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# Office Visits for Preventive Care, National Ambulatory Medical Care Survey: United States, 1977-78

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This report provides an estimate of public utilization of office-based physicians for purposes of preventive care. Its focus is on visits for certain examinations and tests that are likely to be undertaken because of the patient's interest in good health maintenance or early detection of disease.

Data on visits for such health-monitoring activities are collected in the National Ambulatory Medical Care Survey (NAMCS) of the National Center for Health Statistics. In this survey the patient's complaint, symptom, or other reason for visit, expressed as nearly as possible in the patient's own words, is ecorded by the physician in item 6 of the data collection form. Physicians are instructed to record key words or phrases verbatim to the extent possible. Figure 1 is a facsimile of the 1977-78 Patient Record used by participating physicians to record information about office visits. The principal reason (the reason that is listed first in item 6) is the one that in the physician's judgment was most responsible for the patient making the visit. Data on reasons were classified and coded according to a reason for visit classification system presented in another report.<sup>1</sup>

NAMCS is a probability sample survey conducted yearly by the Division of Health Care Statistics. Since the estimates presented in this report are based on a sample rather than on the entire universe of office-based physicians, the data are subject to sampling variability. The technical notes at the end of this report provide a brief explanation of sampling errors and guidelines for judging the precision of the estimates presented as well as definitions of certain terms used in NAMCS. A more detailed description of the

sample design and additional definitions have been published elsewhere.<sup>2</sup> The reader should note that estimates of numbers of visits contained in this report are for a 2-year period, but ratios and rates represent average annual estimates.

Pain, discomfort, and other morbidity-related symptoms classified in the symptom module of the reason for visit classification system, because of their compelling nature, were the reasons given most frequently by patients. These reasons constituted 56 percent of all office visits during the 2-year period 1977-78 (table 1). Visits for diagnostic, screening, and preventive care-usually made by asymptomatic patients for reasons other than illness-made up the second largest group, accounting for about 18 percent. The examinations and tests listed in table 2 composed the major part of the diagnostic, screening, and preventive care group and were responsible for about 17 percent of all visits. These specific reasons for visits were selected for this analysis because they are likely to be patient motivated rather than physician initiated; they are also the reasons for visits that are least likely to be related to a morbid condition. Thus they offer a measure of patients' interest in preventive care.

As a group, illness-related reasons in the symptom module exceeded those not necessarily related to illness. Among all specific reasons, however, two nonillness reasons were predominant, ranking first and second. These were general medical examinations and routine prenatal examinations, which accounted for about 5 percent and 4 percent of visits, respectively (table 2). For women, prenatal

<sup>&</sup>lt;sup>1</sup>National Center for Health Statistics: A reason for visit classification for ambulatory care, by D. Schneider, L. Appleton, and T. McLemore. *Vital and Health Statistics.* Series 2-No. 78. DHEW Pub. No. (PHS) 9-1352. Public Health Service. Washington. U.S. Government Printing Office, Feb. 1979.

<sup>&</sup>lt;sup>2</sup>National 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. Government Printing Office, Apr. 1980.

. DATE OF VISIT	N.	PAT ATIONAL AMBULA	TIENT RECORD ATORY MEDICAL	_ CAR	E SURVEY	
P. DATE OF BIRTH	3. SEX  1  FEMALE 2  MALE	4. COLOR OR RACE  UNHITE  NEGRO/BLACK  OTHER  UNKNOWN	5. WAS PATIENT REFERRED FOR THIS VISIT BY ANOTHER PHYSICIAN?  1  YES 2  NO	a. MO:	TIENT'S COMPLAINT(S), SYN EASON(S) FOR THIS VISIT patient's own words) ST PORTANT	
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11. DIAGNOSTIC SEI VISIT (Check all o.	nrdered or provided)  MHISTORY  MHISTORY  TEST	12. THERAPEUTIC SE VISIT (Check all or VISIT (Check all or DESENSITIZ)  DESENSITIZ  DRUGS (PRESCENONPR	rdered or provided)  ATION RIPTION/ RIPTION) ING RISSELING PY RY RY FIC LISTENING	(Che 1	POSITION THIS VISIT eck all that apply)  FOLLOW-UP PLANNED TURN AT SPECIFIED TIME TURN IF NEEDED, P.R.N. LEPHONE FOLLOW-UP PLAN FERRED TO OTHER PHYSIC TURNED TO REFERRING YSICIAN MIT TO HOSPITAL HER (Specify)	CIAN MINUTE

