

Headache as the Reason for Office Visits, National Ambulatory Medical Care Survey: United States, 1977-78

by Beulah K. Cypress, Ph.D., Division of Health Care Statistics

Headache was the principal cause of an estimated 18,341,923 visits to office-based physicians during 1977-78. Headache was the seventh most frequent symptomatic reason for visits given by patients.

The estimates in this report are based on data collected in the National Ambulatory Medical Care Survey (NAMCS), a probability sample survey conducted yearly by the Division of Health Care Statistics of the National Center for Health Statistics. Since the estimates presented in this report are based on a sample rather than on the entire universe of officebased physicians, the data are subject to sampling

ability. The Technical Notes at the end of this ort provide a brief explanation of sampling errors and guidelines for judging the precision of the estimates presented. A more detailed description of the sample design and additional definitions of certain terms used in NAMCS have been published elsewhere.¹

Figure 1 is a facsimile of the 1977-78 Patient Record used by participating physicians to record information about office visits. The patient's complaint, symptom, or other reason for the visit, expressed as nearly as possible in the patient's own words, is recorded by the physician in item 6. The *principal* reason (listed, first in this item) is the one that in the physician's judgment was most responsible for the patient making the visit. Data on principal reason were classified and coded according to a reason for visit classification system presented in another report.² Since 1977 was the first year that this classification system was used, caution should be exercised in comparing data presented in this report with those of prior years.

Data highlights

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Table 1 provides the age and sex of patients who visited office-based physicians for medical care related to headache. The average annual rate of these visits increased with the advancing age group of the patients. Females over 15 years of age tended to visit more frequently for headache problems than males did. Visit rates for female patients over 44 years of age were about twice as high as those for their male counterparts.

Headache accounted for about the same proportion of total visits regardless of the geographic location of

Table 1. Number, percent distribution, and average annual rate of office visits with headache as the principal reason for visit by sex and age of patient: United States, 1977-78

Sex and age	Number of visits in thousands	Percent distribution	Average annual visit rate per 1,000 persons
Both sexes			
All ages	18,342	100.0	43.2
Under 15 years	1,793 2,486 5,996 5,196 2,871	9.8 13.6 32.7 28.3 15.7	17.6 31.4 53.8 60.2 63.9
Female			
All ages	12,148	66.2	55.4
Under 15 years	787 1,645 3,858 3,699 2,159	4.3 9.0 21.0 20.2 11.8	15.8 40.8 67.0 82.0 81.8
Male			
All ages	6,194	33.8	30.3
Under 15 years	1,006 841 2,138 1,496 713	5.5 4.6 11.7 8.2 3.9	19.4 21.7 39.7 36.3 38.4

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES, Public Health Service, Office of Health Research, Statistics, and Technology

¹National Center for Health Statistics: The National Ambulatory Medical Care Survey, 1977 summary: United States, January-December 1977, by T. Ezzati and T. McLemore. *Vital and Health Statistics*, Series 13-No. 44. DHEW Pub. No. (PHS) 80-1795. Public Health Service. Washington. U.S. <u>Government Printing Office</u>, Apr. 1980.

tional Center for Health Statistics: A reason for visit classification for ilatory care, by D. Schneider, L. Appleton, and T. McLemore. *Vital* Health Statistics. Series 2-No. 78. DHEW Pub. No. (PHS) 79-1352. 5.5. Government Printing Office, Feb. 1979.

Symbols

- --- Data not available
- ... Category not applicable
- Quantity zero
- 0.0 Quantity more than 0 but less than 0.05
- * Figure does not meet standards of reliability or precision

