.0	3.8	17.4	3.0
West	7,485	1,400	11.3	2.2	13.0	2.4

... Category not applicable.

--- Data not available.

¹Based on U.S. Bureau of the Census estimates of the civilian, noninstitutionalized population of the United States as of July 1, 1994.

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

were higher for females than for males in the age groups between 15 and 44 years, but were not significantly different for those under 15 years, 45–64 years, 65–74 years, or 75 years and over (figure 2).

White persons made three-quarters (74.9 percent) of all OPD visits, with black persons and Asian/Pacific Islanders accounting for 22.8 percent and 1.9 percent, respectively. The visit

rate for black persons was significantly higher than for white persons overall and in all age categories except under 15 years and 75 years and over (figure 3).

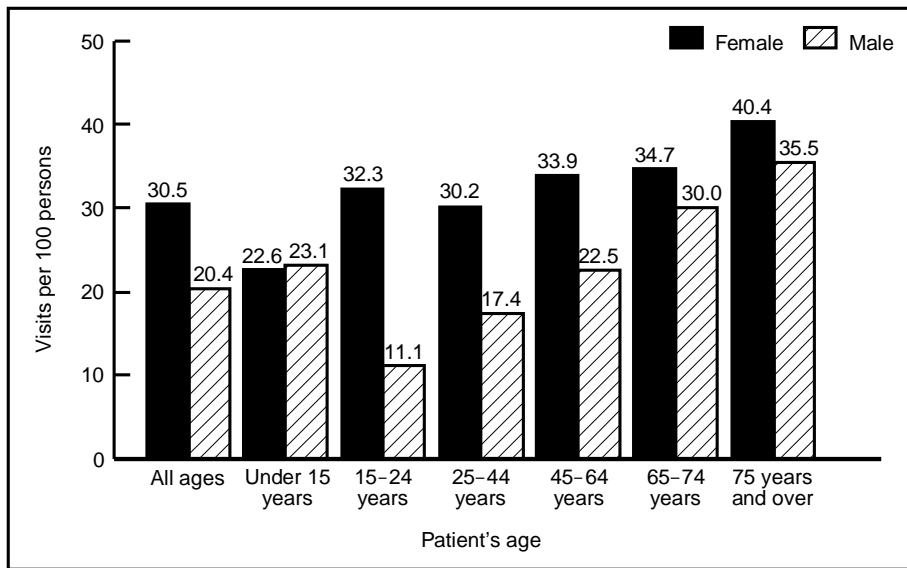


Figure 2. Annual rate of outpatient department visits by patient's age and sex: United States 1994

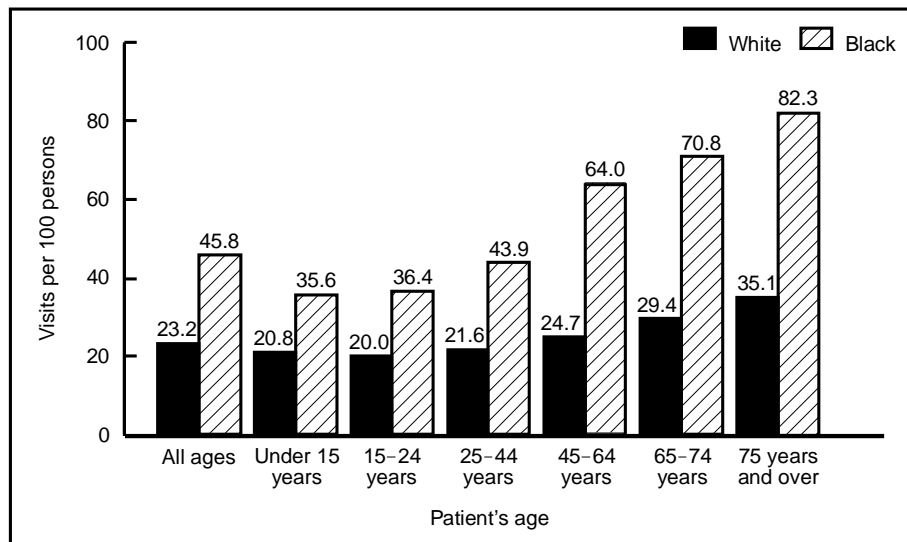


Figure 3. Annual rate of outpatient department visits by patient's age and race: United States, 1994

