

Patterns of Ambulatory Care in Obstetrics and Gynecology: The National Ambulatory Medical Care Survey United States, January 1980-December 1981

Data on the ambulatory medical care provided during office visits to obstetriciangynecologists are presented. Individual practice profiles are drawn for different age groups of physicians, for those in the four major geographic regions, for those in metropolitan and nonmetropolitan areas, and for those in solo and group practices. Patterns of medical care are also described according to the age of the patient and prior visit status. Descriptors of practice include patients' reasons for visit and diagnoses rendered by physicians. Data on the utilization of patient management techniques include diagnostic services, medication therapy, and nonmedication therapy.

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## Symbols

- --- Data not available
- ... Category not applicable
- Quantity zero
- 0.0 Quantity more than zero but less than 0.05
- Z Quantity more than zero but less than 500 where numbers are rounded to thousands
- \* Figure does not meet standards of reliability or precision (more than 30percent relative standard error)
- # Figure suppressed to comply with confidentiality requirements

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# Patterns of Ambulatory Care in Obstetrics and Gynecology The National Ambulatory

Medical Care Survey

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

# Introduction

## **Background and purpose**

There were an estimated 109,035,000 visits to officebased physicians in the practice of obstetrics and gynecology in the conterminous United States during the 2-year period 1980-1981. Almost all of these visits were made by females (99 percent), and 87 percent of the patients were 15-44 years of age. Thus, the characteristics of visits to these physicians form a pattern of medical care provided chiefly to women in the childbearing years.

This report, based on visits to obstetrician-gynecologists (Ob-Gyn's), is the third in a series of reports documenting the physician, organizational, and clinical characteristics of visits to various medical and surgical specialists. Previous publications highlighted the visit characteristics of general and family practice and pediatrics.<sup>1,2</sup> Like the first two reports, data from the National Ambulatory Medical Care Survey were used to develop the profile of health care.

The data were gathered by the National Center for Health Statistics by means of the National Ambulatory Medical Care Survey, a sample survey of physicians' office visits conducted annually through 1981 by the Division of Health Care Statistics. Data collection and processing for the 1980 and 1981 National Ambulatory Medical Care Surveys were the responsibility of the National Opinion Research Center at the University of Chicago. Sample selection was accomplished with the assistance of the American Medical Association and the American Osteopathic Association.

A brief report, based on 1975 estimates of visits to Ob-Gyn's was published in Advance Data from Vital and Health Statistics No. 20.<sup>3</sup> However, because the reason for visit coding system was revised in 1977 and the Ninth Revision of the International Classification of Diseases was introduced for coding diagnoses in 1979, data from that report may not be strictly comparable to those in this report.

Detailed information on the background and methodology of the survey was published in *Vital and Health Statistics*, Series 2 No. 61.<sup>4</sup> A description of the 1980 and 1981 surveys, including statistical design, data collection and processing, and estimation procedures, may be found in appendix I of this report. Technical details regarding reliability of estimates are also given in appendix I. Definitions of terms used in the survey are provided in appendix II. Facsimiles of survey instruments appear in appendix III. Prior to data presentation, the scope of the survey and limitations of the data are described briefly to assist the reader in interpreting the estimates.

## Scope of the survey

The basic sampling unit for the National Ambulatory Medical Care Survey (NAMCS) is the physician-patient encounter or visit. The current scope of NAMCS includes all office visits within the conterminous United States made by ambulatory patients to nonfederally employed, office-based physicians as classified by the American Medical Association or the American Osteopathic Association. The NAMCS physician universe excludes anesthesiologists, pathologists, and radiologists, and physicians principally engaged in teaching, research, or administration. Telephone contacts and visits conducted outside the physician's office also are excluded.

#### Source and limitations of the data

The data in this report are based on information obtained from a patient encounter form, the Patient Record (see appendix III), for a sample of visits provided by a national probability sample of office-based physicians. The combined samples for the 1980 and 1981 NAMCS included 5,805 physicians, 1,124 of whom were ineligible because they were out of scope at the time of the survey. Of 4,681 eligible physicians, 3,676 (78.5 percent) participated (see appendix I). There were 484 Ob-Gyn's in the sample, of whom 71 were out of scope. Of 413 eligible Ob-Gyn's, 350 participated (84.7 percent).

Sample physicians listed all office visits during a randomly assigned 7-day reporting period. During the 2-year period, information was recorded on Patient Records for a systematic random sample of 89,447 visits including 9,214 visits to Ob-Gyn's.

The 1980 and 1981 NAMCS were conducted in identical fashion using the same instruments, definitions, and procedures. The 2 years of data were combined to provide more reliable estimates. Therefore, the reader should note that estimates of numbers of visits and drug mentions contained in this report are for a 2-year period, but ratios and rates represent average annual estimates.

The information in this report is derived from a complex sample survey, and the appendixes should be reviewed to

insure a proper understanding and interpretation of the statistical estimates presented. Since the statistics are based on a sample of office visits rather than on all visits, they are subject to sampling errors. Therefore, particular attention should be paid to the section entitled "Reliability of Estimates." Charts on relative standard errors and instructions for their use are also given.

## Visits by specialty

Obstetrics and gyr.cology ranked fourth among all specialties in the number of office visits, and accounted for about 9 percent of the total (figure 1). However, obstetrics and gynecology ranked first among surgical specialties. When medical and surgical specialties are compared on the basis of visit volume, the customary setting of professional activity should be taken into consideration. The number of office encounters with surgical specialists may be less than those with medical specialists because a substantial portion of patient care rendered by the surgical specialist is done in a hospital. For example, it was reported in a study conducted by the Division of Research in Medical Education of the University of Southern California School of Medicine that 24 percent of all patient encounters by Ob-Gyn's were in the hospital, compared with 14 percent of those by general practitioners, and 49 percent of those by general surgeons.<sup>5-7</sup>

Of all visits by women 15-44 years of age, 30 percent were to obstetrician-gynecologists (figure 2). This proportion was exceeded only by the 32 percent of such visits made to general and family practitioners.



Figure 1. Percent distribution of office visits, by physician specialty: United States, January 1980-December 1981





# Physician and practice characteristics

#### Type and location of practice

There were proportionately fewer visits to Ob-Gyn's in solo practice (45 percent) than to those in other types of practice (55 percent) (table A). However, in contrast to the growing trend toward group<sup>a</sup> practice reported by the American Medical Associaton,<sup>8</sup> the proportion of visits to Ob-Gyn's in solo practice in 1980-81 represents an increase from the 39 percent reported in 1975.<sup>3</sup> In this respect Ob-Gyn's differed from the first three leading specialists where visits to physicians in solo practice decreased between 1975 and 1980-81.<sup>1-</sup> 2,9

In the Northeast and North Central Regions proportions of visits to multiple practice organizations exceeded those to solo practices, but in the West Region the reverse was true. There were also proportionately more visits to solo practices in the South Region, but the difference was not statistically significant.

Similar to the distribution of all visits to Ob-Gyn's, the majority of visits in metropolitan areas were to multiplemember practices (58 percent). However, more than half (55 percent) of the visits in nonmetropolitan areas were to solo practice.

Visits to Ob-Gyn's in solo practice and other types of practice are distributed by selected characteristics in table 1. In this table, and others, statistics on "all" visits provide a general pattern of care by Ob-Gyn's. However, other statistics in the tables are based on specific variables such as type or location of practice.

Patients were typically females in the childbearing ages of 15-44 years, and this pattern did not vary appreciably by practice organization. There were proportionately more visits by patients 45 years and over to physicians in solo practice (14 percent) than to others (11 percent). This may be related to the tendency of older patients to consult older physicians, who are more likely to practice alone. This relationship is discussed in the section "Physician characteristics."

About 71 percent of the visits to Ob-Gyn's were made by patients the physician had seen before returning for treatment of continuing problems, regardless of the type of practice. Only 12 percent were new patients. For Ob-Gyn's, the ratio of return visits to initial visits was higher than the NAMCS average for all specialties.

Table A. Number of office visits t	o obstetrician-gynecologists by type of
practice, and percent distribution	of office visits by type of practice,
according to location of practice:	United States, January 1980-
December 1981	•

	Number of	Type of practice		
Location of practice	visits in thousands	Total	Solo	Other <sup>1</sup>
		Pe	rcent distribu	tion
All visits	109,035	100.0	44.5	55.5
Geographic region				
Northeast North Central South West	26,385 28,935 30,921 22,794	100.0 100.0 100.0 100.0	41.1 33.5 51.3 53.1	58.9 66.5 48.7 46.9
Area				
Metropolitan Nonmetropolitan	89,110 19,925	100.0 100.0	42.2 54.8	57.8 45.2

<sup>1</sup>Includes partnership, group, and other types of practice.

Nonillness care occupies a prominent place in the Ob-Gyn's practice as evidenced by the 62 percent of visits in which the physician selected that category as the major reason for the visit. The same proprotion (62 percent) was found for the diagnostic, screening, and preventive module when the physician selected this category as the patients' principal reason for visit. In NAMCS, patients' reasons for visit, expressed as closely as possible in the patients' own words, are recorded by the physician in item 6 of the Patient Record form. The reason given by the patient, which in the physician's judgment is most responsible for the visit, is the first-listed or principal reason for the visit. Reasons for visit are coded and grouped in eight modules according to a classification system that is detailed in A Reason for Visit Classification for Ambulatory Care (RVC).<sup>10</sup> These modules are listed in table 1. (Specific reasons for visit are discussed in the section "Patient condition and management.")

Practice profiles varied somewhat based on the major reason for visit. Although nonillness care was preeminent in all types of practice, visits to physicians in multiple practice were more likely to be for nonillness care (64 percent) than those to physicians in solo practice were (59 percent). On the other hand, physicians in solo practice treated more cases of routine chronic problems (10 percent) than physicians in multiple practice did (7 percent). These results may be related to the larger proportion of visits by patients 45 years of age and over to solo practice physicians, because the

<sup>&</sup>lt;sup>a</sup>The American Medical Association defines group practice as the provision of medical services by three or more physicians. In this report the terms "group" and "multiple" practice are used to describe provision of medical services by more than one physician.

type of care rendered is also related to patient age. This is discussed in the section "Patient characteristics."

As expected, proportions of visits with certain diagnostic services were higher for Ob-Gyn's than for the average of all physicians in NAMCS. Forty-three percent of Ob-Gyn's visits included clinical laboratory tests, 29 percent included Pap tests, and 68 percent included blood pressure checks; in contrast to the NAMCS averages of 22 percent, 7 percent, and 34 percent, respectively. Ob-Gyn's also exceeded the average in their proportion of visits with family planning services (16 percent of Ob-Gyn's visits as opposed to 2 percent overall).

Except for the limited history and/or examination that physicians in multiple practice were more likely to include in their visits than solo physicians were, differences in proportions of diagnostic services and nonmedication therapy did not differ significantly by type of practice.

Probably because of the high rate of visits for nonillness care. Ob-Gyn's had the lowest rate of medication therapy of the four leading specialties.<sup>11</sup> Ob-Gyn's had 9 percent of all NAMCS visits but only 5 percent of all drug mentions. It was the only one of the leading specialties in which no medication was indicated in the majority of visits (58 percent). Physicians in multiple-member practice (who also had proportionately more nonillness care visits) were more likely to prescribe no medication (62 percent) than physicians in solo practice were (54 percent). When medication was mentioned in office visits, no more than one drug was named in 30 percent of all visits. Physicians in solo practice prescribed a single drug proportionately more often (33 percent of visits) than other physicians did (29 percent).

Estimates of drug utilization in NAMCS are based on the physicians' entries on the Patient Record form. These entries may be brand<sup>b</sup> or generic names of prescription or

<sup>b</sup>The use of brand or trade names is for identification purpose only and does not imply endorsement by the Public Health Service or the U.S. Department of Health and Human Services.

over-the-counter drugs, or a therapeutic effect. Drug mentions include all new or continued drugs listed in item 11. Physicians may make up to eight such entries. The methodology used to collect and process this drug information is described in Vital and Health Sstatistics, Series 2-No. 90.12

In addition to counting the number of drugs prescribed during a visit and the percent of visits in which one or more drugs were ordered (drug visits), drug utilization may be measured by two utilization rates (table B). The drug mention rate is the number of drug mentions divided by all visits. The drug intensity rate is the number of drug mentions divided by the number of drug visits. Differences in drug mention rates and drug intensity rates by type of practice were not statistically significant.

Drug mentions are listed by the therapeutic effects they are intended to produce in table 2. Therapeutic categories are based on the American Hospital Formulary Service classification system (AHFS) (see appendix IV).<sup>13</sup> In the NAMCS drug file each drug entry was assigned to one AHFS category, although for some drugs more than one therapeutic effect is possible. The range of drugs used by Ob-Gyn's is narrower than the average use in NAMCS. Five categories constituted 61 percent of all mentions. Hormones and synthetic substitutes (26 percent), skin and mucous membrane preparations (11 percent), vitamins (19 percent), and blood formation and coagulation (5 percent) were mentioned proportionately more often by Ob-Gyn's than by all other physicians. Anti-infective agents (16 percent) were used in about the same proportion in Ob-Gyn's visits as in those of all other physicians, but other classes of drugs were used less frequently than average. The distribution of therapeutic categories by type of practice were similar. Specific drugs are discussed in the section "Patient condition and management."

The limited use of drug therapy by Ob-Gyn's is a reflection of the 63 percent of visits with principal diagnoses in the supplementary classification, which consists mainly of health services and examinations where medication is not

Table B. Number of office visits to obstetrician-gynecologists, number and percent of drug visits, number of drug mentions, drug mention rate per visit, and drug intensity rate per drug visit, by type and location of physician's practice: United States, January 1980-December 1981

Type and location of practice	Number of visits in thousands	Drug visits in thousands <sup>1</sup>	Percent drug visits	Number of drug mentions in thousands	Drug mention rate per visit <sup>2</sup>	Drug intensity rate per drug visit <sup>3</sup>
Type of practice						
All types of practice	109,035	45,369	41.6	61,204	0.56	1.35
Solo	48,512	22,528	46.4	31,373	0.65	1.39
Other⁴	60,522	22,840	37.7	29,832	0.49	1.31
Geographic region						
Northeast	26,385	9,756	37.0	12,063	0.46	1.24
North Central	28,935	11,024	38.1	13,926	0.48	1.26
South	30,921	15,970	51.7	23,425	0.76	1.47
West	22,794	8,618	37.8	11,791	0.52	1.37
Area						
Metropolitan	89,110	36,188	40.6	48,576	0.55	1.34
Nonmetropolitan	19,925	9,181	46.1	12,628	0.63	1.38

<sup>1</sup>A visit in which 1 or more drugs were prescribed. <sup>2</sup>Drug mentions divided by number of visits.

<sup>3</sup>Drug mentions divided by number of drug visits.

<sup>4</sup>Includes partnership, group, and other types of practice.

generally indicated. This is in contrast to the 18 percent of all physicians' visits in this category. The principal (firstlisted) diagnoses rendered by physicians during visits are listed by categories based on the *International Classification* of Diseases, 9th Revision, Clinical Modification (ICD-9-CM)<sup>14</sup> in table 1. Consistent with the pattern of visits based on the reason for visit, diagnoses in the supplementary classification group were more commonly rendered in multiple practice situations than in solo practices. Diseases of the genitourinary system was the second largest category of diagnoses treated by Ob-Gyn's (19 percent) and this exceeded the national average of 6 percent. Proportions of this category were similar for all types of practice.