Figure 1. NATIONAL AMBULATORY MEDICAL CARE SURVEY PATIENT RECORD FORM: 1977-78

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the purpose	s of the survey and w	ill not be disclosed or releas	ed to other persons or u	ised for an	ny other purpose.	<u>~ 033012</u>
	N	PA ATIONAL AMBUL	TIENT RECORD ATORY MEDICA	L CAR	ESURVEY	
2. DATE OF BIRTH	3. SEX ¹ □ FEMALE ² □ MALE	4. COLOR OR RACE I WHITE REGRO/ BLACK I OTHER UNKNOWN	5. WAS PATIENT REFERRED FOR THIS VISIT BY ANOTHER PHYSICIAN? 1 I YES 2 NO	6. PA RE (In a. MO IMF b. OTI	TIENT'S COMPLAINT(S), SYN ASON(S) FOR THIS VISIT patient's own wordsj ST PORTANT HER	IPTOM(S), OR OTHER
7. TIME SINCE ONSE OF COMPLAINT/ SYMPTOM IN ITEN (Check one) 1 LESS THAN 1 1 2 1-6 DAYS 3 1-3 WEEKS 4 1-3 WORE THAN 3 MONTHS 4 NOT APPLICAT	T 8. PHYSICIA 16. PRINC ITEM DAY b. OTHE BLE	NY'S DIAGNOSES	LEM ASSOCIATED WIT	гн 	9. HAVE YOU SEEN PATIENT BEFORE? U YES 2 NO IF YES, FOR THE CONDITION IN ITEM 8#7 U YES 2 NO	10. SERIOUSNESS OF CONDITION IN ITEM 8ª (Check one) • □ VERY SERIOUS • □ SERIOUS • □ SLIGHTLY • □ SERIOUS • □ NOT SERIOUS
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Table 2. Number of office visits and number, percent, and average annual rate of office visits with headache as the principal reason for visit, by location of physician's practice: United States, 1977-78

	Number in	n thousands		Average annual visit rate per 1,000 persons	
Location of practice	All visits	Visits for headache	Percent		
Geographic region					
lortheast	271,440	4,580	1.7	47.1	
lorth Central	291,571	4,404	1.5	38.6	
outh	355,754	5,613	1.6	40.6	
lest	235,785	3,745	1.6	50.5	
Type of area					
letropolitan	865,549	13,479	1.6	46.5	
ometropolitan	289,001	4,863	1.7	36.3	

the physician's practice (table 2). However, visit rates varied, indicating higher utilization rates in the Northeast and West Regions than in the North Central and South, and in metropolitan than in nonmetropolitan areas.

The specialists most commonly visited by patients presenting headache as the reason for visit are shown in table 3. Eighteen percent of visits to neurologists were made by patients with a principal complaint of headache. Other specialists treated headache patients in 1 or 2 percent of their visits.

Table 3. Number of office visits and number and percent of office visits with headache as the principal reason for visit, by selected physician specialties: United States, 1977-78

	Number i		
Specialty	All visits	Visits for headache	Percent
All specialties	1,154,550	18,342	1.6
General and family practice	433,936	9,528	2.2
pal medicine	133,291	2,754	2.1
rics	114,921	905	0.8
cral surgery	69,223	584	0.8
Ophthalmology	58,851	1,053	1.8
Neurology	5,109	938	18.4
Otolaryngology	32,193	802	2.5

Patients who developed a headache that was a new problem were likely to visit their physicians within 3 weeks of its onset, with over 40 percent of visits occurring in less than a week (table 4).

About half the visits for headache involved a condition evaluated by the physician as not serious in nature (table 5). There was no statistically significant difference in this proportion by sex of the patient.

The principal diagnosis made by the physician for the patient who presents headache as the chief complaint is recorded in item 8 of the Patient Record. Diagnostic codes are based on the Eighth Revision International Classification of Diseases (ICDA).³ Table 6 contains a list of the diagnoses most frequently associated with headache. Headache, as a *diagnosis*, appeared in an estimated 31 percent of such visits (ICDA codes 306, 346, and 791). An additional 14 percent were attributed to hypertension.

Table 4. Percent of office visits with headache as a new problem, by sex of patient and time since onset of complaint: United States, 1977-78

Time since onset of complaint	Female	Male	
N	Perce		
Less than 1 week	. 43.9 . 16.3	49.3 22.7	
1-3 months	. 16.1 . 20 <i>.</i> 5	13.6 13.7	

Table 5. Percent distribution of office visits with headache as the principal reason for visit, by seriousness of problem, according to sex of patient: United States, 1977-78

Seriousness of problem	Female	Male
• • • • • • • • • • • • • • • • • • •	Percent di	stribution
All visits	. 100.0	100.0
Not serious	. 51.4 . 35.6	47.3 38.3
Serious or very serious	. 12.9	14.5

³National Center for Health Statistics: *Eighth Revision International Classification of Diseases, Adapted for Use in the United States.* PHS Pub. No. 1693. Public Health Service. Washington. U.S. Government Printing Office, 1967.