Visit characteristics

Geographic region

Visit rates in the Northeast (38.9 visits per 100 persons) were higher than those in the South (17.4 visits per 100 persons) and in the West (13.0 visits per 100 persons). There was no significant difference in the proportion of OPD visits by region.

Clinic type

A clinic was defined as an administrative unit of the outpatient department 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

Table 2. Number and percent distribution of outpatient department visits with corresponding standard errors by clinic type: United States, 1994

Clinic type	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits	66,345	7,969	100.0	...
General medicine	35,305	5,395	53.2	3.3
Surgery	11,122	1,887	16.8	1.8
Obstetrics and gynecology	7,253	1,312	10.9	1.3
Pediatrics	7,100	1,246	10.7	1.8
Other	5,565	781	8.4	0.3

... Category not applicable.

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

physician services were not typically provided, were out of scope for the survey. In addition, ambulatory surgery centers were out of scope because they are included in the National Survey of Ambulatory Surgery.

Clinics were classified into five types as presented in table 2. More than half of all OPD visits (53.2 percent) were made to general medicine clinics that included internal medicine and primary care clinics. Surgery, obstetrics and gynecology, and pediatric clinics accounted for 16.8 percent, 10.9 percent, and 10.7 percent of visits, respectively. The "other" clinic category, which included such clinics as psychiatry and neurology, accounted for 8.4 percent of visits.

Expected sources of payment

Data on expected sources of payment are shown in table 3. Hospital staff were asked to check all the applicable payment categories for this survey item. The result was that multiple payment sources could be coded for each visit. (Readers should also note that multiple responses could be checked for items 13, 14, 16, and 17 on the OPD Patient Record form). The "patient paid" category includes the patient's contribution toward "copayments" and "deductibles."

Expected sources of payment were most often Medicaid (30.2 percent), private/commercial insurance (27.8 percent), and Medicare (17.9 percent). HMO/other prepaid and patient paid were indicated at 11.6 and 11.0 percent of OPD visits, respectively.

Referral status and prior visit status

Approximately one-fifth (20.7 percent) of OPD visits were made

Table 3. Number and percent of outpatient department visits with corresponding standard errors by patient's expected source(s) of payment: United States, 1994

Expected source(s) of payment	Number of visits in thousands ¹	Standard error in thousands	Percent	Standard error of percent
All visits	66,345	7,969	...	...
Medicaid	20,029	2,434	30.2	2.9
Private/commercial insurance	18,411	3,591	27.8	2.8
Medicare	11,867	2,212	17.9	1.6
HMO/other prepaid ²	7,680	1,995	11.6	2.4
Patient paid	7,323	1,138	11.0	1.2
Other government	2,342	477	3.5	0.6
No charge	*923	494	1.4	0.7
Other	3,559	673	5.4	0.7
Unspecified	2,521	681	3.8	0.8

... Category not applicable.

* Figure does not meet standard of reliability or precision.

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

²HMO is health maintenance organization.

Table 4. Number and percent distribution of outpatient department visits with corresponding standard errors by referral status and prior visit status: United States, 1994

Visit characteristic	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits	66,345	7,969	100.0	...
Referral status				
Not referred by another physician.	52,611	6,608	79.3	2.1
Referred by another physician.	13,734	2,127	20.7	2.1
Prior visit status				
Old patient.	52,180	6,415	78.6	1.2
Old problem	42,258	5,135	63.7	1.4
New problem	9,922	1,478	15.0	1.0
New patient	14,165	1,808	21.4	1.2

... Category not applicable.