In about 3 percent of all NAMCS visits, the duration of the visit was shown as 0 minutes, indicating that the patient was seen by a member of the physician's staff rather than by the physician. However, for Ob-Gyn's, less than 1 percent of the visits were so recorded. When patients *were* seen by the physician, the average encounter lasted 13.9 minutes. The mean duration varied by the patient's visit status and diagnosis, but not by the type of practice visited. Mean duration in terms of diagnosis and visit status is explored in the section "Patient condition and management."

A higher than average number of Ob-Gyn's visits culminated with appointments for return visits (76 percent, compared with the NAMCS average of 61 percent). This disposition, together with the high proportion of return visits and the large number of visits for preventive care, suggests careful patient surveillance by Ob-Gyn's as well as patient compliance. This pattern was evident regardless of type of practice.

Patterns of care did not vary appreciably among geographic regions. There were proportionately fewer visits to Ob-Gyn's in the West Region than in other regions, which is consistent with the NAMCS average for all specialties. Less visits to Ob-Gyn's (and to all physicians) in the West Region (excluding Alaska and Hawaii) may be expected because statistics of the American Medical Association indicate proportionately fewer office-based physicians in that area than in the other three regions.<sup>15</sup>

Physicians in metropolitan areas treated proportionately more patients 25-44 years of age (58 percent) than physicians in nonmetropolitan areas did (50 percent). But the latter saw more patients 15-24 years of age (36 percent) than the former (30 percent). These differences may be due to the distribution of the population in these areas, or to a tendency of women in metropolitan areas to delay childbearing because prenatal care is a large part of the Ob-Gyn's practice. Visits by diagnoses are discussed in the section "Patient condition and management."

Management of patients in metropolitan and nonmetropolitan areas varied for only one diagnostic service used by Ob-Gyn's, and for some forms of therapy provided. Compared with physicians in nonmetropolitan areas, those in metropolitan locations performed proportionately more Pap tests (31 percent, compared with 23 percent) and provided more family planning therapy (17 percent, compared with 13 percent) (table 3). Physicians in nonmetropolitan areas were more likely to provide medical counseling (31 percent, compared with 24 percent), and to prescribe drugs (46 percent were drug visits, compared with 41 percent for metropolitan physicians).

Relatively short visits (less than 11 minutes) were more likely in nonmetropolitan offices (63 percent) than in metropolitan offices (46 percent). Relatively long visits (16 minutes and longer) were proportionately more numerous in metropolitan offices.

## Physician age and sex

The relationship of the physician's age and sex to the organization and content of practice is explored in this section. On the average, Ob-Gyn's had 68.5 patient visits per week (table C). Except for physicians 65 years of age and over who had 40.6 visits per week, the age of the physician had little observable effect on the number of visits. Like female general and family practitioners and pediatricians<sup>1,2</sup>, female Ob-Gyn's saw fewer patients in an average workweek (49.0 office visits) than their male counterparts did (69.5). The mean duration of visits for physicians up to 64 years of age hovered around the average of 13.9 minutes, but for those 65 years and over the average visit lasted 17.9 minutes. Similar to female physicians in general and family practice and pediatrics, female Ob-Gyn's also had longer visits on the average than males did.

Characteristics of visits to Ob-Gyn's are shown for physician age groups in table 3. Drug mentions are listed by therapeutic category and physician age groups in table 4. The reader will note that in previous tables the rounded total of visits was about 109.0 million and the number of drug mentions was about 61.2 million. However, in tables 3 and 4 the comparable totals are 107.2 million and 60.1 million, respectively. This is because tables relating to the age of the physician do not include visits to doctors of osteopathy, because data on the age of these physicians were unavailable. It is not likely that the distribution of visits with the omission of the 1.8 million visits to doctors of osteopathy would differ significantly from the distribution that includes them. Tabulations are not shown separately

Table C. Average number of office visits per week and mean duration of visits to obstetrician-gynecologists, by age and sex of physician: United States, January 1980-December 1981

Age and sex of physician <sup>1</sup>	Average number of visits per physician per week	Mean duration of visit in minutes
Age		
All ages	68.5	13.9
Under 35 years	68.1	12.0
35-44 years	72.3	14.6
45-54 years	72.1	13.2
55-64 years	68.4	13.8
65 years and over	40.6	17.9
Sex		
Female	49.0	17.1
Male	69.5	13.8

<sup>1</sup>Does not include doctors of osteopathy.

Table D. Number of office visits to obstetrician-gynecologists, number and percent of drug visits, number of drug mentions, drug mention rate per visit, and drug intensity rate per drug visit, by age and sex of physician: United States, January 1980-December 1981

Age and sex of physician <sup>1</sup>	All visits in thousands	Drug visits in thousands <sup>2</sup>	Percent drug visits	Drug mentions in thousands	Drug mention rate per visit <sup>3</sup>	Drug intensity rate per visit <sup>4</sup>
Age						
All ages	107,263	44,701	41.7	60,112	0.56	1.34
Under 35 years	7,876	3,690	46.9	4,434	0.56	1.20
35-44 years	37,780	14,389	38.1	19,038	0.50	1.32
45-54 years	37,354	15,168	40.6	19,545	0.52	1.29
55-64 years	18,585	7,625	41.0	11,002	0.59	1.44
65 years and over	5,668	3,830	67.6	6,093	1.07	1.59
Sex						
Female	3,969	2,072	52.2	3,149	0.79	1.52
Male	103,295	42,629	44.8	56,964	0.55	1.34

<sup>1</sup>Does not include doctors of osteopathy.

<sup>2</sup>A visit in which 1 or more drugs were prescribed. <sup>3</sup>Drug mentions divided by number of visits.

<sup>4</sup>Drug mentions divided by number of drug visits.

Table E. Percent distribution of office visits to obstetrician-gynecologists by type and location of physician's practice, according to sex of physician; United States, January 1980-December 1981

		Sex of physiciar	ז
Type and location of physician's practice	Both sexes	Female	Male
	P	ercent distributio	on
Total	100.0	100.0	100.0
Type of practice			
Solo	44.5	63.5	43.8
Other <sup>1</sup>	55.5	36.5	56.2
Geographic region			
Northeast	24.2	27.7	24.1
North Central	26.5	31.9	26.3
South	28.4	27.1	28.4
West	20.9	13.3	21.2
Area			
Metropolitan	81.7	96.0	81.2
Nonmetropolitan	18.3	4.0	18.8

<sup>1</sup>Includes partnership, group, and other types of practice.

for female and male physicians in tables 3 and 4, because detailed analysis of the relatively small number of visits to female physicians (about 4.0 million, compared with 105.1 million to males) would not provide reliable statistics in all areas of concern. However, table D contains information on medication therapy by sex of the physician. The statistics on type and location of practice in table E are also shown separately for female and male physicians.

The relationship between the age of the physician and the age of the patient that was demonstrated in the two previous specialty profiles<sup>1,2</sup> persisted for obstetrics and gynecology. Although the patient load of all Ob-Gyn's is dominated by patients 15-44 years of age, the proportion of visits by patients in that age group decreased with the advancing age group of the physician. Concomitantly, proportions of visits by patients 45 years and over increased. This phenomenon can be seen in figure 3. Another characteristic that appears to be related to the age of Ob-Gyn's, as well as of pediatricians and general and family practitioners, is the type of practice. As illustrated in figure 4, proportions of visits of physicians in solo practice increased from the age group 45-54 years on. Proportions of multiple-practice visits are likely to be higher at younger ages. This is consistent with projections made by the American Medical Association.<sup>8</sup> That is, as young physicians enter the practice of medicine, they tend to join group practices.

When the age group of patients changes in accordance with the age group of the physician, as shown in figure 3, the clinical characteristics of the visits change in tandem. Nonillness care (principally prenatal care and gynecological examinations) constituted 75 percent of the visits to physicians under 35 years of age in stark contrast to the 47 percent for the same purposes to physicians 65 years of age and over. Except for a plateau between 35 and 54 years, the proportion of visits for nonillness care decreased from one age group to the next older, as did principal reasons for visit in the diagnostic, screening, and preventive module. On the other hand, physicians over 65 years of age were more likely to see patients who presented symptoms or complaints (40 percent) than younger physicians were (26 percent of visits to those in age group 55-64 years, and 16 percent to those under 35 years).

Although a one-to-one association between the principal reason for visit and the principal diagnosis is not expected in NAMCS, it is clear that they are highly correlated within specific physician age groups. For the youngest age group of physicians the supplementary classification constituted 75 percent of the visits. For the oldest group the comparable proportion was 33 percent. Thus, the relationship demonstrated among physician age group, the major reason for the visit assigned by the physician, and the principal reason for the visit given by the patient was preserved. Furthermore, proportions of visits with diagnoses in the category of diseases of the genitourinary system increased with the increasing age group of the physician, suggesting also an association between such diagnoses and the age of the patient. Patient



Figure 3. Percent of office visits to obstetrician-gynecologists by age of patient and age of physician: United States, January 1980-December 1981

age and diagnosis are discussed in the section "Patient condition and management."

Physicians over the age of 44 years were less likely to use the limited history and/or examination for diagnosis than younger physicians were, but they were more likely to give Pap tests. Probably because they saw proportionately more patients over 44 years of age, physicians over 54 years of age were less likely to provide family planning therapy than younger physicians whose patients were chiefly in the childbearing years were. Physicians 65 years of age and over prescribed one or more drugs (drug visits) in 68 percent of their office visits, a larger proportion than that of their younger counterparts. However, when drugs were used for therapy, the average number prescribed during a visit was similar for all age groups of physicians because the drug intensity rates did not differ significantly among them (table D).

An inverse relationship between the duration of the visit and the average number of visits per week was observed.



Figure 4. Percent of office visits to obstetrician-gynecologists, by type of practice and age of physician: United States, January 1980-December 1981

The oldest group of physicians, who had the smallest average number of visits per week (40.6, table C) had the highest proportion of relatively long visits (16 minutes or more). However, younger physicians with a higher number of average weekly visits had proportionately more short visits (less than 11 minutes) than physicians 65 years of age and over did. This does not appear to be an isolated statistic. The mean duration of visits to female Ob-Gyn's with average weekly visits of 49.0 was 17.1 minutes; however, males saw 69.5 patients for an average duration of 13.8 minutes. These data suggest that when estimating physician productivity a valid measure would be a combination of the number and the duration of visits. The usefulness of this idea was demonstrated in an earlier report from NAMCS, "Characteristics of Visits to Female and Male Physicians," in which it was shown that although female physicians in general and family practice and internal medicine saw fewer patients in the average workweek than males in the same specialties did, they spent the same average number of hours per week in direct patient care.16

Female Ob-Gyn's in solo practice had proprionately more visits than their male counterparts did (44 percent). Visits to female Ob-Gyn's in metropolitan areas were proportionately

more numerous than those to male Ob-Gyn's in similar locations (96 percent, compared with 81 percent). The data on solo practice are similar for female Ob-Gyn's and pediatricians. The tendency towards metropolitan location is similar for female Ob-Gyn's, pediatricians, and general and family practitioners.<sup>1,2</sup> In general the patient and clinical characteristics of visits to female Ob-Gyn's were similar to those of male Ob-Gyn's with a few exceptions. There were no visits to female physicians by male patients. Female Ob-Gyn's were more likely than male Ob-Gyn's were to have new patients and to use PAP tests, laboratory tests, blood pressure checks, and diet counseling during visits. The difference in the proportions of drug visits to female and male Ob-Gyn's (table D) was not statistically significant.

# **Patient characteristics**

The demographic characteristics of female patients who visited obstetrician-gynecologists are presented in table 5. The number of visits made by male patients during the 2-year period is so small (1.1 million) compared with those made by female patients (107.9 million) that any discussion of visit characteristics is, for all intents and purposes, a discussion of visits by females. The unreliability of some estimates based on visits by male patients precludes extensive analysis. However, because there may be interest in knowing why male patients visit specialists who treat women primarily, some of the more salient characteristics of visits by males is provided in the section "Patient condition and management."

# Age, race, and ethnicity

Patients 15-44 years of age constituted 88 percent of females' visits to Ob-Gyn's in contrast to 45 percent of females' visits to all specialists, underscoring the primary focus of obstetrical and gynecological practice. Proportions

of visits to Ob-Gyn's by this age group did not vary by race or ethnicity.

In NAMCS about 6 percent of all females' visits to Ob-Gyn's were made by Hispanic patients, compared with 5 percent of females' visits to all specialists, a small but statistically significant difference. Black females visited Ob-Gyn's in about the same proportion as they visited all specialists.

### **Visit rates**

As expected, the highest visit rates were for patients 25-44 years of age (about 95 visits per 100 females that age in the population), followed by 81 visits for each 100 females 15-24 years of age. Although general visit rates did not vary significantly by race or ethnicity, black females 15-24 years of age visited at a lower rate than white females did, and Hispanic females 25-44 years of age visited at a lower rate than non-Hispanic females did.

# Patient condition and management

In this section, the clinical characteristics of visits are presented in relation to the age and prior visit status of patients. Three age groups are used in this section-under 25 years, 25-44 years, and 45 years and over. Because patients under 15 years of age constituted less than 1 percent of all visits, and those 65 years and over about 2 percent of all visits, separate and meaningful analysis for these age groups was not feasible. Condition of the patient is explored in tables 6-11 by means of patients' reasons for visit and physicians' diagnoses. In tables 12-15 statistics are presented on patient management exemplified by the Ob-Gyn's use of diagnostic tools, nonmedication therapy, and medication therapy, as well as the duration and disposition of the visit. In table 16, patients' reasons for visit are analyzed by the diagnostic services ordered or provided in their presence. The nonmedication therapy, number of medications ordered or prescribed, and the duration and disposition of visits for patients in the four leading diagnostic categories are shown in table 17. To conclude the description of patient management, the mean duration of visits for selected principal diagnoses is shown in table 18.

## **Patient age**

By definition, obstetrics is the medical management of women during pregnancy, childbirth, and the puerperium. Gynecology is the treatment of diseases of female genital, urinary, and rectal organs. The patterns of care that emerged from the analysis of ambulatory care rendered in the dual specialty of obstetrics and gynecology highlight two of the significant medical phases in women's lives—the childbearing years, menopause and postmenopause. The characteristics of visits to Ob-Gyn's by patients in the age groups in this report tend to form clusters related to these life cycles.

Nonillness care was the major reason for visit regardless of age group. However, after 44 years of age the proportion of visits in this category dropped by about a third, from 64 percent of visits by patients 25-44 years to 38 percent by patients 45 years and over (table 6). The principal reasons for visits expressed by the oldest group were more likely to be symptomatic (38 percent) or for treatment of a previously diagnosed conditon (10 percent) than those given by younger patients were. Younger patients proportionately more frequently requested diagnostic or preventive care. Regardless of the age group, most visits were by patients the physician had seen before and were returning for care of a continuing problem. New patients were most likely to be those under 25 years of age (16 percent, compared with 10 percent of older groups). The ratio of return visits to initial visits did not differ within sampling variability for age groups 25-44 years and 45 years and over. However, it can be seen in tables 7 and 8 that the relatively high return visit ratios for these age groups were probably due to different reasons. The most frequent specific principal reasons for visit expressed by patients are listed in descending order of number of visits in table 7. In table 8 principal reasons for visit are ranked separately within age groups. The reader is cautioned that some estimates may not differ from other near estimates due to sampling variability. Therefore, ranks may be somewhat artificial.

Routine prenatal examinations were given as the principal reason for visit in 35 percent of all office encounters. The second leading reason (10 percent of visits) was gynecological examination. Three family planning reasons together accounted for 4 percent of the visits. However, family planning services were actually provided more frequently than the reason for visit alone indicates because they were often indicated as a diagnosis or nonmedication therapy when patients visited for other reasons. Contraceptive management is discussed in the section on diagnosis, and family planning is included in the analysis of nonmedication therapy. Similarly, a Pap smear, which was the patient's reason for 2 percent of the visits, actually was more frequently indicated on the form as a diagnostic service than it was a reason for the visit. A distinguishing characteristic between a service that is given as a reason for the visit and one that is listed as therapy is often that it is an indication of the patient's motivation in the former and the physician's judgment in the latter.