Figure 1. National Ambulatory Medical Care Survey Patient Record Form: 1977-78

Table 1. Number and percent distribution of office visits by reason for visit module: United States, 1977-78

Reason for visit module and RVC code 1	Number of visits in thousands	Percent distribution of visits
All modules	1,154,550	100.0
Symptom module S001-S999	648,990	56.2
Disease module	100,902	8.7
Diagnostic, screening, and preventive moduleX100-X599 Treatment moduleT100-T899	211,690 103.586	18.3 9.0
Injuries and adverse effects	100,000	0.0
module J001-J999	48,941	4.2
Test results module R100-R700	6,237	0.5
Administrative module	19,029	1.7
Other <sup>2</sup>	15,185	1.3

<sup>&</sup>lt;sup>1</sup>Based on the reason for visit classification (RVC). See reference 1. <sup>2</sup>Includes blanks, problems and complaints not elsewhere classified, entries of "none," and illegible entries.

examinations were proportionately more frequent than general medical examinations. A rough measure of patient motivation toward health care is the ratio of return visits to new-problem visits. On the average, patients giving prenatal care as the reason for visit made about 5.3 return visits for each new-problem visit. Because of these and other sex-specific examinations, the preventive measures shown in table 2 accounted for about 20 percent of visits made by women, compared with 11 percent of those made by men.

Table 3 presents the percent distribution and average annual rates of visits for the selected preventive care measures by sex and age of patients. When the visits were for general medical examinations, eye examinations, or family planning, visit rates for females in all age groups exceeded those for their

ble 2. Number of office visits and percent of visits for preventive care, by sex of patient and selected principal reasons for visit: United States, 1977-78

Principal reason for visit and RVC code <sup>1</sup>	Both sexes	Female	Male	
	Number o	f visits in t	housands	
All reasons	. 1,154,550	694,431	460,119	
	Per	cent of vis	its	
General medical examination	5 1.2 5 3.5 6 0.4 0 0.1 5 1.2 0 1.0 0 2.1	5.0 1.0 5.8 0.6 0.1 1.9 1.1 2.0	5.3 1.5  *0.0  1.0 2.2	
Pap smear	0.7	1.1 0.6 1.0	0.8 0.2	

 $<sup>^{1}</sup>$ Based on the reason for visit classification (RVC). See reference 1.

male counterparts. Figure 2 demonstrates how visit rates for general medical examinations increased with advancing age of the patients, regardless of sex. Rates for well-baby examinations and prophylactic inoculations were similar for both sexes, as might be expected.

Visits for blood pressure tests were more common among men 15-44 years of age than among women the same age, but the comparison is reversed for ages 55 and over. During the middle years, 45-54, women were as likely to visit for blood pressure tests as men were. Figure 3 highlights this phenomenon. Additional information on blood pressure measurement (not necessarily related to the reason for visit) has been published earlier.<sup>3</sup>

Women 25-44 years of age had higher visit rates for gynecological examinations and Pap smears than women in other age groups had. Although professional opinions vary regarding the optimal age and interval for testing for cervical cancer, it appears from these data that women in the childbearing years are more likely than other women to have concern for this aspect of health status.

Table 4 presents data on the utilization for preventive care of the four most visited physician specialties. More than half the visits to specialists in

<sup>3</sup>National Center for Health Statistics: Office visits for diseases of the circulatory system, the National Ambulatory Medical Care Survey: United States, 1975-76, by B. K. Cypress. *Vital and Health Statistics*. Series 13-No. 40. DHEW Pub. No. (PHS) 79-1791. Public Health Service. Washington. U.S. Government Printing Office, Jan. 1979.