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

as the result of a referral from another physician (table 4). More than three-quarters of the OPD visits (78.6 percent) were made by patients who had been seen in the clinic on a previous occasion, and almost two-thirds (63.7 percent) of all visits were made by persons who were returning to the clinic for care of a previously treated problem. About one-fifth (21.4 percent) of visits were made by new patients, that is, patients who had not been previously seen in that clinic.

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) (9). 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 in the symptom module with musculoskeletal symptoms accounting for 7.7 percent of the visits. The treatment module (20.9 percent) and the diagnostic, screening, and preventive module (17.0 percent) were also prominent.

The 20 most frequently mentioned principal reasons for visit, representing 42.8 percent of all visits, are shown in table 6. Progress visit, classified in the

treatment module and generally denoting routine followup of an unspecified problem, was the most frequently mentioned principal reason for visit (12.3 percent). This was followed by general medical examination (5.2 percent) and routine prenatal examination (4.6 percent). The most frequently mentioned reasons related to a symptomatic problem were skin rash (2.0 percent) and cough (1.8 percent). It should be noted that estimates differing in ranked order may not be significantly different from each other.

Principal diagnosis

The principal diagnosis or problem associated with the patient's most important reason for visit as well as any other significant current diagnoses are recorded in item 11 of the Patient Record form. Up to three diagnoses are coded and classified according to the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM) (10). Displayed in table 7 are OPD visits by principal diagnosis using the major disease categories specified by the ICD-9-CM. The supplementary classification, used for diagnoses other than disease or injury (for example, general medical examination), accounted for 19.8 percent of all OPD visits, followed by diseases of the respiratory system (8.9 percent), mental disorders (7.6 percent), and diseases of the nervous system and sense organs (7.1 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 about one-third (34.6 percent) of all OPD visits. The most commonly recorded diagnoses were normal pregnancy (5.4 percent of visits), essential hypertension (3.4 percent), and diabetes mellitus (2.4 percent).

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 displayed in table 9.

Table 5. Number and percent distribution of outpatient department visits with corresponding standard errors by patient's principal reason for visit: United States, 1994

<i>Principal reason for visit and RVC code¹</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	66,345	7,969	100.0	...
Symptom module. S001-S999	26,131	3,405	39.4	1.6
General symptoms S001-S099	3,398	623	5.1	0.5
Symptoms referable to psychological/mental disorders S100-S199	2,269	564	3.4	0.8
Symptoms referable to the nervous system (excluding sense organs) S200-S259	1,415	247	2.1	0.2
Symptoms referable to the cardiovascular/lymphatic system S260-S299	253	63	0.4	0.1
Symptoms referable to the eyes and ears S300-S399	2,226	326	3.4	0.3
Symptoms referable to the respiratory system S400-S499	3,267	497	4.9	0.3
Symptoms referable to the digestive system. S500-S639	2,605	364	3.9	0.3
Symptoms referable to the genitourinary system S640-S829	2,374	399	3.6	0.4
Symptoms referable to the skin, hair, and nails S830-S899	3,234	605	4.9	0.7
Symptoms referable to the musculoskeletal system S900-S999	5,089	945	7.7	1.0
Disease module D001-D999	6,364	948	9.6	0.9
Diagnostic/screening and preventive module X100-X599	11,252	1,388	17.0	1.0
Treatment module T100-T899	13,891	2,275	20.9	2.1
Injuries and adverse effects module J001-J999	2,623	501	4.0	0.6
Test results module R100-R700	1,066	224	1.6	0.2
Administrative module. A100-A140	*516	163	0.8	0.2
Other ² U990-U999	4,502	988	6.8	1.1

... Category not applicable.

* Figure does not meet standard of reliability or precision.

¹Based on *A Reason for Visit Classification for Ambulatory Care (RVC)* (9).