The same five leading principal reasons for visit (prenatal examination, gynecological examination, postpartum examination, postoperative visit, general medical examination) accounted for 59 percent of visits by patients under 25 years of age and 60 percent of those by patients 25-44 years of age (table 5). Postoperative visits and examinations constituted 36 percent of the principal reasons by patients 45 years of age and over. Patients 45 years of age and over were more likely to visit for gynecological examinations (18 percent) than younger patients were (8 percent). The oldest group also had more postoperative visits (9 percent), compared with 4 percent for patients under 45 years).

The relationship of patterns of obstetrical and gynecological care to the age of the patients is further reflected in the principal diagnosis categories shown in table 9. For patients

45 years of age and over there were proportionately more visits for neoplasms; endocrine, nutritional, metabolic diseases and immunity disorders; diseases of the circulatory system; and diseases of the genitourinary system. For patients under 45 years of age visits in the supplementaty classification were proportionately higher. The detailed breakdown of the supplementary group of health services that is provided in table F reveals that the dominance of visits in this category by patients under 45 years of age was due mainly to the preponderance of visits for normal pregnancy. However, for patients over 44 years of age, proportionately more visits in this category were for followup examination following surgery, general medical examination, and gynecological examination than those of younger patients were. Contraceptive management accounted for a larger share of the supplementary classification for patients under 45 years of age • (6 percent) than of those older (about 1 percent).

When developing a profile of obsterrical and gynecological practice, it is instructive to examine the most frequent diagnoses in terms of their total distribution among specialties. Diseases of the genitourinary system constituted 19 percent of visits to Ob-Gyn's, and three health services (normal pregnancy, gynecological examination, contraceptive management) together accounted for 49 percent (table 10). Of the total visits to physicians in all specialties for treatment of diseases of the genitourinary system, Ob-Gyn's had the largest proportion (39 percent) (figure 5). Of all visits for normal pregnancy, 77 percent were to Ob-Gyn's; 85 percent of all gynecological examinations were to Ob-Gyn's; and 76 percent of all visits for contraceptive management were to Ob-Gyn's.

The most frequent specific diseases of the genitourinary system diagnosed during visits may be found in table 10. Inflammatory disease of cervix, vagina, and vulva (4 percent); disorders of menstruation (3 percent); and menopausal and postmenopausal disorders (2 percent) were among the leading conditions. For patients under 25 years and 25-44 years of age the first two genitourinary disorders accounted for 4 percent and 3 percent of each group's visits, respectively. Menopausal and postmenopausal disorders was the most common diagnosis rendered for patients 45 years of age and over, and it constituted 14 percent of their visits. Patients over 44 years of age were more likely to visit for inflammatory disease of ovary, fallopian tube, pelvic cellular tissue, and peritoneum (4 percent) than patients 25-44 years old were (1 percent). Other problems that were proportionately more frequent in visits by the oldest patients than in those by the two younger groups were uterine leimyoma (benign neoplasm, fibroid, 4 percent) and genital prolapse (3 percent).

Because of the nature of the conditions treated in obstetrical and gynecological practice, it differs from other specialties in the provision of certain diagnostic services. Visits which included a Pap test ranged from 23 percent of those made by patients under 25 years of age to 47 percent of those by patients 45 years and older (table 12). By contrast, Pap tests performed by all other specialists were included in 4 to 5 percent of visits by females 15-64 years of age and 2 percent of those by females 65 years of age and over (figure 5). There was a similar decrease in Pap tests used by Ob-Gyn's for patients over 64 years of age. When the proportion of Pap tests performed by Ob-Gyn's is plotted separately for patients 45-64 years of age and those 65 years of age and over, as shown in figure 6, it is apparent that they occur with proportionately less frequency in visits by the older group. Higher than average proportions of clinical laboratory tests were ordered or provided by Ob-Gyn's for females in all age groups (figure 7), although such tests were ordered proportionately less often for patients 65 years of age and over than for the younger age groups. Blood pressure was measured in proportionately more of females' visits to Ob-Gyn's (68 percent) than in females' visits to all other specialists (34 percent), and percents of Ob-Gyn's visits remained constant regardless of the patient's age group. By contrast, proportions of visits with blood pressure checks made by all other specialists increased with the patient's

Table F.	Number of office visits to	obstetrician-gynecologists,	and percent of office visits,	by selected principal	diagnoses in the	e supplementary
classifica	ation and age of patient:	January 1980-December 1	981			7

	Age of p	patient
Selected principal diagnosis and ICD-9-CM code1	Under 45 years	45 years and over
	Number in t	housands
All visits	64,134	3,986
	Percent c	of visits
Normal pregnancy	61.2	. *5.7
Postpartum care and examination '	5.3 5.5	 *0.6
Prescription or surveillance of oral contraceptives	1.2	-
Other (e.g., family planning advice)	1.0	-
Insertion or surveillance of intrauterine contraceptive device	1.8	*0.6
Followup examination following surgery	4.7	22.9
General medical examination	4.1 13.0	14.2 40.6

<sup>1</sup>Based on International Classification of Diseases, 9th Revision, Clinical Modification.<sup>14</sup>



Figure 5. Percent distribution of office visits, by selected principal diagnoses and physician specialty: United States, January 1980-December 1981

advancing age group, ranging from 28 percent for patients 15-24 years to 48 percent for patients 65 years and over (figure 8).

The proportion designated "Other" diagnostic services was higher than average for Ob-Gyn's (7 percent of all Ob-Gyn's visits, compared with 4 percent of visits to all other physicians). Because the Patient Record form is used for over 50 different specialties, it is not feasible to list the diverse diagnostic services likely to be used by all of them. Therefore, it does not include some services used by the Ob-Gyn's, such as pelvic examination, breast examination, and sonogram. The absence of these or other options on the form may partially account for the greater use of the "Other" category in Ob-Gyn's visits. Furthermore, there were proportionately fewer "Other" diagnostic services rendered in visits by patients over 44 years of age (4 percent) than in those by younger patients (8 percent) suggesting a relationship between the omitted tests and patients in the childbearing years (table 12).

Medical counseling and family planning were the nonmedication therapy most commonly used by Ob-Gyn's, accounting for 26 percent and 16 percent of visits, respectively. Proportions of visits with medical counseling were relatively constant across age groups. As expected, family planning therapy was less likely for patients over 44 years of age (1 percent) than for younger patients (16 percent of visits by patients 25-44 years of age and 21 percent of visits by patients under 25 years of age).

Because of the prominence of family planning visits to Ob-Gyn's by patients under 45 years of age, the most commonly used class of drugs was hormones and synthetic substitutes (29 percent of drugs mentioned for patients under 25 years of age and 22 percent for patients 25-44) (table 13). This class of drugs was also predominant for patients over 45 years of age (33 percent), but it consisted largely of estrogens for the older patients (24 percent) and contraceptives for the younger patients (18 percent) (table G). Patients in the age group under 45 years were more likely than



Figure 6. Percent of office visits made by women that included a Pap test, by age of patient and physician specialty: United States, January 1980-December 1981



Figure 7. Percent of office visits made by women that included a clinical laboratory test, by age of patient and physician specialty: United States, January 1980-December 1981



Figure 8. Percent of office visits made by women that included a blood pressure check, by age of patient and physician specialty: United States, January 1980-December 1981

those who were older to be treated with antianemia drugs (5 percent for the former, compared with 1 percent for the latter) and multivitamin preparations (20 percent and 3 percent, respectively). Patients 45 years of age and over were more likely to be treated with hypotensive agents (6 percent for the older group and less than 1 percent for the younger group), sedatives and hypnotics (5 percent and 2 percent, respectively), and diuretics (6 percent and 1 percent, respectively). These data exemplify the correlation of drug utilization with the conditions likely to be presented by patients in each age group. Furthermore, they are consistent with the general findings in NAMCS that indicate a higher rate of drugs prescribed for older than for younger patients. For patients 45 years and over, one or more drugs were ordered or prescribed in 52 percent of their visits, compared with 37 percent of the visits by patients 25-44 years of age (table 12).

The specific drugs named by Ob-Gyn's are listed in table 14. The same caveat regarding rank order given for the listing of diagnoses applies to the listing of drugs. The reader is also reminded that numbers of drug mentions are Table G. Number of drug mentions in office visits to obstetrician-gynecologists by age of patient, and percent of drug mentions by selected therapeutic categories and age of patient: United States, January 1980-December 1981

	A	ge of patient	
Selected therapeutic category <sup>1</sup>	Ali ages	Under 45 years	45 years and over
	Numl	ber in thousand	ds
All drug mentions	61,204	50,352	10,852
	Percen	t of drug ment	ons
Anti-infective agents	15.9	17.0	10.7
Antibiotics	9.2	10.0	5.2
Sulfonamides	0.9	0.9	*1.1
Trichomonacides	4.9	5.2	*3.6
Vrinary germicides	0.8	0.9	*0.6
Blood formation and coaculation	4.7	5.3	*2.1
Antianemia drugs	4.5	5.2	*1.4
Cardiovascular drugs	1.9	*0.5	8.7
Hypotensive agents	1.3	*0.4	5.9
Central nervous system drugs	7.7	7.1	10.2
Analoesics and antipyretics	44	4.5	*3.5
Sedatives and hypothesis	2.3	1.7	5.1
Electrolytic, caloric, and water balance	3.0	1.7	8.8
Diuretics	2.3	1.4	6.1
Hormones and synthetic substitutes	26.0	24.6	32.7
Contraceptives	15.2	18.4	*0.5
Estrogens	6.3	2.4	24.1
Projestogens	2.7	2.5	3.1
Skin and mucous membrane preparations	10.7	10.9	10.0
Anti-infectives	6.9	7.3	5.2
Anti-inflammatory agents	1.7	1.4	*3.2
Vitamins	19.3	22.3	5.4
Vitamins (unspecified)	1.8	2.2	*0.2
Multivitamin preparations	16.7	19.7	*2.7

<sup>1</sup>Based on the classification system of the American Hospital Formulary Service.<sup>13</sup>

for a 2-year period. The drugs are listed according to the physician's entry on the Patient Record Form. It can be seen in table 14 that the mode of entry was almost always the brand name of the drug. The principal generic entities are shown in table 14 in parentheses, and a therapeutic use is provided. For some drugs more than one therapeutic use may be possible. The association between the utilization of certain classes of drugs and the patient's age group has already been demonstrated in this report. Therefore, age groups are not shown in table 14. It is apparent that a wide variety of oral contraceptives were utilized. Among these were ortho-novum, lo/ovral, ovral, norinyl, demulen, loestrin, ovcon, and modicon. The principal estrogen replacement therapy used was premarin (4 percent). Other drugs such as monistat (used for Candidiasis, 4 percent), flagyl (used for trichomoniasis, 2 percent), and sultrin (for vaginal infections, 1 percent) reflect the range of diagnoses made by Ob-Gyn's. It should be noted that in some instances the magnitude of mentions of a specific drug is limited or enhanced by the availability in the market of different brands of the same generic entity.

The duration of visits to Ob-Gyn's was also related to the age of the patient. Proportions of relatively short visits (less than 11 minutes) decreased with advancing age groups, ranging from 54 percent of visits by patients under 25 years of age to 33 percent of those by the oldest group (table 15). Relatively long visits (16 minutes or more) were proportionately more frequent for the oldest group (34 percent) than for the two younger groups (24 percent of visits by patients 25-44 years of age and 20 percent of visits by patients under 25 years of age). These observations are consistent with those based on all NAMCS visits.

#### Male patients

Male patients, representing a broad range of age groups, made an estimated 1,143,000 visits to Ob-Gyn's in the 2-year period. Based on this number it is difficult to identify a typical pattern or to determine why males visited physicians whose specialty is treating female problems. However, the statistics based on their visits suggest a pattern that is closer to that of general medicine than the pattern that evolved for females' visits. Male patients presented symptomatic reasons in 47 percent of their visits. Major reasons for visit were categorized as acute or chronic problems more often than as nonillness or other types of care. Surprisingly, 93 percent of their visits were return visits for new or continuing problems, and in 65 percent physicians gave instructions to return at a specific time; thus, ruling out a hypothesis that males made casual, dropin visits to Ob-Gyn's. Because their visits were more likely to be related to illness than to preventive care, 77 percent of visits by male patients

Table H. Number of office visits to obstetrician-gynecologists, number and percent of drug visits, number of drug mentions, drug mention rate per visit, and drug intensity rate per drug visit, by selected characteristics: United States, January 1980-December 1981

Selected characteristic	All visits in thousands	Drug visits in thousands <sup>1</sup>	Percent drug visits	Drug mentions in thousands	Drug mention rate per visit <sup>2</sup>	Drug intensity rate per drug visit <sup>3</sup>
Sex of patient						
Both sexes	109,035	45,369	41.6	61,204	0.56	1.35
Female	107,892	44,484	41.2	59,407	0.55	1.34
Male	1,143	885	77.4	1,798	1.57	2.03
Age of patient						
Under 25 vears	34,574	16,129	46.7	20,802	0.60	1.29
25-44 years	61,233	22,395	36.6	29,550	0.48	1.32
45 years and over	13,228	6,844	51.7	10,852	0.82	1.59
Race						
White	95,107	38,622	40.6	51,135	0.54	1.32
Black	12,190	6,069	49.8	9,201	0.75	1.52
Other	1,737	678	39.1	868	0.50	1.28
Ethnicity				4		
Hispanic	6,139	2,589	42.2	3,299	0.54	1.27
Non-Hispanic	102,895	42,780	41.6	57,905	0.56	1.35

<sup>1</sup>A visit in which 1 or more drugs were prescribed.

<sup>2</sup>Number of drug mentions divided by number of visits.

<sup>3</sup>Number of drug mentions divided by number of drug visits.

included one or more drugs, in contrast to 41 percent of visits by females (table H). The limited history and/or examination, which is commonly used with returning patients, was indicated in 72 percent of the visits by male patients. Blood pressure was measured in 43 percent. Therapy, other than medication, was not given in 53 percent of males' visits and family planning was not a measurable aspect of the males' visits.

### **Prior visit status**

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In NAMCS, visits are assigned to one of three categories: Patients the physician had not seen before (new patients); patients the physician had seen before, but presenting new problems; and old (returning) patients, "presenting old (continuing) problems. These 3 categories may be reduced to 2 categories by combining the first two, thus creating a category of new problems (as opposed to old problems that are assigned to only the last category).

The major reasons for most new problem visits were either acute problems or nonillness care. However, the major reasons for old problems were overwhelmingly nonillness care (71 percent) (table 6). As a result, patients who visited for care of continuing problems were less likely to present symptoms as their principal reasons for visit than patients with new problems were. Disease categories such as infectious and parasitic diseases, and diseases of the genitourinary system were more commonly diagnosed during new problem visits than during old problem visits. Office surgery was performed in about 8 percent of the visits for new problems, compared with 4 percent of those for old problems (table 12). Family planning was also a more likely service when patients presented new problems.

When data on the purpose of the visit and the nonmedication therapy used in connection with it are examined, the status of the problem is of interest. However, in other instances the status of the *patient* affects the utilization of health care. The categories "old patient, new problem" and "old patient, old problem" may be combined to form the category of "old patients" (as opposed to "new patients"). The type of examination used was related to the status of the patient, but not the status of the problem. Old patients, regardless of whether the problem was new or old, were given a limited history and/or examination in proportionately more visits than new patients were. New patients were more likely to have the more comprehensive general history and/or examination. This was probably because data on old patients were available. in their medical files. New patients were also more likely to have Pap tests (51 percent) than old patients were.