Table 6. Number and percent distribution of office visits with headache as the principal reason for visit by principal diagnosis: United States, 1977-78

Principal diagnosis and ICDA code ¹	Number of visits in thousands	Percent distribution
All diagnoses	18,342	100.0
Neuroses	653	3.6
Special symptoms not elsewhere 306 classified ² 306 Migraine 346 Refractive errors 370 Essentjal benign hypertension 401 Acute upper respiratory infection of multiple or upspecified istes multiple or upspecified istes 465	1,692 1,635 500 2,494	9.2 8.9 2.7 13.6
Chronic sinusitis.	1,332	7.3
Hay fever	420	2.3
Headache ³	2,303	12.6
Concussion	345	1.9
All other diagnoses residual	6,328	34.5

¹Based on the <u>Eighth Revision International Classification of Diseases</u>, Adapted for Use in the United States (ICDA).

 2 These records coded 306.8, the ICDA category for cephalalgia, including headache of nonorganic origin and tension headache.

 $^{3}\text{Excludes}$ headache of nonorganic origin (306.8), migraine (346), and tension headache (306.8).

Table 7. Percent of office visits with headache as the principal reason for visit, by selected diagnostic and therapeutic services ordered or provided: United States, 1977-78

Diagnostic and therapeutic services	Percent of visits
Diagnostic services	
None	6.1
Limited exam/history	62.2
General exam/history	23.9
Pap test	*1.4
Clinical lab test	16.2
X-ray	9.0
EKG	3.5
Vision test	6.3
Blood pressure check	49.2
Other	7.1
Therapeutic services	
None	12.2
Immunization/desensitization	3.1
Drugs (prescription/nonprescription)	73.8
Diet counseling	6.5
Medical counseling	21.0
Physiotherapy	4.0
Office surgery	*1.3
Psychotherapy/therapeutic listening	5.0
Other	2.6

Table 8. Percent distribution of office visits with headache as the principal reason for visit by duration and disposition of visit: United States, 1977-78

Duration and disposition	Percent distribution of visits	
All visits	100.0	
Duration		
0 minutes ¹ 1-5 minutes 6-10 minutes 11-15 minutes 16-30 minutes 31 minutes or more Disposition ²	2.2 11.2 26.9 30.5 21.7 7.5	
No followup planned	9.4 52.4 32 3 4. *1.8 *1.2 *0.8	

 $^{1}\mbox{Visits}$ in which there was no face-to-face contact between the patient and the physician.

 2 Will not total 100.0 since more than one disposition was possible.

The potential presence of hypertension is reflected in the higher than average proportion of visits in which blood pressure was measured. Table 7 shows that blood pressure was checked during 49 percent of visits for headache compared with the NAMCS average of 34 percent of all visits.

Drug therapy (either prescription or nonprescription) was used in 74 percent of visits, a proportion that exceeded the average of 53 percent of all NAMCS visits. Table 7 also shows the percent of visits in which various diagnostic and therapeutic services were either ordered or provided.

Table 8 provides data on the duration and disposition of visits for headache.

Additional data on headache and other reasons for visits will be presented in more detail in a report fr the *Vital and Health Statistics* series. Quest regarding this report may be directed to the Ambulatory Care Statistics Branch by calling 301-436-7132.

Technical notes

Source of data

The information presented in this report is based on data collected in the National Ambulatory Medical Care Survey (NAMCS) during 1977 and 1978. The NAMCS universe is composed of office visits made within the conterminous United States by ambulatory patients to nonfederally employed physicians who are principally engaged in office practice and are not in the specialties of anesthesiology, pathology, or radiology. The National Opinion Research Center, under intract to the National Center for Health Statistics,

esponsible for the NAMCS field operations.

Sample design

NAMCS utilizes a multistage probability design that involves samples of primary sampling units (PSU's), physician practices within PSU's, and patient visits within physician practices. For 1977-78 a sample of 6,007 non-Federal, office-based physicians was selected from master files maintained by the American Medical Association and the American Osteopathic Association. The physician response rate for this period was 75.1 percent. Sampled physicians were requested to complete Patient Records (figure 1) for a systematic random sample of office visits taking place during a randomly assigned weekly reporting period. During 1977-78, 98,335 Patient Records were completed by responding physicians.

Sampling errors

The standard error is primarily a measure of the sampling variability that occurs by chance because only a sample, rather than the entire universe, is sampled. The relative standard error of an estimate is obtained by dividing the standard error of the estimate

the estimate itself and is expressed as a percent of estimate. Relative standard errors for aggregate statistics are shown in tables I and II. Standard errors for estimated percentages are shown in tables III and IV.