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

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

Table 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, 1994

<i>Principal reason for visit and RVC code¹</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	66,345	7,969	100.0	...
Progress visit T800	8,170	1,876	12.3	2.1
General medical examination X100	3,450	518	5.2	0.4
Routine prenatal examination X205	3,034	503	4.6	0.6
Postoperative visit T205	1,355	308	2.0	0.3
Skin rash. S860	1,226	289	1.8	0.4
Cough S440	1,158	219	1.7	0.2
Well-baby examination X105	1,107	172	1.7	0.3
Back symptoms. S905	957	226	1.4	0.3
Stomach and abdominal pain, cramps, and spasms S545	899	107	1.4	0.2
Earache or ear infection S355	865	151	1.3	0.2
Fever S010	813	181	1.2	0.2
Depression S110	790	235	1.2	0.3
Psychotherapy T410	*616	337	0.9	0.5
Postpartum examination X215	*606	423	0.9	0.6
Counseling, not otherwise stated T605	603	114	0.9	0.1
Headache, pain in head S210	589	87	0.9	0.1
Chest pain and related symptoms S050	562	157	0.8	0.2
Medication, other and unspecified T115	545	95	0.8	0.1
Low back symptoms. S910	*536	180	0.8	0.2
Leg symptoms S920	521	85	0.8	0.1
All other reasons.	37,943	5,188	57.2	0.5

... Category not applicable.

* Figure does not meet standard of reliability or precision.

¹Based on *A Reason for Visit Classification for Ambulatory Care (RVC)* (9).

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

Approximately three-quarters of all OPD visits included one or more of these services. The most frequently mentioned check box category (item 13a) was "blood pressure check," recorded at 53.6 percent of visits. Other frequently

mentioned services included "other blood test" (19.4 percent) and "urinalysis" (13.4 percent).

Up to six tests, surgical and nonsurgical procedures, and therapies other than those listed in the six check

box categories on the Patient Record form were recorded by hospital staff in item 13b. Results of these open-ended responses were coded according to the *International Classification of Diseases, 9th Revision, Clinical Modification*

Table 7. Number and percent distribution of outpatient department visits with corresponding standard errors by principal diagnosis: United States, 1994

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	66,345	7,969	100.0	...
Infectious and parasitic diseases 001-139	2,445	375	3.7	0.4
Neoplasms. 140-239	3,093	724	4.7	0.8
Endocrine, nutritional and metabolic diseases, and immunity disorders. 240-279	3,392	573	5.1	0.6
Mental disorders 290-319	5,068	910	7.6	1.3
Diseases of the nervous system and sense organs. 320-389	4,690	717	7.1	0.7
Diseases of the circulatory system 390-459	4,193	736	6.3	0.6
Diseases of the respiratory system 460-519	5,894	965	8.9	0.7
Diseases of the digestive system 520-579	1,860	284	2.8	0.3
Diseases of the genitourinary system 580-629	3,207	591	4.8	0.5
Diseases of the skin and subcutaneous tissue. 680-709	3,372	720	5.1	0.8
Diseases of the musculoskeletal system and connective tissue 710-739	3,719	747	5.6	0.8
Symptoms, signs, and ill-defined conditions 780-799	4,246	546	6.4	0.4
Injury and poisoning 800-999	4,183	643	6.3	0.6
Supplementary classification. V01-V82	13,160	1,529	19.8	1.1
All other diagnoses ²	1,882	279	2.8	0.2
Unknown ³	1,941	287	2.9	0.2

... Category not applicable.

¹Based on the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM) (10).

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.