The duration of visits made by new patients was likely to be longer than that of visits by old patients, and old patients with new problems had longer than old patients with old problems. This progression is shown in table J.

Table J.	Percent of	office vis	its to obsi	tetrician-g	gynecologists,	by
duratio	n and status	of visit:	United S	tates, Ja	nuary 1980	
Decem	ber <sup>:</sup> 1981					

	Duration of visit			
Status of visit	Less than 11 minutes	16 minutes or more		
	Percent	of visits		
New patient	23.7	51.6		
Old patient, new problem	41.1	30.3		
Old patient, old problem	54.9	18.0		

About 52 percent of the visits by new patients lasted more than 15 minutes, compared with 31 percent and 18 percent of the 2 groups of old patients, respectively. Conversely, 55 percent of the visits by old patients with old problems were relatively short (less than 11 minutes), compared with 41 percent of the visits by old patients with new problems and 24 percent of those by new patients. This relationship has been evident throughout previous NAMCS analyses.

# Reasons for visit and diagnostic services

The options that physicians may select to indicate their use of diagnostic services on the Patient Record form are shown in table 16. As mentioned previously, the large proportion in the "other" category suggests that these selected services may not adequately describe the extent of services used in obstetrical and gynecological practice. When the major reason for visit was nonillness care (the principal care classification in the Ob-Gyn's practice) proportionately more clinical laboratory tests (48 percent) and blood pressure checks (78 percent) were ordered or provided than when other types of care were provided. In addition, the proportion of "other" services was higher (9 percent) than that of the visits for other major reasons for visit, and also higher than the NAMCS average (7 percent). Therefore, this part of the pattern is less clear than other areas are.

# Principal diagnosis and therapy, duration, disposition

Four groups of principal diagnoses accounted for about 88 percent of the visits to Ob-Gyn's. These four groups (shown in table 9) were infectious and parasitic diseases (3 percent); diseases of the genitourinary system (19 percent); complications of pregnancy, childbirth, and the puerperium (3 percent); and the supplementary classification (63 percent). In table 17, visits for these conditions are distributed by proportions of nonmedication therapy and number of medications ordered or provided in their presence. It is apparent that nonmedication therapy was not a common event during these visits because at least 44 percent of them included no nonmedication services. This proportion was highest when visits were due to infectious and parasitic diseases (56 percent) or in the supplementary classification (54 percent). When therapy was indicated it was likely to consist of family planning and medical counseling. These two forms of therapy accounted for 35 percent of the visits for infectious and parasitic diseases: 49 percent of those for diseases of the genitourinary system; 43 percent of those for complications of pregnancy, childbirth, and the puerperium; and 40 percent of those in the supplementary classification. When patients were diagnosed in the last 3 groups, medication therapy was not likely to be prescribed because the largest proportion of each group's visits included none. However, 58 percent

of the visits for infectious and parasitic diseases included one medication. Patients with diseases of the genitourinary system were given one medication in 38 percent of their visits.

Duration of the visit varied from the average of 13.9 minutes for all Ob-Gyn's visits when certain characterisitcs were present. One of these characteristics was the diagnosis. The mean duration of visits for the most frequent diagnoses is shown in table 18. Visit length exceeded the average when visits were for uterine leimvoma; other disorders of urethra and urinary tract; inflammatory disease of cervix, vagina, and vulva; endometriosis; genital prolapse; noninflammatory disorders of cervix; pain and other symptoms associated with female organs; disorders of menstruation; menopausal and postmenopausal disorders; contraceptive management; nonspecific abnormal histological and immunological findings; and general medical examination. Less than average time was used when patients' diagnoses were essential hypertension, normal pregnancy, or observation and evaluation for suspected conditions. Many of the lengthier visits involved diseases of the genitourinary system, and it can be seen in table 17 that, as a class, 37 percent of such visits exceeded 15 minutes. This was a higher proportion than those of the 3 groups so analyzed. Since normal pregnancy was the predominant diagnosis in the supplementary classification, and since such visits were shorter than average, it is not surprising to find that the highest proportion of short visits (lasting less than 11 minutes) was for this category (table 17).

The other characteristic that affects visit duration and that was shown previously to be related to it is the patient's prior visit status. When this variable is used in conjunction with the patient's diagnosis, a pattern emerges that is consistent with the previous findings. Selected principal diagnoses are listed in table K with the mean duration, according to prior visit status. Only those diagnoses where visits provided a reliable basis for duration estimation were used for this analysis because not all diagnoses had enough visits by new patients for a meaningful comparison. In every case, shown in table K, the duration of visits by new patients exceeded that of old patients. The status of the problem (new or old) affected the duration of visits for menopausal and postmenopausal disorders, and normal pregnancy. When patients the physician had seen before presented these two conditions as new problems, the mean duration was also longer than when they were old problems.

A high proportion of visits by returning patients for care or monitoring of continuing problems is often associated in NAMCS with a high proportion of visits that culminate in the physician's instructions to return at a specific time. For the four diagnostic categories shown in table 17 this was the most likely disposition, especially for visits in the supplementary classification where appointments for return visits were scheduled in 83 percent of such visits.

#### Table K. Mean duration of office visits to obstetrician-gynecologists, by selected principal diagnoses and prior visit status: United States, January 1980-December 1981

		Prior	visit status	
			Old p	atient
Selected principal diagnosis and ICD-9-CM code <sup>1</sup>	All patients	New patient	New problem	Old problem
		Mean dura	tion in minutes	
All diagnoses	13.9	19.7	15.2	12.5
Infective and parasitic diseases	14.3	18.5	13.0	13.5
Candidiasis	14.7	18.0	13.0	14.9
Diseases of the genitourinary system	16.2	20.0	15.6	15.2
Inflammatory disease of cervix, vagina, and vulva 616	16.2	19.4	15.1	15.5
Pain and other symptoms associated with female organs	16.8	19.0	15.5	16.1
from female genital tract	16.1	18.6	15.6	15.2
Menopausal and postmenopausal disorders	16.5	22.6	17.4	14.5
Supplementary classification	12.6	19.3	14.9	11.5
Normal pregnancy	10.7	18.7	15.7	9.6
Contraceptive management	16.4	23.2	16.5	14.6
General medical examination	17.9	19.7	*14.4	17.9
Gynecological examination	15.9	19.4	15.4	15.5

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<sup>1</sup>Based on International Classification of Diseases, 9th Revision, Clinical Modification.<sup>14</sup>

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The patterns of ambulatory care that emerged from this study of obstetrical and gynecological practice did not vary appreciably by physician, patient, or clinical characterisitcs. However, the general practice pattern underscored the visit characteristics that distinguish obstetrical and gynecological practice from others. Those differences among the various profiles of Ob-Gyn's that were statistically significant were small and not of major consequence. However, the age and sex of the patient were the two most potent determinants of the content of obstetrical and gynecological practice, which was also true of general and family practice, pediatrics, and internal medicine, among others. The influence of the patient's sex in the Ob-Gyn's practice is obvious. Patients were predominantly women in the childbearing age group, 15-44 years, who visited Ob-Gyn's for prenatal care, gynecological examinations, family planning, or disorders of the female reproductive system. Older women were treated principally for menopausal and postmenopausal disorders or genital tract disorders. Preventive care for this group was chiefly in the form of gynecological examination or followup following surgery. The tendency of older patients to visit old physicians who were likely to be in solo prcatice was similar to the patterns of other specialists.

#### **Comparison with all specialties**

The principal points of departure between the pattern of obstetrical and gynecological practice, and that of all physicians in NAMCS are listed in table L. In addition to the higher proportions of visits to Ob-Gyn's by women 15-44 years than to all physicians, Ob-Gyn's treated proportionately more patients for nonillness care, and provided more Pap tests, clinical laboratory tests, X-rays, and blood pressure checks. Family planning therapy was proportionately more often a part of the Ob-Gyn's visit than of other physicians. Proportions of visits to Ob-Gyn's for diseases of the genitourinary system and for examinations were also higher than those of other physicians were. On the other hand, patients visiting Ob-Gyn's were less likely to present with symptoms or to have diseases of the respiratory or circulatory systems than patients visiting all other physicians were. The last two disease categories were the leading groups of conditions seen by all other physicians in contrast to those seen by Ob-Gyn's where proportions of visits for these diagnoses were relatively small.

## Comparison with 1975 data

A comparison of 1975 and 1980-81 data revealed some differences in the patterns of practice during the 2 time periods (table M). However, the reader is cautioned that a difference between 2 points in time does not necessarily indicate a trend. In 1975 Ob-Gyn's accounted for 8.5 percent of the visits to all specialists. In 1980-81 this proportion was 9.4 percent, a small but statistically significant increase. In contrast to other specialists where proportions of visits to solo practice in 1980-81 were proportionately higher than similar visits in 1975. In 1980-81 they saw more patients who visited for normal pregnancy, and used more blood pressure checks and clinical laboratory tests than they did in 1975. However, proportions of visits for diseases of the

Table L. Percent of office visits to obstetrician-gynecologists and to all physicians, by selected visit characteristics: United States, January 1980-December 1981

Selected visit characteristic	Obstetrician- gynecologists	All physicians
	Percent	of visits
Female patients	99.0	60.3
Patients 15-44 years of age	87.0	40.6
Nonillness care as major reason for visit	61.9	17.6
Principal reason for visit in symptom module	23.5	54.1
Principal reason for visit in diagnostic, screening, and prevention module	61.9	19.5
Pap test provided as a diagnostic service	29.4	<sup>1</sup> 8.5
Clinical laboratory test, ordered or provided	42.8	21.9
X-ray, ordered or provided	7.5	1.6
Blood pressure check	68.4	34.2
Family planning therapy, ordered or provided	15.8	2.1
Diseases of the genitourinary system (principal diagnosis)	19.1	5.9
Diseases of the respiratory system (principal diagnosis)	0.7	12.6
Diseases of the circulatory system (principal diagnosis)	1.3	9.7
Supplementary classification (principal diagnosis)	62.5	17.5

<sup>1</sup>Based on total visits by female patients 15 years of age and over.

Table M. Percent of office visits to obstetrician-gynecologists, by selected visit characteristics: United States, 1975 and 1980-81

Selected visit characteristic	1975	1980-81
	Percen	t of visits
Visits to all specialists	8.5	9.4
Visits to solo practices	39.0	44.5
Blood pressure check	57.4	68.4
Clinical laboratory test	52.4	42.8
Normal pregnancy		
(principal diagnosis)	31.4	36.2
Diseases of the genitourinary		
system (principal diagnosis)	18.7	19.1
Infectious and parasitic		
diseases (principal diagnosis)	3.8	3.2

genitourinary system, and infectious and parasitic diseases remained about the same time.

The comparison of data across time periods was limited by the comparability of both the reason for visit classification system and the diagnostic coding system in use during the periods contrasted. Changes made in the Patient Record form also curtailed analysis. For example, the proportion of visits with one or more drugs prescribed in 1975 was about 36 percent. In the more recent study this proportion was 42 percent. However, the two are not really comparable because "drug prescribed" was simply an option in the list of services printed on the 1975 form, and on the 1980-81 form physicians were requested to actually write in the names of drugs. Such a listing increased the likelihood of a response.

### **Hospital care**

The data collected by means of the National Ambulatory Medical Care survey are generalizable only to the universe of office-based physicians. However, office-based physicians, and surgical specialists in particular, spend time in seeing and treating hospitalized patients. It was reported in another study<sup>5</sup> that about 24 percent of all patient encounters in obstetrical and gynecological practice are in the hospital. When telephone encounters are excluded, the proportion of inpatient encounters increases to 30 percent.

As may be expected, delivery and postpartum care accounted for about 30 percent of the principal diagnoses of Ob-Gyn's inpatients. The report also indicated that there were hospital visits for malignant neoplasms and diseases of the genitourinary system, but there was no information on whether surgery was performed. However, the second leading diagnosis, medical and surgical aftercare (18 percent), suggests that surgery occurred.

According to unpublished data from the National Hospital Discharge Survey<sup>17</sup> there were 3.9 million women with deliveries in 1981, and 4.2 million operations on the female genital organs. It was estimated in a 1977 manpower survey by the American College of Obstetricians and Gynecologists that Ob-Gyn's assisted in 81 percent of hospital deliveries.<sup>18</sup> There are no recent national data on the proportion of gynecological surgery performed by Ob-Gyn's or other physicians. However, in a 1970 study sponsored by the American College of Surgeons and American Surgical Association, it was estimated that in four selected geographic areas in the United States, Ob-Gyn's were the surgeons for about 72 percent of diagnostic dilation and curettage procedures performed in one area, 54 percent in another area, 51 percent in the third area, and 89 percent in the fourth.<sup>19</sup> For the same four areas, percents of abdominal hysterectomies performed by Ob-Gyn's were 64 percent, 52 percent, 54 percent, and 65 percent, respectively.

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 Table 1. Number of office visits to obstetrician-gynecologists by type and location of physician's practice, and percent distribution of office visits by selected visit characteristics, according to type and location of physician's practice: United States, January 1980-December 1981

	Type of practice		Geographic region				Area		
	All types	3					;		
Selected visit	of				North				Non-
characteristic	practice	Solo	Other <sup>1</sup>	Northeast	Central	South	West	Metropolitan	metropolitan
				Nu	mber in th	nousands			
All visits	109.035	48.512	60.522	26.385	28.935	30,921	22,794	89 110	19 925
		,		20,000	20,000	00,021	LL,104	00,110	10,020
				Pe	ercent dis	tribution			
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Sex of nationt									
Sex of patient									
Male	99.0	98.4	99.4 *0.6	99.5 *0.5	99.4 *0.6	98.8	98.0	99.1	98.4
	1.1	1.0	0.0	0.5	0.0	1.2	2.1	0.9	1.0
Age of patient									
Under 15 years	0.9	1.1	*0.7	*1.1	*1.0	*0.8	*0.8	0.7	*1.8
15-24 years	30.8	32.1	29.8	29.7	31.6	32.6	28.8	29.8	35.5
25-44 years	56.2	52.7	58.9	56.4	58.8	53.5	56.1	57.5	50.1
65 vears and over	9.0	20	8.3	10.4	1.0	10.3	10.9	9.5	10.0
,	2.0	2.5	2.0	2.4	1.0	2.3	0.4	2.0	2.0
Prior visit status									
New patient	11.8	11.9	11.8	12.2	10.0	12.1	13.2	12.0	10.9
Old patient, new problem	17.5	17.4	17.6	17.2	18.1	17.1	17.8	18.7	12.6
	70.7	70.7	70.6	70.6	71.9	70.8	69.0	69.4	76.5
Referral status									
Referred by another physician	3.1	2.6	34	28	27	26	45	31	29
Not referred by another physician	96.9	97.4	96.6	97.2	97.3	97.4	95.5	96.9	97.1
Major reason for visit									
	40.0	40.0		10 5					
Chronic problem, routine	18.3	19.0	17.7	19.5	15.8	17.1	21.6	18.8	16.0
Chronic problem, flareup	45	42	0.9 47	3.9	0.5 4 ft	0.2 6.2	33	0.2 4.8	0.0 3.1
Postsurgery or postinjury	7.1	7.5	6.9	6.9	6.4	7.8	7.5	6.9	8.4
Nonillness care	61.9	59.4	63.9	62.2	67.3	60.8	56.1	61.4	63.9
Principal reason for visit and RVC code <sup>2</sup>									
Symptom module S001-S999	00 F	05 1	00 1	00.0	01.4	05.0	04.4	00.0	00.0
Disease module	3.9	5.5	22.1	3.8	21.4	25.9 3.8	6.4	23.0 3.8	22.0
Diagnostic, screening, and preventive							•••	0.0	
module	61.9	58.9	64.3	61.5	68.2	58.3	59.2	61.9	61.7
Injuries and adverse effects	7.2	6.9	7,4	7.5	6.0	8.1	7.0	7.1	7.2
module	0.4	*0.8	*0.2	*0.1	*0.3	*0.4	*1.0	*0.5	*0.3
Test results module	1.1	*0.9	1.2	*1.3	*0.8	*1.0	*1.4	1.1	*1.0
Administrative module	*0.3	*0.2	*0.4	*0.3	*0.2	*0.3	*0.4	*0.3	*0.4
Other <sup>3</sup>	1.7	1.7	1.7	3.2	*0.9	2.2	*0.5	1.5	2.7
Diagnostic service <sup>4</sup>									
None	0.4	0.0			10	~~	0.5	~ ~	••
Limited history and/or examination	2.4 64.0	2.0 60.4	2.U 66 9	1 65 2	1.9 67 9	2.9 61.2	2.5	2.3	63.3
General history and/or examination	17.7	19.2	16.5	23.3	13.5	19.4	14.3	17.9	16.9
Pap test	29.4	27.8	30.7	33.6	25.0	31.3	27.3	30.9	22.7
Clinical laboratory test	42.8	42.3	43.3	39.2	39.5	51.4	39.7	42.6	43.9
A-ray	1.6	1.3	1.8	*1.1	1.5	2.0	*1.7	1.6	*1.8
Electrocardiogram	68.4	66.4	69.9	69.6	75.0	70.0	56.3	69.2	64.6
Endoscopy	0.3	11	*0.3	*1 6	*0.2	*0.4	‴U.4 *1 ຈ	0.3	*0.6
Mental status examination	0.8	*0.2	1.3	*0.0	2.0	*0.3	*0.9	0.9	3.0
Other	7.3	7.7	7.0	8.4	5.7	4.9	11.6	8.3	3.9

See footnotes at end of table.