	Estimated number of office visits in thousands	Relative standard error in percent
500		. 24.9
1.000		. 17.7
2.000		. 12.7
5,000		. 8.3
10.000		6.2
20.000		. 4.8
50.000		. 3.8
200,000		. 3.1
1,000,000		. 2.9

Example of use of table: An aggregate of 15,000,000 visits has a relative standard error of 5.5 percent, or a standard error of 825,000 visits (5.5 percent of 15,000,000).

Table	П.	A	proxi	mate	rela	tive	standard	errors	of	estimated	numbers
of	offi	ce	visits	based	on	an	individual	physic	ian	specialty:	NAMCS,
19	77-7	8'									

Estimated number of office visits in thousands					
500	. 27.0				
1,000	. 19.6				
2,000	. 14.5				
5,000	. 10.3				
10,000	. 8.5				
20,000	. 7.4				
50,000	. 6.7				
100,000	. 6.4				
400,000	. 6.2				

Example of use of table: An aggregate of 7,500,000 visits has a relative standard error of 9.4 percent, or a standard error of 705,000 visits (9.4 percent of 7,500,000).

Definitions

Ambulatory patient.—An ambulatory patient is an individual presenting himself for personal health services who is neither bedridden nor currently admitted to any health care institution on the premises.

Office.—An office is a place that the physician identifies as a location for his ambulatory practice. Responsibility over time for patient care and professional services rendered there generally resides with the individual physician rather than an institution.

Visit.—A visit is a direct personal exchange between an ambulatory patient and a physician, or between a patient and a staff member working under the physician's supervision, for the purpose of seeking care and rendering health services.

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

Table III. Approximate standard errors of percents of estimated numbers of office visits based on all physician specialties: NAMCS, 1977-78

Base of percent (number of office visits in thousands)	Estimated percent							
	1 or 99	5 or 95	10 or 90	20 or 80	30 or 70	50		
	\$	Standar	d error i	n percen	tage poir	its		
500	2.5	5.4	7.4	9.9	11.4	12.4		
1,000	1.7	3.8	5.3	7.0	8.0	8.8		
2,000	1.2	2.7	3.7	5.0	5.7	6.2		
5,000	0.8	1.7	2.3	3.1	3.6	3.9		
10,000	0.6	1.2	1.7	2.2	2.5	2.8		
20,000	0.4	0.9	1.2	1.6	1.8	2.0		
50,000	0.2	0.5	0.7	1.0	1.1	1.2		
200,000	0.1	0.3	0.4	0.5	0.6	0.6		
1,000,000	0.1	0.1	0.2	0.2	0.3	0.3		

Example of use of table: An estimate of 20 percent based on an aggregate of 15,000,000 visits has a standard error of 1.9 percent, or a relative standard error of 9.5 percent (1.9 percent \div 20 percent).

Table IV. Approximate standard errors of percents of estimated numbers of office visits based on an individual physician specialty: NAMCS, 1977-78

Base of percent (number of office visits in thousands)	Estimated percent								
	1 or 99	5 or 95	10 or 90	20 or 80	30 or 70	50			
	Standard error in percentage points								
500	2.6	5.7	7.9	10.5	12.1	13.1			
1,000	1.9	4.1	5.6	7.4	8.5	9.3			
2,000	1.3	2.9	3.9	5.3	6.0	6.6			
5,000	0.8	1.8	2.5	3.3	3.8	4.2			
10,000	0.6	1.3	1.8	2.4	2.7	2.9			
20,000	0.4	0.9	1.2	1.7	1.9	2.1			
50,000	0.3	0.6	0.8	1,1	1.2	1.3			
100,000	0.2	0.4	0.6	0.7	0.9	0.9			
100,000	0.1	0.2	0.3	0.4	0.4	0.5			

Example of use of table: An estimate of 90 percent based on an aggre of 3,500,000 visits has a standard error of 3.2 percent, or a relati standard error of 3.6 percent (3.2 percent \div 90 percent).



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Recent Issues of Advance Data From Vital and Health Statistics

No. 66. Visits to Family Planning Sites: United States, 1977 (In preparation)

No. 65. Cough as the Reason for Office Visits, National Ambulatory Medical Care Survey: United States, 1977-78 (Issued: November 5, 1980)

No. 64. Health Practices Among Adults: United States, 1977 (Issued: November 4, 1980)

No. 63. Office Visits for Male Genitourinary Conditions: National Ambulatory Medical Care Survey: United States, 1977-78 (Issued: November 3, 1980)

No. 62. Expected Principal Source of Payment for Hospital Discharges: United States, 1977 (Issued: October 31, 1980)

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