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

Table 8. Number and percent distribution of outpatient department visits by the 20 principal diagnoses most frequently rendered by hospital staff: United States, 1994

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	66,345	7,969	100.0	...
Normal pregnancy V22	3,584	525	5.4	0.6
Essential hypertension 401	2,278	463	3.4	0.5
Diabetes mellitus 250	1,587	276	2.4	0.3
Health supervision of infant or child V20	1,542	263	2.3	0.4
General medical examination V70	1,532	367	2.3	0.4
Suppurative and unspecified otitis media 382	1,226	199	1.8	0.3
Acute upper respiratory infections of multiple or unspecified sites 465	1,102	180	1.7	0.2
Affective psychoses 296	1,070	222	1.6	0.3
Asthma 493	1,009	193	1.5	0.2
Special investigations and examinations V72	975	182	1.5	0.2
Followup examination V67	861	183	1.3	0.2
Other postsurgical states V45	765	127	1.2	0.2
Other ill-defined and unknown causes of morbidity and mortality 799	745	125	1.1	0.1
General symptoms. 780	709	123	1.1	0.1
Neurotic disorders 300	696	127	1.0	0.2
Contact dermatitis and other eczema 692	673	175	1.0	0.2
Other disorders of soft tissues. 729	*673	285	1.0	0.4
Other disorders of urethra and urinary tract. 599	663	173	1.0	0.2
Postpartum care and examination V24	*652	477	1.0	0.7
Acute pharyngitis. 462	629	128	0.9	0.2
All other diagnoses	43,374	5,927	65.4	0.5

... Category not applicable.

* Figure does not meet standard of reliability or precision.

¹Based on the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM) (10).

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

(ICD-9-CM), Volume 3, Procedures Classification. There were an estimated 34 million procedures performed or ordered at OPD visits. The 20 most frequently reported procedures are

shown in table 10. "Routine chest x ray" and "Pap smear" were among the most frequently mentioned procedures. "Eye examination not otherwise specified" was the most frequently

mentioned procedure. However, the estimate has a very high standard error associated with it. This is probably because of the high degree of clustering of sample clinics specializing in eye care.

Table 9. Number and percent of outpatient department visits with corresponding standard errors by number of services and selected services ordered or provided: United States, 1994

<i>Number of services and selected services</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	66,345	7,969	100.0	...
Number of services¹				
None	16,158	1,838	24.4	1.5
1	25,136	3,318	37.9	1.4
2	14,365	2,000	21.7	0.8
3	6,365	900	9.6	0.6
4	2,695	464	4.1	0.4
5	1,127	170	1.7	0.2
6 or more	498	68	0.8	0.0
Selected services²				
Blood pressure check	35,538	5,102	53.6	0.2
Other blood test	12,871	1,711	19.4	0.1
Urinalysis	8,864	1,430	13.4	0.1
Spirometry	*533	186	0.8	0.0
Allergy testing	*230	109	0.3	0.0
HIV serology ³	496	99	0.7	0.0

... Category not applicable.

0.0 Quantity more than zero but less than 0.05.

* Figure does not meet standard of reliability or precision.

¹Includes the six checkbox categories for selected services and up to six other services recorded by the hospital staff in the spaces provided on the Patient Record form. These include tests, imagings, surgeries and other procedures, and therapies with the exception of counseling/education and medication. Numbers of services may not add to total because of rounding.

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

³HIV is human immunodeficiency virus.

Counseling/education

As shown in table 11, more than half (54.7 percent) of all OPD visits did not include any form of counseling or education either ordered or provided. The most frequently reported were exercise (4.9 percent), growth/development (3.5 percent) and weight reduction (3.2 percent). More than one-third (37.7 percent) of visits included other unspecified types of counseling.

Medication therapy

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

Table 10. Number and percent of outpatient department visits by the 20 write-in tests, surgical and nonsurgical procedures, and therapies most often ordered or provided: United States, 1994