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1. Number of office visits to obstetrician-gynecologists by type and location of physician's practice, and percent distribution of office visits by selected visit characteristics, according to type and location of physician's practice: United States, January 1980-December 1981-Con.

	Type of practice		Geographic region				Area		
Selected visit	All types of practice	Solo	Other <sup>1</sup>	Northeast	North	South	West	Metronolitan	Non-
	praetaee			1101110401	comu			monoponan	monopontari
Nonmedication therapy									
None	51.8	51.4	52.2	50.9	52.4	49.0	55.9	51.4	53.6
Physiotherapy	14	14	14	*0.4	30	*0.6	*1 7	1.6	*0.4
Office surgery	48	43	52	63	3.5	4.0	57	5.0	3.9
Family planning	15.8	15.4	16.2	16.4	16.6	13.7	172	16.5	12.8
Therapeutic listening	2.7	21	32	23	34	28	.21	25	36
Diet counseling	7.6	8.9	6.6	6.2	8.7	9.8	4.9	7.0	10.2
Family or social counseling	2.5	2.1	2.9	3.1	2.9	2.2	*1.9	2.2	3.7
Medical counseling	25.6	26.0	25.2	27.5	23.2	30.6	19.4	24.3	31.3
Other	1.1	1.3	0.9	*1.0	*1.5	*1.1	*0.8	1.3	*0.3
Number of medications									
Name	59.4	536	60.0	62.0	61.0	10 A	60.0	50 4	52.0
1	20.2	33.5	28.6	20.0	20 /	40.4 22 E	02.2	20.6	33.9
2	88	10.7	7.3	61	75	13.5	73	23.0	9.6
3	1.9	2.5	1.5	*0.8	*1 1	3.7	20	18	25
4 or more	0.6	0.8	0.4	*0.4	*0.1	*1.0	*0.8	*0.5	*0.8
Infectious and perceitin dispasso	20	21	22	27	4.0	20	2.1	25	*2.0
Neoplasms 140-220	17	20	3.3 1.5	2.7	*1.0	13	2.1	1.8	*1.3
Endocrine putritional and motobalia discasses	1.7	2.0	1.5	2.0	1.1	1.0	2.2	1.0	1.5
and immunity disorders 240-279	13	16	10	*1.0	*0.6	22	*13	12	*17
Mental disorders 290-319	*0.4	*0.5	*0.3	*0.1	*0 1	*0.7	*0.6	*0.4	*0.4
Diseases of the nervous system and		0.0	0.0	•	•••	0.7	0.0	0.1	0.7
sense organs	*0.1	*0.1	*0.2	*0.0	*0.2	*0.3	-	*0.1	*0.1
Diseases of the circulatory system	1.3	2.0	0.8	*0.3	*0.6	2.2	2.3	1.0	2.7
Diseases of the respiratory system	0.7	1.1	*0.5	*0.3	*0.6	*1.3	*0.6	0.6	*1.2
Diseases of the digestive system	0.7	0.8	*0.6	*0.3	*0.8	*1.0	*0.4	0.7	*0.6
Diseases of the genitourinary system	19.1	19.7	18.6	19.6	15.3	20.9	21.0	19.3	18.1
Complications of pregnancy, childbirth, and	0.7				~ .	~ ~			
The puerperium	2./	2.8	2.0	2.7	2.4	2.3	3.5	2.6	3.0
tissue 680-709	0.5	07	*0.4	*0.6	*0.3	*0.7	*0.5	*0.4	*0.9
Diseases of the musculoskeletal system	0.0	0.7	0.4	0.0	0.0	0.7	0.0	0.4	0.0
and connective tissue	0.6	*0.9	*0.4	*0.5	*0.2	*0.9	*0.9	0.6	*0.5
Symptoms, signs, and ill-defined									
conditions	1.8	1.5	2.1	1.7	2.2	1.7	*1.7	1.9	*1.4
Injury and poisoning	1.0	1.3	*0.7	*0. <del>9</del>	*0.6	*1.0	*1.5	0.9	*1.1
Supplementary classification	62.5	60.1	64.4	64.1	68.6	57.9	59.1	62.3	63.5
All other diagnoses	0.3	*0.3	*0.4	*0.3	*0.2	*0.4	*0.4	0.4	*0.2
Unknown diagnoses	2.1	1.6	2.4	2.3	2.5	2.2	1.0	2.2	*1.3
Duration of visit									
0 minutos <sup>6</sup>	0.0	0.0	10	*0.1	*0.7	20	*0 5	10	*0 6
	18.0	17.0	18.0	12.0	22.0	16.0	21 /	16.0	26.0
6-10 minutes	30.7	31.9	29.8	28.6	36.2	29.3	28.1	29.5	20.9
11-15 minutes	26.2	25.3	26.9	30.1	23.6	26.4	24.6	27.3	21.1
16-30 minutes	21.7	22.5	21.0	27.2	14.9	22.7	22.5	23.7	12.8
31 minutes or more	2.5	2.5	2.5	2.0	1.6	3.3	2.9	2.5	2.4
Disposition of visit <sup>7</sup>									
No followup planned	6.7	6.5	6.8	6.7	9.7	4.0	6.6	7.0	5.4
Return at specified time	75.7	75.1	76.1	79.1	72.3	76.4	75.1	75.6	75.8
Return if needed	15.3	16.3	14.6	12.6	16.1	16.3	16.3	14.6	18.8
Telephone followup planned	2.3	2.5	2.2	3.0	1.8	2.2	2.3	2.1	3.5
Referred to other physician	1.8	1.7	1.9	*1.6	*1.5	2.1	2.0	1.8	*1.7
Returned to referring physician	0.7	*0.8	*0.7	*0.6	*1.0	*0.6	*0.8	0.7	*0.9
Admit to hospital	3.0	3.1	2.9	2.6	3.7	3.5	*1.9	2.9	3.3
Other	*0.1	<b>*</b> 0.1	*0.1	*0.1	"O.1	"0.1	*0.2	*0.2	"0.1

<sup>1</sup>Includes partnership, group, and other types of practice. <sup>2</sup>Based on *A Reason for Visit Classification for Ambulatory Care*.<sup>10</sup> <sup>3</sup>Includes blanks; problems, complaints not elsewhere classified; entry of "none;" and illegible entries. <sup>4</sup>Percents will not total 100.0 because more than 1 service may have been rendered during a visit. <sup>5</sup>Based on *International Classification of Diseases, 9th Revision, Clinical Modification*.<sup>14</sup> <sup>6</sup>Represents visits in which there was no face-to-face encounter between patient and physician. <sup>7</sup>Percents will not total 100.0 because more than 1 disposition was possible.

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Table 2. Number of drug mentions in office visits to obstetrician-gynecololgists by type and location of physician's practice, and percent distribution of drug mentions by selected therapeutic categories, according to type and location of physician's practice: United States: January 1980–December 1981

	T.	ype of pract	ice	Geographic region				Area		
Selected therapuetic category <sup>1</sup>	All types of practice	Solo	Other <sup>2</sup>	Northeast	North Central	South	West	Metro- politan	Nonmetro- politan	
				Number	in thousands	6				
All categories	61,204	31,373	29,832	12,063	13,926	23,425	11,791	48,576	12,628	
				Percen	t distribution					
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Antihistamine drugs	2.2	2.6	1.9	2.2	2.1	2.6	1.8	2.1	*2.8	
Anti-infective agents	15.9	15.3	16.6	17.0	13.4	15.3	18.9	16.8	12.6	
Autonomic drugs	1.5	1.3	1.7	*0.9	*1.1	*1.7	*2.1	1.5	*1.6	
Blood formation and										
coagulation	4.7	5.3	4.0	4.6	4.1	6.2	*2.6	4.6	5.0	
Cardiovascular drugs	1.9	2.9	*0.9	*0.6	*0.6	2.8	3.2	1.3	4.5	
Central nervous system drugs	7.7	7.2	8.2	6.3	8.2	8.4	7.0	7.9	6.7	
Electrolytic, caloric, and										
water balance	3.0	3.1	2.9	*1.8	*3.1	3.7	*2.8	2.9	*3.2	
Expectorants and cough										
preparations	0.9	*1.0	*0.8	*0.8	*0.4	*1.5	*0.4	*0.6	*2.0	
Gastrointestinal drugs	1.9	1.7	2.2	1.7	1.9	2.2	*1.6	2.0	*1.5	
Hormones and synthetic										
substitutes	26.0	24.7	27.4	26.2	25.0	24.9	29.3	26.5	24.2	
Skin and mucous										
membrane preparations	10.7	11.2	10.2	12.4	11.0	10.8	8.7	11.1	9.2	
Vitamins	19.3	18.8	19.8	20.8	24.7	17.4	15.2	18.4	22.8	
Other, unclassified, or	,									
undetermined	4.2	5.0	3.5	4.9	4.4	2.6	6.5	4.3	4.0	

<sup>1</sup>Based on the classification system of the *American Hospital Formulary Service*.<sup>13</sup> <sup>2</sup>Includes partnership, group, and other types of practice.

Table 3. Number of office visits to obstetrician-gynecologists by age of physician, and percent distribution of office visits by selected visit characteristics, according to age of physician: United States, January 1980-December 1981

Selected visit characteristics	All agés	Under 35 years	35-44 years	45-54 years	55-64 years	65 years and over
			Number in	thousands		
All visits	107,263	7,876	37,780	37,354	18,585	5,668
			Percent d	istribution		
Total	100.0	100.0	100.0	100.0	100.0	100.0
Sex of patient						
Female	99.1	100.0	99.4	99.7	96.8	99.4
Male	0.9	-	*0.6	*0.3	3.2	*0.6
Age of patient						
Under 15 years	0.8	*0.6	*0.6	*1.0	*0.9	*1.2
15-24 years	30.8	40.1	34.7	29.5	25.2	17.8
25-44 years	56.3	55.3	57.7	59.1	51.5	45.1
45-64 years	9.6	*3.0	5.4	8.4	17.6	28.9
65 years and over	2.6	*1.1	1.6	2.1	4.8	*7.0
Prior visit status						
New patient	11.8	13.4	13.1	11.2	10.8	8.5
Old patient, new problem	17.5	17.4	16.3	17.6	19.8	18.2
Old patient, old problem	70.6	69.3	70.6	71.2	69.4	73.3
Referral status						
Referred by another physician	3.1	2.9	3.3	3.1	2.8	3.3
Not referred by another physician	96.9	97.2	96.7	96.9	97.2	96.7

See footnotes at end of table.

Table 3. Number of office visits to obstetrician-gynecologists by age of physician, and percent distribution of office visits by selected visit characteristics, according to age of physician: United States, January 1980-December 1981-Con.

			Age of p	hysician <sup>1</sup>		
Selected visit characteristics	All ages	Under 35 years	35-44 years	45-54 years	55-64 years	65 years and over
Major reason for visit			Percent d	istribution		
Acute problem	18.4	12.6	19.1	17.2	21.5	19.1
Chronic problem, routine	8.3	4.8	8.1	8.2	7.9	17.2
Chronic problem, flareup	4.3	*2.0	3.6	4.8	4.8	8.1
Post surgery or postinjury	7.2	5.7	7.1	7.0	8.1	8.7
Noniliness care	61.7	74.9	62.0	62.9	57.7	46.9
Principal reason for visit and RVC code <sup>2</sup>						
Symptom module	23.4	15.8	22.7	22.0	25.9	39.9
Disease module	4.0	*3.1	3.3	2.9	6.3	8.6
Diagnostic, screening, and preventive						
module	61.7	73.0	62.6	64.5	56.3	40.2
Treatment module	7.3	*4.1	7.7	7.7	6.4	8.5
Injuries and adverse effects module	*0.4	*0.2	*0.3	*0.2	*1.2	*0.4
Test results module	1.1	*0.3	*0.9	1.7	*0.8	*0.5
Administrative module	*0.3	*0.3	*0.2	*0.3	*0.4	*0.5
Other <sup>3</sup>	1.8	*3.4	2.3	*0.7	*2.7	1.4
Diagnostic service <sup>4</sup>					•	
None	2.3	*1.1	2.5	2.1	3.0	2.4
Limited history and/or examination	63.9	69.5	70.8	63.4	53.3	48.2
General history and/or examination	17.7	24.6	16.6	15.8	18.9	25.0
Pap test	29.6	23.1	26.1	30.6	32.6	45.7
Clinical laboratory test	43.3	39.2	39.7	43.7	49.6	49.4
Х-тау	1.6	*0.4	1.2	1.5	*1.7	*5.6
Blood pressure check	68. <del>9</del>	67.0	69.0	69.0	68.7	71.4
Electrocardiogram	*0.3	-	*0.3	*0.1	*0.7	*1.1
Endoscopy	0.8	-	*0.5	1.5	*0.6	*0.2
Mental status examination	0.7	*0.1	*0.2	1.6	*0.1	*0.1
Other	7.4	9.8	9.3	6.7	3.9	8.7
Nonmedication therapy <sup>4</sup>						
None	51.4	51.0	49.2	56.2	45.9	52.2
Physiotherapy	1.4	*0.5	2.3	*0.6	1.8	0.8
Office surgery	4.9	*3.8	5.3	4.6	5.2	*3.9
Family planning	15.9	19.1	17.4	16.2	12.8	9.2
Therapeutic listening	2.7	*2.0	1.8	2.7	4.2	*5.9
Diet counseling	7.6	6.6	7.4	6.7	9.6	10.2
Family or social counseling	2.6	*1.7	1.8	3.3	2.6	*4.1
Medical counseling	25.9	24.7	26.9	22.3	30.1	31.4
Other	1.1	*0.7	0.9	*1.0	*2.0	*0.7
Number of medications						
None	58.3	53.2	61.9	59.4	59.0	32.4
1	30.5	38.0	28.2	31.0	27.9	39.2
2	8.8	8.2	8.0	7.9	9.3	18.7
3	1.9	*0.6	1.5	1.3	2.8	7.9
4 or more	0.5	-	*0.4	*0.4	*1.0	*1.8

See footnotes at end of table.