Table 3. Number, percent distribution, and average annual rate of office visits for preventive care by sex and age of patient, according to selected principal reasons for visit: United States, 1977-78

Different conservation of the	Number of				Female	e				Male		
Principal reason for visit and RVC code <sup>1</sup>	visits in thousands	sexes, all ages	Under 15 years	15-24 years	25-44 years	45-64 years	65 years and over	Under 15 years	15-24 years	25-44 years	45-64 years	65 years and over
						Percent	distribution	of visits				
General medical examinationX100	59,115	100.0	17.7	5.4	12.5	13.5	10.0	17.0	2.5	5.3	9.6	6.6
Well-baby examination X105	13,726	100.0	48.9					51.1				
Prenatal examination, routine X205	40,394	100.0	*0.5	47.2	51.8	*0.4						
Postpartum examinationX215	4,114	100.0	*3.6	43.1	52.6	*0.7						
Breast examination X220	915	100.0	-	*12.8	*35.1	*35.7	*15.2	-	-	-	-	*1.3
Gynecological examination X225	13,262	100.0	*0.1	19.7	50.9	25.1	4.3					
Eye examination	11,952	100.0	7.6	10.0	12.7	19.7	12.5	5.9	5.6	7.1	11.0	8.0
Blood pressure test X320		100.0	*0.6	*0.4	4.7	26.0	26.5	*0.1	*0.9	6.8	20.5	13.6
Pap smear		100.0	*0.7	21.5	50.6	23.3	*4.1					
Prophylactic inoculations X400		100.0	22.9	5.4	8.0	9.5	7.2	23.9	*3.7	7.7	6.9	4.9
Family planning X500-X510	•	100.0	* 1.5	40.9	46.6	*1.3	*0.8	-	*0.6	7.1	*1.2	-
, , , , , , , , , , , , , , , , , , , ,	•				Avera		visit rate p	er 1,000 p	ersons			
General medical examinationX100		139.6	209.8	79.1	128.1	176.2	224.4	193.4	38.1	58.3	137.6	211.3
Well-baby examination X105		<sup>2</sup> 758.4	<sup>2</sup> 760.1					<sup>2</sup> 758.3		•••		
Prenatal examination, routine X205		<sup>3</sup> 184.2	*3,9	473.6	363.2	*3.6						
Postpartum examinationX215		<sup>3</sup> 18.8	*3.0	44.0	37.6	*0.3						
Breast examination X220		2.2	-	*2.9	*5.6	*7.2	*5.3		-		-	*0.6
Gynecological examination X225		<sup>3</sup> 60.5	*0.2	64.7	117.3	73.6	21.6					
Eye examination X230		28.2	18.2	29.7	26.4	52.1	56.5	13.6	17.1	15.7	31.9	51.3
Blood pressure test X320		56.0	*2.6	*2.3	19.4	136.4	238.2	*0.4	*5.2	30.1	117.5	173.9
Pap smear		<sup>3</sup> 34.8	* 1.0	40.6	67.0	39.3	*11.8			•••		
Prophylactic inoculations X400		19.3	37.5	10.9	11.3	17.2	22.2	37.5	*7.9	11,7	13.6	21.4
Family planning X500-X510		18.8	*2.3	90.0	70.5	*2.4	*2.4	-	*1.2	20.0	*2.8	

<sup>&</sup>lt;sup>1</sup>Based on the reason for visit classification (RVC). See reference 1.

<sup>&</sup>lt;sup>2</sup>Based on the population under 3 years of age. <sup>3</sup>Based on the female population only.