<i>Tests, surgical and nonsurgical procedures, and therapies and ICD-9-CM code¹</i>	<i>Number of visits in thousands²</i>	<i>Standard error in thousands</i>	<i>Percent</i>	<i>Standard error of percent</i>
All visits	66,345	7,969	...	...
All visits with procedures written in	34,044	4,657	51.3	0.5
Eye examination, not otherwise specified	*1,952	649	2.9	0.9
Routine chest x ray	1,845	354	2.8	0.3
Pap smear	1,845	343	2.8	0.3
Other individual psychotherapy	1,790	491	2.7	0.7
Electrocardiogram	1,378	272	2.1	0.3
Other mammography	1,051	237	1.6	0.3
Other nonoperative measurements and examinations	*1,046	318	1.6	0.5
Microscopic examination of specimen from female genital tract—culture	885	113	1.3	0.2
Diagnostic ultrasound of gravid uterus	644	115	1.0	0.2
Other local excision or destruction of lesion or tissue of skin and subcutaneous tissue	632	157	1.0	0.2
Gynecological examination	*629	232	0.9	0.3
Microscopic examination of specimen from ear, nose, throat, and larynx—culture	503	99	0.8	0.1
Other physical therapy	*426	169	0.6	0.2
Skeletal x ray of ankle and foot	408	102	0.6	0.1
X ray, other and unspecified	382	105	0.6	0.1
Tomography, provocative tests, and other glaucoma testing	*374	260	0.6	0.4
Skeletal x ray of thigh, knee, and lower leg	351	93	0.5	0.1
Microscopic examination of specimen from unspecified site—culture	341	87	0.5	0.1
Application of other wound dressing	335	72	0.5	0.1
Skeletal x ray of wrist and hand	333	67	0.5	0.1

... Category not applicable.

* Figure does not meet standard of reliability or precision.

¹Based on the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) (10)*.

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

Table 11. Number and percent of outpatient department visits with corresponding standard errors by counseling/education services ordered or provided: United States, 1994

Counseling/education service	Number of visits in thousands ¹	Standard error in thousands	Percent	Standard error of percent
All visits	66,345	7,969	...	...
Exercise	3,279	634	4.9	0.7
Growth/development	2,312	406	3.5	0.6
Weight reduction	2,143	471	3.2	0.6
Smoking cessation	1,258	255	1.9	0.2
Injury prevention	997	155	1.5	0.2
Cholesterol reduction	959	287	1.4	0.4
Other STD transmission ²	954	211	1.4	0.3
HIV transmission ³	877	201	1.3	0.3
Other	25,033	2,966	37.7	0.3
None	36,303	5,355	54.7	0.3

... Category not applicable.
¹Numbers exceed total number of visits because more than one service may be reported per visit.
²STD is sexually transmitted disease.
³HIV is human immunodeficiency virus.

Table 12. Number and percent distribution of outpatient department visits with corresponding standard errors by number of medications provided or prescribed: United States, 1994

Number of medications	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits	66,345	7,969	100.0	...
None	26,068	3,181	39.3	1.5
1	18,863	2,351	28.4	0.8
2	10,149	1,253	15.3	0.6
3	5,153	673	7.8	0.4
4	2,785	378	4.2	0.3
5 or more	3,327	714	5.0	0.7

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

Table 13. Number, percent distribution, and therapeutic classification for the 20 drugs most frequently prescribed at outpatient department visits with corresponding standard errors, by entry name of drug: United States, 1994

Entry name of drug ¹	Number of drug mentions in thousands	Standard error in thousands	Percent distribution	Standard error of percent	Therapeutic classification ²
All drug mentions	82,394	11,238	100.0	...	
Tylenol	2,253	421	2.7	0.4	General analgesics
Amoxicillin	1,468	217	1.8	0.3	Penicillins
Motrin	1,179	207	1.4	0.2	Antiarthritics
Procardia	970	206	1.2	0.2	Antianginal agents
Prednisone	915	188	1.1	0.2	Adrenal corticosteroids
Zantac	867	144	1.1	0.1	Agents used in disorders of upper GI tract
Lasix	866	191	1.1	0.2	Diuretics
Prenatal formula (vitamins)	*838	339	1.0	0.4	Vitamins, minerals
Proventil	778	139	0.9	0.2	Bronchodilators, antiasthmatics
Vasotec	770	154	0.9	0.2	Antihypertensive agents
Bactrim	769	167	0.9	0.2	Antimicrobials
Insulin	718	160	0.9	0.2	Blood glucose regulators
Synthroid	712	146	0.9	0.2	Agents used to treat thyroid disease
Premarin	635	168	0.8	0.2	Estrogens and progestins
Keflex	631	140	0.8	0.1	Cephalosporins
Prenatal vitamins	617	163	0.7	0.2	Vitamins, minerals
Benadryl	613	115	0.7	0.1	Antihistamines
Cardizem	*599	231	0.7	0.3	Antianginal agents
Prozac	593	118	0.7	0.2	Antidepressants
Ventolin	592	96	0.7	0.1	Bronchodilators, antiasthmatics
All other mentions	65,011	10,183	78.9	0.5	...