Table 3. Number of office visits to obstetrician-gynecologists by age of physician, and percent distribution of office visits by selected visit characteristics, according to age of physician: United States, January 1980-December 1981-Con.

	Age of physician <sup>1</sup>						
Selected visit characteristics	All ages	Under 35 years	35-44 years	45-54 years	55-64 years	65 years and over	
Principal diagnosis and ICD-9-CM code <sup>5</sup>			Percent d	listribution			
Infectious and parasitic diseases	3.2	*2.9	3.0	3.6	32	*3.4	
Neoplasms	1.8	*0.6	1.4	2.1	*1.5	*4.7	
Endocrine, nutritional and metabolic diseases							
and immunity disorders	1.3	_	*0.8	1.3	*1.1	*6.8	
Mental disorders	*0.4	*0.2	0.3	*0.2	*1.0	*0.7	
Diseases of the nervous system and sense organs	*0.1	*0.2	0.1	_	*0.3	*0.0	
Diseases of the circulatory system	1.3	*0.4	*0.6	*0.5	3.0	6.7	
Diseases of the respiratory system	0.7	*0.2	*0.5	*0.4	*1.2	*2.5	
Diseases of the digestive system	0.7	*0.4	*0.6	*0.8	*0.3	*0.9	
Diseases of the genitourinary system	19.3	12.7	17.9	19.1	21.4	32.1	
Complications of pregnancy, childbirth,							
and the puerperium	2.7	4.8	3.2	2.3	2.2	*1.5	
Diseases of the skin and subcutaneous tissue	0.5	-	0.6	*0.6	*0.5	*0.5	
Diseases of the musculoskeletal system							
and connective tissue	0.6	*0.3	*0.7	*0.3	*1.0	*0.9	
Symptoms, signs, and ill-defined conditions	1.8	*0.6	2.1	2.0	*1.2	*2.6	
Injury and poisoning	0.9	*0.7	*0.7	*0.7	*2.0	*0.9	
Supplementary classification	62.5	75.3	64.8	64.1	58.0	32.8	
All other diagnoses	0.3	0.4	0.2	0.3	0.3	1.1	
Unknown diagnoses	2.0	*0.4	2.7	1.7	1.9	*2.0	
Direction of the							
Duration of visit							
0 minutes <sup>6</sup>	1.0	*3.4	1.6	*0.2	*0.4	*0.1	
1-5 minutes	17.5	16.2	17.1	18.8	18.4	10.6	
6-10 minutes	30.7	49.8	27.4	32.6	30.6	14.9	
11-15 minutes	26.4	17.3	27.2	27.6	25.0	30.3	
16-30 minutes	22.0	12.2	23.3	19.6	23.3	38.0	
31 minutes or more	2.5	*1.1	3.4	1.3	*2.4	*6.1	
Disposition of visit							
No followup planned	64	6.2	5.0	75	60	*0.0	
Beturn at specified time	75.0	0.3 91.6	5.9 76.6	7.5	0.3	72.8	
Return if needed	15.5	01.0	10.0	13.0	/1.0	/0.2	
	10.4	9.0 *1 E	19.1	13.2	14.9	17.0	
Referred to other physician	2.0	1.5	2.2	1.9	3.6	*2.9	
Returned to referring physician	1.0	1.0	1.0	1.0	1.9	2.8	
Admit to beenital	0.0	0.0 *1 0	0.7	0.0	1.1	1.1	
Other	*0.1	*0.2	3.2 *0.0	3.1	3.3	~3.5 *0.0	
	0.1	0.2	0.2	_	0.2	0.3	
Type of practice							
Solo	44.9	38.3	44.6	34.7	57.9	81.3	
Other <sup>8</sup>	55.1	61.7	55.4	65.3	42.1	18.7	
Goographic reside							
Geographic region							
Northeast	24.3	43.5	26.4	18.8	24.1	21.0	
North Central	26.5	32.6	20.2	37.5	20.2	8.0	
South	28.8	19.9	29.4	25.1	29.6	59.1	
West	20.4	*4.1	24.1	18.6	26.1	11.8	
Area							
Matropolitan	01.1						
Nonnotroneliten	81.4	84.9	80.0	84.3	82.0	65.5	
	18.6	15.1	20.0	15.7	18.0	34.5	

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<sup>1</sup>Does not include doctors of osteopathy. <sup>2</sup>Based on *A Reason for Visit Classification for Ambulatory Care*.<sup>10</sup> <sup>3</sup>Includes blanks; problems, complaints not elsewhere classified; entries of "none"; and illegible entres. <sup>4</sup>Percents will not total 100.0 because more than 1 service may have been rendered during a visit. <sup>5</sup>Based on *International Classification of Diseases, 9th Revision, Clinical Modification.*<sup>14</sup> <sup>6</sup>Represents visits in which there was no face-to-face encounter between patient and physician. <sup>7</sup>Percents will not total 100.0 because more than 1 disposition was possible. <sup>8</sup>Includes partnership, group, and other types of practice.

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Table 4. Number of drug mentions in office visits to obstetrician-gynecologists by age of physician, and percent distribution of drug mentions by selected therapeutic categories, according to age of physician: United States, January 1980-December 1981

	Age of physician <sup>2</sup>							
Selected therapeutic category <sup>1</sup>	All ages	Under 35 years	35-44 years	45-54 years	55-64 years	65 years and over		
			Number in	thousands				
All categories	60,112	4,434	19,038	19,545	11,002	6,093		
			Percent	distribution				
Total	100.0	100.0	100.0	100.0	100.0	100.0		
Antihistamine drugs	2.1	*2.4	2.7	*1.9	*2.4	*0.7		
Anti-infective agents	15.9	*8.8	18.1	15.3	17.6	12.8		
Autonomic drugs	1.4	*0.6	*1.6	*1.3	*1.4	*2.0		
Blood formation and coagulation	4,7	8.9	4.0	5.4	4.1	*2.9		
Cardiovascular drugs	1.9	*0.3	*1.1	0.5	4.2	*6.4		
Central nervous system drugs	7.5	*2.1	7.7	7.2	9.5	8.6		
Electrolytic, caloric, and water balance	3.0	*0.3	*2.3	2.9	4.4	*5.4		
Expectorants and cough preparations	0.9	*0.6	*0.9	*0.3	*0.4	*3.6		
Gastrointestinal drugs	1.8	*1.2	2.8	1.3	*1.4	*1.8		
Hormones and synthetic substitutes	26.1	22.9	24.3	28.8	25.7	25.8		
Skin and mucous membrane preparations	10.8	*9.6	10.3	12.0	9.4	11.9		
Vitamins	19.6	39.5	20.8	18.7	14.3	13.7		
Other, unclassified, or undetermined	4.2	*2.9	3.7	4.4	5.2	4.4		

<sup>1</sup>Based on the classification system of the American Hospital Formulary Service.<sup>13</sup> <sup>2</sup>Does not include doctors of osteopathy.

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Table 5. Number of office visits made by female patients by race and ethnicity; percent distribution of office visits by age of patient, according to race and ethnicity; and average annual visit rate by age, race, and ethnicity: United States, January 1980-December 1981

		Ra	Ethnicity			
Age of patient	All races	White	Black	All other	Hispanic	Non-Hispanic
			Number in	thousands		
All ages	107,892	94,026	12,141	1,724	6,101	101,790
			Percent	distribution		
Total	100.0	100.0	100.0	100.0	100.0	100.0
Under 15 years	0.7	0.6	*1.3	*1.8	*0.3	0.7
15-24 years	31.0	31.0	32.1	*24.5	38.6	30.6
25-44 years	56.5	56.1	58.2	67.3	52.7	56.7
45-64 years	9.4	9.8	7.2	*6.0	*6.4	9.6
65 years and over	2.4	2.6	*1.3	*0.4	*2.0	2.5
		Vi	isit rate per 10	0 females in po	pulation	
All ages	46.8	47.8	43.3	30.5	41.8	47.1
Under 15 years	1.5	1.3	*2.1	*2.1	*0.3	*1.6
15-24 years	81.1	84.7	67.4	*39.7	76.6	80.4
25-44 years	94.7	96.1	92.6	61.6	78.7	96.6
45-64 years	21.9	22.5	18.9	11,4	*19.1	22.0
65 years and over	9.1	9.4	*6.5	*2.2	*15.4	9.0

Table 6. Number of office visits to obstetrician-gynecologists by age of patient and prior visit status; percent distribution of office visits by selected characteristics, according to age of patient and prior visit status; and return visit ratio by age of patient and prior visit status: United States, January 1980-December 1981

	Age of patient				Prior visit status			
Selected characteristic	All ages	Under 25 years	25-44 years	45 years and over	New patient	Old patient, new problem	Old patient, old problem	
			Nu	mber in thousan	ids			
All visits	109,035	34,574	61,233	13,228	12,871	19,119	77,045	
			P	ercent distributio	'n			
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Major reason for visit								
Acute problem	18.3	18.8	17.1	22.6	36.6	47.7	7.9	
Chronic problem, routine	8.3	5.5	7.5	18.9	9.2	4.8	9.0	
Chronic problem, flareup	4.5	3.2	4.2	8.8	6.1	4.1	4.3	
Postsurgery or postinjury	7.1	4.9	7.5	11.5	*1.5	6.4	8.3	
Nonillness care	61.9	67.7	63.7	38.2	46.6	37.0	70.6	
Principal reason for visit module and RVC code <sup>1</sup>								
Symptom module	23.5	21.3	21.6	37.6	38.8	48.1	14.8	
Disease module	3.9	2.6	3.3	10.4	4.7	3.9	3.8	
preventive module	61.9	68.5	64.2	33.9	49.4	37.8	69.9	
Treatment module	7.2	4.1	7.5	13.4	*2.3	6.6	8.1	
module	0.4	*0.5	*0.3	*0.6	*0.6	*1.1	*0.3	
Test results module	1.1	*0.9	1.1	*1.5	*2.0	*0.6	1.0	
Administrative module	*0.3	*0.5	*0.2	*0.1	0.9	*0.8	*0.1	
Other <sup>2</sup>	1.7	1.6	1.8	*2.5	*1.3	*1.1	2.0	
Prior visit status								
New patient	11.8	15.5	10.1	10.3	-	_	-	
Old patient, new problem	17.5	16.6	17.8	19.0	-	_	-	
Old patient, old problem	70.7	68.0	72.1	70.8	-		-	
				Return visit rat	io <sup>3</sup>			
Return visit ratio	7.5	5.5	8.9	8.8	-	-	. –	

<sup>1</sup>Based on *A Reason for Visit Classification for Ambulatory Care*.<sup>10</sup> <sup>2</sup>Includes blanks; problems, complaints not elsewhere classified; entries of "none"; and illegible entries. <sup>3</sup>Number of old patients divided by number of new patients.

Principal reason for visit and RVC code <sup>1</sup>	Number of visits in thousand	Percent <sup>2</sup>	Cumulative percent
Prenatal examination, routine	38,356	35.2	35.2
Gynecological examination	10,365	9.5	44.7
Postoperative visit	5,242	4.8	49.5
General medical examination	4.465	4.1	53.6
Postpartum examination	3,665	3.4	57.0
Other vaginal symptoms	2,494	2.3	59.3
Vaginal discharge	2.276	2.1	61.4
Pap smear	2.256	2.1	63.5
Abdominal pain, cramps, spasms	2.104	1.9	65.4
Uterine and vaginal bleeding	2.081	1.9	67.3
Family planning, not otherwise specified	1.841	1.7	69.0
Contraceptive device	1.669	1.5	70.5
Pregnancy, unconfirmed	1.340	1.2	71.7
Pelvic symptoms	1.311	1.2	72.9
Contraceptive medication	1,174	1.1	74.0
Absence of menstruation (amenorrhea)	1,156	1.1	75.1
For cytology findings	981	0.9	76.0
Irregularity of menstrual flow	924	0.8	76.8
Irregularity of menstrual interval	900	0.8	77.6
Symptoms of infertility	847	0.8	78.4
Menstrual symptoms, other and unspecified	791	0.7	79.1
Cervicitis, vaginitis	776	0.7	79.8
Progress visit	639	0.6	80.4
Menopausal symptoms	598	0.5	80.9
Pain, site not referable to a specific body system	587	0.5	81.4
Preoperative visit for specified and unspecified types of surgery	545	0.5	81.9
Counseling and examination for pregnancy interruption	493	0.5	82.4
Problems of pregnancy and the postpartum period	*441	*0.4	82.8
Vulvar disorders	*429	*0.4	83.2
Counseling, not otherwise specified	*424	*0.4	83.6
Headache, pain in head	*420	*0.4	84.0
Pain or soreness of breast	*399	*0.4	84.4
Painful urination	*394	*0.4	84.8
Other diseases of female reproductive system	*369	*0.3	85.1
Fibroids and other uterine neoplasms	*356	*0.3	85.4
Lump or mass of breast	*353	*0.3	85.7

Table 7. Number, percent, and cumulative percent of office visits to obstetrician-gynecologists, by most frequent principal reasons for visit: United States, January 1980-December 1981

<sup>1</sup>Based on *A Reason for Visit Classification for Ambulatory Care*.<sup>10</sup> <sup>1</sup>Based on a total of 109,035,000 visits. Table 8. Percent and cumulative percent of office visits to obstetrician-gynecologists, by age and most frequent principal reasons for visit: United States, January 1980-December 1981

Age, principal reason for visit, and RVC code <sup>1</sup>	Percent of visits	Cumulative percent of visits
Under 25 years <sup>2</sup>		
Prenatal examination, routine	43.9	43.9
Gvnecological examination	6.4	50.3
Postpartum examination X215	3.9	54.2
Postoperative visit	2.8	57.0
General medical examination	2.4	59.4
Contraceptive medication	2.3	61.7
Vaginal discharge	2.3	64.0
Family planning, not otherwise specified	2.2	66.2
Abdominal pain, cramps, spasms	1.9	68.1
Other vaginal symptoms	1.8	69.9
Pregnancy, unconfirmed	1.7	71.6
Absence of menstruation (amenorrhea)	1.4	73.0
Pap smear	1.3	74.3
Uterine and vaginal bleeding	1.3	75.6
Contraceptive device	1.2	76.8
25-44 years <sup>3</sup>		
Prenatal examination, routine	37.5	37.5
Gynecological examination	9.4	46.9
Postoperative visit	5.0	51.9
General medical examination	4.1	56.0
Postpartum examination	3.7	59.7
Pap smear	2.3	62.0
Other vaginal symptoms	2.1	64.1
Contraceptive device	2.0	66.1
Abdominal pain, cramps, spasms	2.0	68.1
Vaginal discharge	1.9	70.0
Family planning, not otherwise specified	1.8	71.8
Uterine and vaginal bleeding	1.8	73.6
Symptoms of infertility	1.3	74.9
Pelvic symptoms	1.2	76.1
Pregnancy, unconfirmed	1.2	77.3
Absence of menstruation (amenormea)	1.0	78.3
Irregularity of menstrual flow	1.0	79.3
For cytology findings	0.9	80.2
Cervicius, vaginius	0.9	81.1
Irregularity of menstrual interval	0.8	81.9
45 years and over <sup>₄</sup>		
Gynecological examination	17.9	17.9
Postoperative visit	9.3	27.2
General medical examination	8.6	35.8
Uterine and vaginal bleeding	4.2	40.0
Other vaginal symptoms	4.2	44.2
Menopausal symptoms	3.8	48.0
Pap smear	3.0	51.0
Vaginal discharge	2.3	53.3

<sup>1</sup>Based on *A Reason for Visit Classification for Ambulatory Care* (RVC).<sup>10</sup> <sup>2</sup>Based on a total of 34,574,000 visits. <sup>3</sup>Based on a total of 61,233,000 visits. <sup>4</sup>Based on a total of 13,228,000 visits.