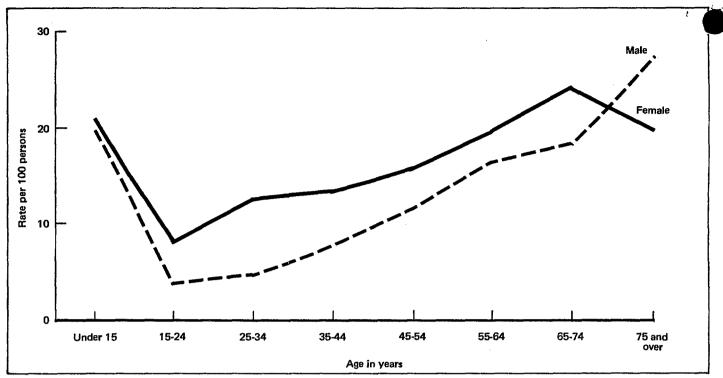


Figure 2. Average annual rate of office visits for general medical examinations, by sex and age of patient: United States, 1977-78

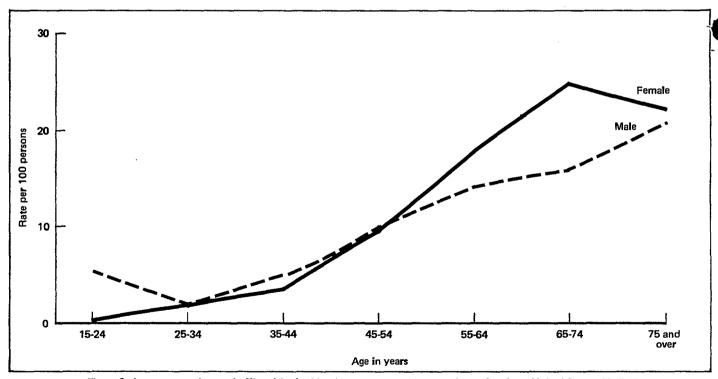


Figure 3. Average annual rate of office visits for blood pressure tests, by sex and age of patient: United States, 1977-78

obstetrics and gynecology were for preventive care, with prenatal examinations the predominant type of visit. Because of the large proportions of general medical examinations and well-baby examinations, about one-fourth of the average pediatrician's practice included visits chiefly for preventive care. Inter-

nists and physicians in general and family practice provided proportionately about the same amount of preventive care (about 14 percent of visits for the former and 13 percent for the latter). However, general medical examinations and blood pressure tests constituted a larger share of preventive care

Table 4. Number of office visits and percent of visits for preventive care, by physician specialty, type of practice, and selected principal reasons for visit: United States, 1977-78

		Physician	Type of	Type of practice		
Principal reason for visit and RVC code 1	General and family practice	Internal medicine	Pediatrics	Obstetrics and gynecology	Solo	Other <sup>2</sup>
		!	Number of vis	its in thousand	s	
All visits	433,936	133,291	114,921	104,412	683,404	471,146
			Percent	of visits		
General medical examination         X100           Well-baby examination         X105           Prenatal examination, routine         X205           Postpartum examination         X215           Breast examination         X220           Gynecological examination         X225           Blood pressure test         X320           Pap smear         X365	4.3 0.9 2.2 0.2 0.0 0.3 3.2 1.0	7.7 0.0 0.1 0.1 5.5 0.4	316.0 48.5 *0.1 - *0.1 *0.0 *0.0	5.5 29.1 3.0 *0.2 11.1 *0.1 2.2	4.6 0.8 2.5 0.3 0.1 0.7 2.4 0.6	5.8 1.7 4.9 0.5 0.1 1.8 1.6
Prophylactic inoculations	0.9 0.4	0.5 0.1	*0.0	*0.2 1.7	1.0 0.6	0.3 1.1

Based on the reason for visit classification (RVC). See reference 1.

visits for internists than they did for general and family practitioners, probably because internists see proportionately more older patients.

Eye examination is not included in table 4 since 94 percent of such visits were to ophthalmologists. Eye examination as a reason for visit was responsible for 19 percent of the visits to ophthalmologists.