... Category not applicable.
 * Figure does not meet standard of reliability or precision.
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* (12). In cases where a drug had more than one therapeutic use, it was listed in the NDC category that occurred with the greatest frequency.
 NOTE: Numbers may not add to totals because of rounding.

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 and instruments used to collect and process drug information has been published (11).

Medication therapy was used at 60.7 percent of the outpatient department visits (table 12). There was a total of 82.4 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. Therapeutic classification is based on the therapeutic categories used in the *National Drug Code Directory, 1985 edition* (12). The top 20 medications accounted for less than one quarter (21.1 percent) of all drug mentions. Tylenol was the medication most frequently prescribed, with 2.3 million mentions, or 2.7 percent of the total. It was followed by amoxicillin (1.8 percent) and Motrin (1.4 percent).

Table 14. Number and percent of outpatient department visits with corresponding standard errors by disposition of visit: United States, 1994

Disposition	Number of visits in thousands ¹	Standard error in thousands	Percent	Standard error of percent
All visits	66,345	7,969	...	...
Return to clinic with appointment	42,821	5,096	64.5	2.2
Return to clinic PRN ²	13,135	1,984	19.8	1.3
Refer to other physician/clinic	5,045	763	7.6	0.9
No followup planned.	4,122	876	6.2	1.0
Telephone followup planned	2,044	428	3.1	0.5
Return to referring physician.	2,004	394	3.0	0.5
Admit to hospital	938	254	1.4	0.3
Other	1,659	421	2.5	0.1

... Category not applicable.
¹Numbers exceed total number of visits because more than one disposition may be reported per visit.
²PRN is *pro re nata*, as needed.

Table 15. Number and percent of outpatient department visits with corresponding standard errors by type of provider seen: United States, 1994

Type of provider	Number of visits in thousands ¹	Standard error in thousands	Percent	Standard error of percent
All visits	66,345	7,969	...	...
Staff physician	44,390	5,882	66.9	3.0
Registered nurse	28,398	3,442	42.8	3.4
Resident/intern	14,562	1,932	21.9	2.2
Licensed practical nurse	8,261	1,818	12.5	2.1
Physician assistant/nurse practitioner	*5,497	1,867	8.3	2.2
Nurse's aide.	4,737	1,267	7.1	1.5
Other physician	*2,226	705	3.4	0.8
Other	11,227	1,782	16.9	2.0

... Category not applicable.
* Figure does not meet standard of reliability or precision.
¹Numbers exceed total number of visits because more than one provider may be reported per visit.

Disposition of this visit

About two-thirds of OPD visits (64.5 percent) resulted in an appointment for a return visit. 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 one-fifth (19.8 percent) of visits, the disposition was return to clinic PRN (*pro re nata*, as needed) (table 14). Only 1.4 percent of OPD visits resulted in hospital admission.

Providers seen this visit

A physician was seen at more than four-fifths of OPD visits (81.5 percent). Registered nurses were seen at 42.8 percent of visits (table 15).

Additional reports utilizing NHAMCS data are forthcoming in the *Advance Data from Vital and Health Statistics* series. In addition, survey data

for 1992 and 1993 are available on computer tape from the National Technical Information Service. NHAMCS data for 1992 are also available on CD-ROM, and additional years are forthcoming. Questions regarding this report, future reports, or the NHAMCS may be directed to the Ambulatory Care Statistics Branch by calling (301) 436-7132.