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Table 9. Number of office visits to obstetrician-gynecologists by age of patient and prior visit status, and percent distribution of office visits by principal diagnosis categories, according to age of patient and prior visit status: United States, January 1980-December 1981

		Age of patient			Prior visit status			
Principal diagnosis category and ICD-9-CM code <sup>1</sup>	All ages	Under 25 years	25-44 years	45 years and over	New patient	Old patient, new problem	Old patient, old problem	
			I	Number in th	ousands			
All visits	109,035	34,574	61,233	13,228	12,871	19,119	77,045	
				Percent dist	ribution			
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Infectious and parasitic diseases	3.2	3.3	3.2	*3.2	5.5	7.2	1.8	
Neoplasms	1.7	*0.2	1.4	7.5	*2.4	*1.4	1.7	
Endocrine, nutritional and metabolic diseases, and immunity disorders 240-279	1.3	*1.0	0.9	4.0	*1.9	*1.7	1.1	
Mental disorders	*0.4	*0.2	*0.4	*1.0	*0.5	0.5	0.4	
Diseases of the nervous system and sense organs	*0.1	*0.1	*0.1	*0.3	-	*0.4	*0.1	
Diseases of the circulatory system	1.3	*0.0	*0.5	8.3	*0.1	*1.4	1.5	
Diseases of the respiratory system	0.7	*1.0	*0.5	*1.4	*1.2	*1.9	*0.4	
Diseases of the digestive system	0.7	*0.7	*0.5	*1.4	*0.9	*1.3	*0.5	
Diseases of the genitourinary system	19.1	15.3	18.1	33.6	30.1	31.0	14.3	
Complications of pregnancy, childbirth, and the puerperium 630-676	2.7	3.6	2.8	*0.0	*3.3	3.7	2.3	
Diseases of the skin and subcutaneous tissue	0.5	*0.5	*0.5	*0.6	*0.6	*1.3	*0.3	
Diseases of the musculoskeletal system and connective tissue	0.6	*0.1	*0.6	*1.7	*0.5	*1.7	*0.4	
Symptoms, signs, and ill-defined conditions	1.8	1.4	1.9	*2.7	*2.3	2.7	1.5	
Injury and poisoning	1.0	*1.2	0.7	*1.5	*0.7	2.5	0.6	
Supplementary classification	62.5	68.9	65.8	30.1	47.2	38.0	71.1	
All other diagnoses	0.3	0.3	0.3	*0.5	0.7	0.5	0.3	
Unknown diagnoses	2.1	2.2	1.9	*2.2	*2.3	3.0	1.8	

<sup>1</sup>Based on International Classification of Diseases, 9th Revision, Clinical Modification.<sup>14</sup>

Table 10. Number, percent, and cumulative percent of office visits to obstetrician-gynecologists, by most frequent principal diagnosis categories: United States, January 1980-December 1981

	Number of visits in		Cumulative
Principal diagnosis category and ICD-9-CM code'	thousands	Percent 2	percent
Normal pregnancy	39,459	36.2	36.2
Gynecological examination	9,927	9.1	45.3
Inflammatory disease of cervix, vagina, and vulva	4,247	3.9	49.2
Followup examination following surgery V67.0	3,960	3.6	52.8
Contraceptive management	3,569	3.3	56.1
Postpartum care and examination	3,411	3.1	59.2
Disorders of menstruation and other abnormal bleeding from female genital tract	3,220	3.0	62.2
General medical examination	3,196	2.9	65.1
Menopausal and postmenopausal disorders	2,102	1.9	67.0
Candidiasis	1,639	1.5	68.5
Pain and other symptoms associated with female genital organs	1,599	1.5	70.0
Inflammatory disease of ovary, fallopian tube, pelvic cellular tissue, and peritoneum	1,337	1.2	71.2
Observation and evaluation for suspected conditions	1,225	1.1	72.3
Infertility, female	1,112	1.0	73.3
Essential hypertension	990	0.9	74.2
Noninflammatory disorders of cervix	963	0.9	75.1
Noninflammatory disorders of ovary, fallopian tube, and broad ligament	886	0.8	75.9
Uterine leiomyoma (benign neoplasm, fibroid)	878	0.8	76.7
Genital prolapse	766	0.7	77.4
Cystitis	745	0.7	78.1
Pap smear	694	0.6	78.7
Trichomoniasis	669	0.6	79.3
Disorders of uterus, not elsewhere classified	610	0.6	79.9
Endometriosis	570	0.5	80.4
Other disorders of urethra and urinary tract	547	0.5	80.9
Benign mammary dysplasias (including fibrocystic disease of breast)	531	0.5	81.4
Nonspecific abnormal histological and immunological findings	509	0.5	81.9
Noninflammatory disease of vagina	*407	*0.4	82.3

<sup>1</sup>Based on International Classification of Diseases, 9th Revision, Clinical Modification.<sup>14</sup> <sup>2</sup>Based on a total of 109,035,000 visits.

Table 11. Percent and cumulative percent of office visits to obstetrician-gynecologists, by age and most frequent principal diagnosis categories: United States, January 1980-December 1981

Age, principal diagnosis category	Percent of	Cumulative percent of
and ICD-9-CM code1	visits	visits
Under 25 ye: "s <sup>2</sup>		· · · · · · · · · · · · · · · · · · ·
Normal pregnancy	46.1	46.1
Gynecological examination	7.4	53.5
Postpartum care and examination	3.9	57.4
Contraceptive management V25	3.9	61.3
Inflammatory disease of cervix, vagina, and vulva	3.9	65.2
Disorders of menstruation and other abnormal bleeding from female genital tract	2.8	68.0
Followup examination following surgery	2.1	70.1
General medical examination	1.9	72.0
Pain and other symptoms associated with female genital organs	1.7	73.7
Inflammatory disease of ovary, fallopian tube, pelvic cellular tissue, and peritoneum	1.7	75.4
Candidiasis	*1.1	76.5
25-44 years <sup>3</sup>		
Normal pregnancy	38.1	38.1
Gynecological examination	10.3	48.4
Followup examination following surgery	3.8	52.2
Inflammatory disease of cervix, vagina, and vulva	3.8	56.0
Contraceptive management	3.6	59.6
Postpartum care and examination V24	3.3	62.9
General medical examination	3.2	66.1
Disorders of menstruation and other abnormal bleeding from female genital tract	3.1	69.2
Candidiasis	1.6	70.8
Infertility, female	1.5	72.3
Pain and other symptoms associated with female genital organs	1.5	73.8
Inflammatory disease of ovary, fallopian tube, pelvic cellular tissue, and peritoneum	1.2	75.0
Observation and evaluation for suspected conditions	1.1	76.1
Noninflammatory disorders of cervix	1.0	77.1
Pap smear	0.8	77.9
Endometriosis	0.8	78.7
45 years and over <sup>4</sup>		
Menopausal and postmenopausal disorders	13.8	13.8
Gynecological examination	12.2	26.0
Followup examination following surgery	6.9	32.9
Essential hypertension	5.4	38.3
Inflammatory disease of ovary, fallopian tube, pelvic cellular tissue, and peritoneum	4.3	42.6
General medical examination	4.3	46.9
Uterine leiomyoma (benign neoplasm, fibroid)	3.5	50.4
Genital prolapse	3.4	53.8

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<sup>1</sup>Based on International Classification of Diseases, 9th Revision, Clinical Modification.<sup>14</sup> <sup>2</sup>Based on a total of 34,574,000 visits. <sup>3</sup>Based on a total of 61,233,000 visits. <sup>4</sup>Based on a total of 13,228,000 visits.

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Table 12. Number of office visits to obstetrician-gynecologists, by age of patient and prior visit status; percent of office visits, by age of patient, prior visit status, diagnostic services, and nonmedication therapy; and percent distribution of office visits by number of medications, according to age of patient and prior visit status: United States, January 1980-December 1981

		Age of patient				Prior visit status					
Service or therapy	All ages	Under 25 years	25-44 years	45 years and over	New patient	Old patient, new problem	Old patient, old problem				
	Number in thousands										
All visits	109,035	34,574	61,233	13,228	12,871	19,119	77,045				
		Percent of visits									
Diagnostic service <sup>1</sup>											
None	2.4	2.0	2.5	*2.6	*1.6	3.0	2.4				
Limited history and/or examination	64.0	66.6	64.0	57.3	39.6	61.3	68.8				
General history and/or examination	17.7	17.2	16.9	22.6	49.2	20.0	11.9				
Pap test	29.4	23.4	29.0	46.7	50.7	35.5	24.3				
Clinical laboratory test	42.8	45.5	42.0	39.7	47.5	41.9	42.3				
X-ray	1.6	*0.7	1.6	3.9	*1.8	2.9	1.2				
Blood pressure check	68.4	69.9	67.3	69.4	69.8	58.0	70.7				
Electrocardiogram	*0.3	*0.1	*0.2	*1.6	*0.2	*0.4	*0.3				
Endoscopy	0.8	*.06	0.8	*1 7	*1.7	*1.5	*0.5				
Mental status examination	0.8	*1.0	0.7	*0.7	*0.3	*0.3	1.0				
Other	7.3	7.7	7.7	4.0	6.0	5.0	81				
					•••	0.0	011				
Nonmedication therapy <sup>1</sup>											
None	51.8	49.8	51.8	56.9	39.1	46.5	55.3				
Physiotherapy	1.4	*0.9	1.6	*1.5	1.0	2.4	1.2				
Office surgery	4.8	4.7	4.8	5.1	8.0	7.8	3.5				
Family planning	15.8	20.8	16.2	*1.1	20.8	18.2	14.4				
Therapeutic listening	2.7	2.2	2.5	4.9	*3.2	2.9	2.6				
Diet counseling	7.6	8.5	7.1	7.5	8.6	6.5	7.7				
Family or social counseling	2.5	2.9	2.4	*2.1	4.2	2.3	2.3				
Medical counseling	25.6	24.3	25.6	29.0	32.3	29.2	23.5				
Other	1.1	*1.0	1.1	*1.2	*1.9	*1.2	0.9				
				Percent distrib	ution						
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0				
Number of medications											
None	58.4	53.4	63.4	48.3	49.3	48.2	62.5				
1	30.3	35.3	27.3	31.2	35.4	36.0	28.0				
å	8.8	9.6	73	13.8	123	12.5	73				
2	19	1.4	17	4.6	*2 7	2.0	1.0				
4 or more	0.6	*0.4	*0.3	*2.1	*0.3	*0.6	0.6				
		•••			0.0	0.0	0.0				

<sup>1</sup>Percents will not total 100.0 because more than 1 service or therapy may have been rendered during a visit.

Table 13. Number of drug mentions in office visits to obstetrician-gynecologists, by age of patient and prior visit status, and percent distribution by selected therapeutic categories, according to age of patient and prior visit status: United States, January 1980-December 1981

Age of patient				Prior visit status	1		
Selected therapeutic category <sup>1</sup>	All ages	Under 25 years	25-44 years	45 years and over	New patient	Old patient, new problem	Old patient; old problem
				Number in tho	usands		
All categories	61,204	20,802	29,550	10,852	8,933	13,696	38,576
				Percent distrit	oution		
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Antihistamine drugs	2.2	2.6	2.5	*0.9	*2.5	2.1	2.2
Anti-infective drugs	15.9	16.8	17.2	10.7	19.1	24.9	12.0
Autonomic drugs	1.5	*1.1	*1.5	*2.2	*1.0	*2.0	1.4
Blood formation and coagulation	4.7	5.0	5.4	*2.1	5.7	2.0	5.4
Cardiovascular drugs	1.9	*0.2	*0.7	8.7	*0.1	*0.9	2.7
Central nervous system drugs	7.7	5.7	8.1	10.2	8.8	9.0	6.9
Electrolytic, caloric, and water balance	3.0	*0.8	2.4	8.8	*0.6	*2.6	3.7
Expectorants and cough preparations	0.9	*0.7	*1.0	*1.1	*0.8	*1.3	*0.8
Gastrointestinal drugs	1.9	*2.1	*1.5	*2.8	*0.9	*1.9	2.2
Hormones and synthetic substitutes	26.0	28.5	21.8	32.7	24.9	22.2	27.6
Skin and mucous membrane preparations	10.7	9.9	11.6	10.0	11.7	15.7	8.7
Vitamins	19.3	22.5	22.2	5.4	18.4	10.1	22.8
Other, unclassified, or undetermined	4.2	4.2	4.1	4.5	5.5	5.4	3.5

<sup>1</sup>Based on the classification system of the American Hospital Formulary Service.<sup>13</sup>

# Table 14. Number, percent, and cumulative percent of drugs most frequently mentioned in office visits to obstetrician-gynecologists by name and therapeutic use: United States, January 1980-December 1981

Name of drug <sup>1</sup>	Therapeutic use	Number of mentions in thousands	Percent <sup>2</sup>	Cumulative percent
	vitamine	2 042	50	50
Premarin (estrogens)	estrogen replacement therany	2 355	3.0	0.0
Monistat (missingers)	estrogen replacement merapy	2,000	3.0	10.0
Ortho-novum (norethindrone estradiol)	oral contracentive	2,022	3.0	16.0
Materna (vitamins)	prenatal supplement	1 807	3.0	10.2
Lo/ovral (norgestrel)	oral contracentive	1,037	24	21 7
Stuartnatal $1 \pm 1$	vitamine	1,430	2.4	21.7
	antibiotio	1,47	2.4	24.1
Flagul (metronidazola)	trichomonacidal agent	1 295	2.4	20.5
Vitamins unspecified	vitamine	1 112	1.9	20.0
Ovral (norgestrel estradiol)	oral contracentive	951	1.0	32.0
Provera (medroxyprogesterope)	threatened and babitual abortion	948	1.0	33.6
Norinvi (norethindrone mestranol)	oral contracentive	920	1.5	35.1
Demulen (ethynodial estradial)	low estrogen oral contracentive	016	1.5	36.6
Sultrin (sulfathiozole, sulfacetamide)	vacinal infections	864	1.5	38.0
Contracentive agent unspecified	contracentives	815	1.4	30.3
Betadipe (novidane-iodine)	antisentic	801	1.0	40.6
Nataline (povidence loane)	prenatal supplement	794	1.0	41.9
AVC (sulfanilamide)	antihacterial	777	13	43.2
	iron deficiency	716	1.0	40.2
Tetracucline	antibiotic	710	1.4	44.4
Gyne-lotrimin (clotrimazole)	antifundal	624	1.1	46.5
Bendectin (decaprvn)	nausea and vomiting of pregnancy	595	10	47.5
Mycostatin (nystatin)	antifundal	561	0.0	48.4
Natabec (vitamins)	prenatal supplement	541	0.9	49.3
Dvazide (triamterene, bydrochlorothiazide)	divitetic edema hypertension	509	0.9	50.1
Valium (diazenam)	anxiety disorders	*449	*0.7	50.8
Motrin (ibuprofen)	anti-inflammatory analoesic	*443	*0.7	51.5
Pramet FA (vitamins)	nrenatal supplement	*418	*0.7	52.2
Mycolog (triamcinolone, neomycin)	infected or inflamed skin	*402	*0.7	52.9
Mycelex (clotrimazole)	antifungal	*395	*0.6	53.5
Loestrin (norethindrone, estradiol)	oral contraceptive	*337	*0.6	54.1
Ovcon (norethindrone, estradiol)	oral contraceptive	*336	*0.5	54.6
Modicon (norethindrone, estradiol)	oral contraceptive	*335	*0.5	55.1
Macrodantin (nitrofurnatoin)	antibacterial, urinary tract infections	*330	*0.5	55.6

<sup>1</sup>Based on the physician's entry on the Patient Record form. <sup>2</sup>Based on a total of 61,204,000 drug mentions.