According to the data on type of practice shown in table 4, certain types of preventive care are more common in offices with practice arrangements other than solo. Except for breast examinations, prophylactic inoculations, and blood pressure tests, preventive care visits made up a smaller proportion of visits to solo practitioners than of visits to physicians with other practice arrangements. Blood pressure tests were proportionately more frequently the reason for visits to physicians in solo practice than to others. It is not possible to determine from NAMCS data why visits for certain kinds of preventive care were more common in group than in other practice arrangements. However, the availability of more than one specialty may be a factor since, according to an American Medical Association report, multispecialty groups constituted 59 percent of group practice arrangements in 1975.4

Often, patients who visit primarily for illnessrelated problems also seek preventive care. The secondary reason for visit is also recorded on the Patient Record (figure 1). It is noteworthy that the kinds of preventive care shown in table 5 were mentioned as second reasons for 19.6 million visits in 1977-78. There were almost as many visits with breast examination mentioned second as there were with the same examination given as the principal reason. Obtaining a Pap smear was also frequently a second reason for a visit. A well-baby examination or a routine prenatal examination was likely to be the sole reason for a visit since a relatively small number of records listed either of them second.

An exhaustive list of preventive care activities comprises more than the examinations and tests discussed in this report. Depending on the definition of preventive care that is used, NAMCS preventive

Table 5. Number of office visits with preventive care as second reason for visit: United States, 1977-78.

Second reason for visit and RVC code 1	Number of visits in thousands
General medical examination X100	2,936
Prenatal examination, routine	773
Breast examination	
Gynecological examination	
Eye examination	852
Blood pressure test	4,252
Pap smear	4,395
Prophylactic inoculations	1,727
Family planning	2,345

<sup>&</sup>lt;sup>1</sup>Based on the reason for visit classification (RVC). See reference 1.

<sup>2</sup> Includes partnership, group practice, and other.

<sup>3</sup> Includes patients 3 years of age and over. 4 Includes patients under 3 years of age.

<sup>&</sup>lt;sup>4</sup>Goodman, L. J., Bennett, E. H., and Odem, R. J.: *Group Medical Practice in the U.S.*, 1975. Chicago. Center for Health Services Research and Development. American Medical Association, 1976.

care visits also include visits for such reasons as patient education, diet and nutritional counseling, social problem counseling, and glucose level determination. Additional data on these and other types of preventive care as well as on other reasons for visit will be presented in more detail in a forth-

coming report from the *Vital and Health Statistics* series. Questions 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 contract to the National Center for Health Statistics, is responsible 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 by the estimate itself and is expressed as a percent of the estimate. Relative standard errors for aggregate statistics are shown in tables I and II. Standard errors for estimated percents are shown in tables III and IV.

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

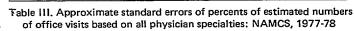
Estimated number of office visits in thousands	Relative standard error in percent
500	24.9
1,000	17.7
2,000	12.7
5,000	8.3
10,000	6.2
20,000	4.8
50,000	3.8
200,000	3.1
1,000,000	2.9

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

Estimated number of office visits in thousands	Relative standard error in percent
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).



Base of percent	Estimated percent							
(number of office visits in thousands)	1 or 99	5 or 95	10 or 90	20 or 80	30 or 70	50		
	Star	ndard e	rror in	percen	tage po	ints		
500	2.5	5.4	7.4	9.9	11.4	12.4		
1.000		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	Estimated percent							
(number of office visits in thousands)	1 or 99	5 or 95	10 or 90	20 or 80	30 or 70	50		
	Star	ndard e	rror in	percen	tage po	ints		
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		1.8	2.5	3.3	3.8	4.2		
10,000		1.3	1.8	2.4	2.7	2.9		
20,000		0.9	1.2	1.7	1.9	2.1		
50,000		0.6	0.8	1.1	1.2	1.3		
100,000		0.4	0.6	0.7	0.9	0.9		
400.000		0.2	0.3	0.4	0.4	0.5		

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

### **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.

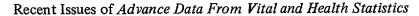
Office.—An office is a place that the physician identifies as a location for his ambulatory practice. Responsibility over time for patient care and professional services rendered there generally resides with the individual physician rather than an institution.

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.

#### **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



No. 68. Stroke Survivors Among the Noninstitutionalized Population 20 Years of Age and Over: United States, 1977 (In Preparation)

No. 67. Headache as the Reason for Office Visits, National Ambulatory Medical Care Survey: United States, 1977-78 (Issued: January 7, 1981)

No. 66. 1979 Summary, National Ambulatory Medical Care Survey (Issued: March 2, 1981)

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)

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