References

1. Stussman BJ. National Hospital Ambulatory Medical Care Survey: 1994 emergency department summary. Advance data from vital and health statistics; no. 275. Hyattsville, Maryland: National Center for Health Statistics. 1996.
2. McCaig LF. National Hospital Ambulatory Medical Care Survey: 1992 emergency department summary. Advance data from vital and health statistics; no. 245. Hyattsville, Maryland: National Center for Health Statistics. 1994.

3. McCaig LF. National Hospital Ambulatory Medical Care Survey: 1992 outpatient department summary. Advance data from vital and health statistics; no. 248. Hyattsville, Maryland: National Center for Health Statistics. 1994.
4. Nelson CR, Stussman BJ. Alcohol- and drug-related visits to hospital emergency departments: 1992 National Hospital Ambulatory Medical Care Survey. Advance data from vital and health statistics; no. 251. Hyattsville, Maryland: National Center for Health Statistics. 1994.
5. Burt CW. Injury-related visits to hospital emergency departments: United States 1992. Advance data from vital and health statistics; no. 261. Hyattsville, Maryland: National Center for Health Statistics. 1995.
6. 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.
7. Stussman BJ. National Hospital Ambulatory Medical Care Survey: 1993 emergency department summary. Advance data from vital and health statistics; no. 271. Hyattsville, Maryland: National Center for Health Statistics. 1996.
8. McCaig LF, McLemore T. Plan and operation of the National Hospital Ambulatory Medical Care Survey. National Center for Health Statistics. Vital Health Stat 1(34). 1994.
9. Schneider D, Appleton L, McLemore T. A reason for visit classification for ambulatory care. National Center for Health Statistics. Vital Health Stat 2(78). 1979.
10. Public Health Service and Health Care Financing Administration. International Classification of Diseases, 9th Revision, clinical modification. Washington: Public Health Service. 1980.
11. Koch H, Campbell W. The collection and processing of drug information. National Ambulatory Medical Care Survey, 1980. National Center for Health Statistics. Vital Health Stat 2(90). 1982.
12. Food and Drug Administration. National Drug Code Directory, 1985 Edition. Washington: Public Health Service, 1985.
13. Shah BV, Barnwell BG, Hunt PN, La Vange LM. SUDAAN user's manual release 5.50. Research Triangle Park, North Carolina: Research Triangle Institute. 1991.

Technical notes

Source of data and sample design

The information presented in this report is based on data collected in the 1994 National Hospital Ambulatory Medical Care Survey (NHAMCS) from December 27, 1993, through December 25, 1994. 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. From 1992 through the present, the NHAMCS sampling frame consists of hospitals that were listed in the April 1991 SMG Hospital Database.

A four-stage probability sample design is used in NHAMCS. The design involves 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 that comprise a probability subsample of the PSU's used in the 1985-94 National Health Interview Survey. The sample for 1994 consisted of 489 hospitals. Of this group, 443 hospitals had either an ED or an OPD in 1994 that was in scope or eligible for the survey. During this period, 95 percent of the in-scope hospitals participated by completing Patient Record forms.

Based on the induction interview, 260 of the sample hospitals had OPD's. Hospital staff were asked to complete Patient Record forms (see 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 29,095.

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 (13). 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 coefficient from table I.

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

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 coefficient from table I.

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

Table I. Coefficients appropriate for determining relative standard errors by type of estimate for hospital outpatient departments: National Hospital Ambulatory Medical Care Survey, 1994

Type of estimate	Coefficient for use with estimate in thousands	
	A	B
Visits	0.018523	6.527211
Drug mentions	0.024411	8.160902

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

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 except Federal hospitals and hospital units of institutions, and hospitals with less than six beds staffed for patient use.

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 of these areas were selected with certainty into the sample. Off-site emergency departments that are 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.

Trade name disclaimer

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

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