Table 15. Number of office visits to obstetrician-gynecologists by age of patient and prior visit status, and percent distribution of office visits by duration and disposition of visits, according to age of patient and prior visit status: United States, January 1980-December 1981

	Age of patient				Prior visit status		
Duration and disposition of visit	All ages	Under 25 years	25-44 years	45 years and over	New patient	Old patient, new problem	Old patient, old problem
				Number in tho	usands		
All visits	109,035	34,574	61,233	13,228	12,871	19,119	77,045
				Percent of v	isits		
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Duration of visit							
0 minutes <sup>1</sup>	0.9	*1.2	0.8	*1.0	*0.2	*0.7	1.1
1-5 minutes	18.0	22.4	17.7	8.1	4.4	10.0	22.3
6-10 minutes	30.7	31.6	31.6	24.7	19.3	31.1	32.6
11-15 minutes	26.2	24.4	26.0	31.8	24.5	27.9	26.0
16-30 minutes	21.7	18.5	21.5	30.6	44.3	28.0	16.3
31 minutes or longer	2.5	1.9	2.5	3.8	7.2	2.5	1.7
Disposition of visit <sup>2</sup>							
No followup planned	6.7	6.4	7.0	5.8	8.8	10.9	5.3
Return at specified time	75.7	77.9	75.8	69.1	63.3	59.8	81.7
Return if needed	15.3	15.3	14.8	18.0	17.7	20.9	13.6
Telephone followup planned	2.3	1.6	2.5	3.6	3.7	5.2	1.4
Referred to other physician	1.8	*1.0	1.7	4.5	*2.8	3.5	1.2
Returned to referring physician	0.7	*0.8	*0.6	*1.2	3.7	*0.6	*0.3
Admit to hospital	3.0	1.8	3.1	5.4	5.2	4.6	2.2
Other	*0.1	*0.2	*0.1	*0.0	*0.4	*0.2	*0.1

<sup>1</sup>Represents visits in which there was no face-to-face encounter between patient and physician. <sup>2</sup>Percents will not total 100.0 because more than 1 disposition was possible.

Table 16. Number and percent of office visits to obstetrician-gynecologists by diagnostic services, major reason for visit, and principal reason for visit module: United States, January 1980-December 1981

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		Diagnostic service <sup>1</sup>									
Major reason for visit and principal reason for visit module	Number of visits in thousands	None	Limited history and/or examination	General history and/or examination	Pap test	Clinical laboratory test	X-ray	Blood pressure check	Endos- copy	Mental status exam- ination	Other
						Perc	ent				
Major reason for visit											
Acute problem	19,945 9,001 4,849 7,781 67,458	3.9 *4.5 *5.6 *2.7 1.4	61.2 56.6 64.7 82.0 63.7	20.8 16.9 18.1 *4.8 18.3	29.1 31.0 29.6 10.8 31.4	42.3 29.8 38.0 18.6 47.9	2.8 *1.8 *3.1 *0.5 1.2	53.5 54.0 57.3 48.7 77.8	2.4 *0.8 1.6 *0.2 *0.4	*0.6 *0.5 *0.2 *0.7 1.0	4.8 5.6 *6.6 *2.7 9.4
Principal reason for visit module and RVC code <sup>2</sup>											
Symptom module	25,569 4,269	2.8 *4.5	61.9 59.5	20.6 20.3	31.8 23.5	42.0 29.3	2.7 *1.6	58.1 47.2	*0.7 *1.5	*0.7 *0.4	6.3 *4.7
preventive module	-67,473 7,799	1.3 7.7	63.9 76.1	18.1 *4.5	30.8 9.8	47.0 16.6	1.3 -	77.0 46.9	*0.3 *1.0	1.0 *0.2	8.9 *3.1
effects module	468 1,158 *310	*4.7 *10.3 -	*67.5 42.6 *31.2	*22.1 *10.0 *48.6	*7.7 43.9 *65.6	*25.2 *26.2 *81.8	*14.8 *0.9 —	*24.8 *31.3 *58.9	 *26.0 *4.9	-	*2.7 *6.5 *11.3

<sup>1</sup>Percents will not total 100.0 because more than 1 service may have been rendered during a visit. <sup>2</sup>Based on A Reason for Visit Classification for Ambulatory Care.<sup>10</sup>

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Table 17. Number of office visits to obstetrician-gynecologists by principal diagnosis categories, and percent of office visits by selected characteristics and principal diagnosis categories: United States, January 1980-December 1981

	Principal diagnosis category and ICD-9-CM code <sup>1</sup>					
Selected characteristic	Infectious and parasitic diseases 000-139	Diseases of the genitourinary system 580-629	Complications of pregnancy, childbirth and the puerperium 630-676	Supplementary classification V01-V82		
		Number i	n thousands			
All visits	3,477	20,838	2,933	68,121		
		Per	rcent			
Nonmedication therapy <sup>2</sup>						
None	56.0	46.6	43.6	53.9		
Office surgery	*9.2	7.9	*9.2	3.5		
Family planning	*8.2	14.1	16.7	18.4		
Therapeutic listening	*1.2	3.4	*3.7	2.2		
Diet counseling	*2.5	2.3	*7.8	9.1		
Family or social counseling	*2.4	2.1	*4.2	2.5		
Medical counseling	27.1	34.7	26.6	21.7		
Other	*1.6	2.4	*3.1	2.2		
Number of medications						
None	*12.6	44.3	53.9	67.5		
1	57.5	37.9	25.1	26.9		
2	22.0	12.2	19.0	4.9		
3 or more	*6.1	4.5	*2.8	0.7		
Duration						
0 minuton <sup>3</sup>	*0 5	*1 7	*0.7	*0 6		
	2.5	1.7		0.0		
1-5 minutes	10.0	8.9	12.0	20.0		
0-10 minutes	40.2	25.0	39.1	32.5		
16.20 minutes	20.0	27.4	27.0	20.4		
10-30 minutes	20.8	34.0	17.5	10.2		
St finitutes of longer	"2.3	2.4	"3.1	2.0		
Disposition <sup>4</sup>			,			
No followup planned	*8.3	6.4	*5.9	6.6		
Return at specified time	55.3	64.5	70.3	82.6		
Return if needed	33.3	22.4	*9.8	11.7		
Telephone followup planned	*3.9	5.7	*3.3	0.8		
Referred to another physician	*1.4	2.6	*1.2	. 1.0		
Returned to referring physician	*1.7	*1.2	*2.6	*0.5		
Admit to hospital	*1.9	5.8	13.9	1.4		
Other	*0.2	*0.1	-	*0.1		

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<sup>1</sup>Based on *International Classification of Diseases, 9th Revision, Clinical Modification.*<sup>14</sup> <sup>2</sup>Percents will not total 100.0 because more than 1 service may have been rendered during a visit. <sup>3</sup>Represents visits in which there was no face-to-face encounter between patient and physician. <sup>4</sup>Percents will not total 100.0 because more than 1 disposition was possible.

Table 18. Mean duration of office visits to obstetrician-gynecologists, by selected principal diagnoses: United States, January 1980-December 1981

Principal diagnosis and ICD-9-CM code <sup>1</sup>	Mean duration in minutes
All diagnoses	13.9
Candidiasis	14.7
Trichomoniasis	13.6
Uterine leiomyoma	18.4
Essential hypertension	11.2
Cystitis	14.9
Other disorders of urethra and urinary tract	18.8
Benign mammary dysplasias	14.8
Inflammatory disease of ovary, fallopian tube, pelvic cellular tissue, and peritoneum	15.7
Inflammatory disease of cervix, vagina, and vulva	16.2
Endometriosis	17.0
Genital prolapse	19.2
Noninflammatory disorders of ovary, fallopian tube, and broad ligament	15.4
Disorders of uterus, not elsewhere classified	15.7
Noninflammatory disorders of cervix	18.7
Noninflammatory disease of vagina	15.3
Pain and other symptoms associated with female organs	16.8
Disorders of menstruation and other abnormal bleeding from female genital tract	16.1
Menopausal and postmenopausal disorders	16.5
Infertility, female	15.4
Nonspecific abnormal histological and immunological findings	18.8
Normal pregnancy	10.7
Postpartum care and examination	13.5
Contraceptive management	16.4
Followup examination following surgery	12.3
General medical examination	17.9
Observation and evaluation for suspected conditions	11.6
Gynecological examination	15.9
Pap smear	12.8

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<sup>1</sup>Based on International Classification of Diseases, 9th Revision, Clinical Modification.<sup>14</sup>

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# Appendix I Technical notes

This report is based on data collected during 1980 and 1981 in the National Ambulatory Medical Care Survey (NAMCS), an annual sample survey of office-based physicians conducted by the Division of Health Care Statistics of the National Center for Health Statistics (NCHS). The two surveys were conducted with identical instruments, definitions, and procedures. Two years of data were combined to increase the reliability of the estimates. The annual survey design and procedures are presented in the following sections.

#### Statistical design

#### Scope of the survey

The target population of NAMCS includes office visits made within the conterminous United States by ambulatory patients to nonfederally employed physicians who are principally engaged in office-based patient care practice, but not in the specialties of anesthesiology, pathology, or radiology. Telephone contacts and nonoffice visits are excluded from NAMCS.

#### Sample design

The NAMCS utilizes a three-stage survey design that involves probability samples of primary sampling units (PSU's), physician practices within PSU's, and patient visits within physician practices. The first-stage sample of 87 PSU's was selected by the National Opinion Research Center (NORC) of the University of Chicago, the organization responsible for NAMCS field and data processing operations under contract to NCHS. A PSU is a county, a group of adjacent counties, or a standard metropolitan statistical area (SMSA). A modified probability-proportional-to-size procedure using separate sampling frames for SMSA's and for nonmetropolitan counties was used to select the sample PSU's. Each frame was stratified by region, size of population, and demographic characteristics of the PSU's, and was divided into sequential zones of 1 million residents; then, a random number was drawn to determine which PSU came into the sample from each zone.

The second stage consisted of a probability sample of practicing physicians, selected from the masterfiles maintained by the American Medical Association (AMA) and the American Osteopathic Association (AOA), who met the following criteria:

- Office-based, as defined by AMA and AOA.
- Principally engaged in patient care activities.

- Nonfederally employed.
- Not in the specialties of anesthesiology, pathology, clinical pathology, forensic pathology, radiology, diagnostic radiology, pediatric radiology, or therapeutic radiology.

Within each PSU, all eligible physicians were sorted by nine specialty groups: general and family medicine, internal medicine, pediatrics, other medical specialties, general surgery, obstetrics and gynecology, other surgical specialties, psychiatry, and all other specialties. Then, within each PSU, a systematic random sample of physicians was selected so that the overall probability of selecting any physician in the United States was approximately constant.

During 1980–81 the NAMCS physician sample included 5,805 physicians. Sample physicians were screened at the time of the survey to ensure that they met the aforementioned criteria; 1,124 physicians did not meet the criteria and were, therefore, ruled out of scope (ineligible) for the study. The most common reasons for being out of scope were that the physician was retired, deceased, or employed in teaching, research, or administration. Of the 4,681 inscope (eligible) physicians, 3,676 (78.5 percent) participated in the study. Of the participating physicians, 509 saw no patients during their assigned reporting period because of vacations, illnesses, or other reasons for being temporarily out of office-based practice. The physician sample size and response data by physician specialty are shown in table I.

The third stage was the selection of patient visits within the annual practices of the sample physicians. This stage involved two steps. First, the total physician sample was divided into 52 random subsamples of approximately equal size; then each subsample was randomly assigned to 1 of the 52 weeks in the survey year. Second, a systematic random sample of visits was selected by the physician during the assigned reporting week. The visit sampling rate varied for this final step from a 100 percent sample for very small practices to a 20 percent sample for very large practices. The method for determining the visit sampling rate is described later in this appendix and in the Induction Interview form in appendix III. During 1980– 81, sample physicians completed 89,447 usable Patient Record forms.

#### Data collection and processing

#### **Field procedures**

Both mail and telephone contacts were used to enlist sample physicians for NAMCS. Initially, physicians were sent introductory letters from the Director of NCHS (see appendix III). When appropriate, a letter from the physician's specialty

NOTE: Prepared by Thomas McLemore, Division of Health Care Statistics.

Table I. Distribution of physicians in the 1980-81 National Ambulatory Medical Care Survey samples and response rates, by physician specialty

Physician specialty	Gross total	Out of scope	Net total	Nonrespondents	Respondents	Response rate
All specialties	5,805	1,124	4,681	1,005	3,676	78.5
General and family practice	1,340	289	1,051	272	779	74.1
Medical specialties.	1,695	296	1,399	298	1,101	78.7
Internal medicine	871	158	713	182	531	74.5
Pediatrics	414	83	331	42	289	87.3
Other medical specialties	410	55	355	74	281	79.2
Surgical specialties	1,978	246	1,732	351	1,381	79.7
General surgery	521	75	446	115	331	74.2
Obstetrics and gynecology	484	71	413	63	350	84.7
Other surgical specialties.	973	100	873	173	700	80.2
Other specialties.	792	293	499	84	415	83.2
Psychiatry	414	96	318	43	275	86.5
Other specialties	378	197	181	41	140	77.3

organization endorsing the survey and urging his participation was enclosed with the NCHS letter. Approximately 2 weeks prior to the physician's assigned reporting period, a field representative telephoned the physician to explain briefly the study and arrange an appointment for a personal interview. Physicians who did not initially respond were usually recontacted via telephone or special explanatory letter and requested to reconsider participation in the study.

During the personal interview the field representative determined the physician's eligibility for the study, obtained his cooperation, delivered survey materials with verbal and printed instructions, and assigned a predetermined Monday-Sunday reporting period. A short induction interview concerning basic practice characteristics, such as type of practice and expected number of office visits, was conducted. Office staff who were to assist with data collection were invited to attend the instructional session or were offered separate instructional sessions.

The field representative telephoned the sample physician prior to and during the assigned reporting week to answer questions that might have arisen and to ensure that survey procedures were going smoothly. At the end of the reporting week, the participating physician mailed the completed survey materials to the field representative who edited the forms for completeness before transmitting them for central data processing. At this point problems of missing or incomplete data were resolved by telephone followup by the field representative to the sample physician; if no problems were found, field procedures were considered complete regarding the sample physician's participation in NAMCS.

#### **Data collection**

The actual data collection for NAMCS was carried out by the physician, assisted by his office staff when possible. Two data collection forms were employed by the physician: the Patient Log and the Patient Record form (see appendix III). The Patient Log, a sequential listing of patients seen in the physician's office during his assigned reporting week, served as the sampling frame to indicate the office visits for which data were to be recorded. A perforation between the patient's name and patient visit information permitted the physician to detach and retain the listing of patients, thus, assuring the anonymity of the physician's patients.

Based on the physician's estimate of the expected number of office visits and expected number of days in practice during the assigned reporting week, each physician was assigned a visit sampling rate. The visit sampling rates were designed so that about 30 Patient Record forms would be completed by each physician during the assigned reporting week. Physicians expecting 10 or fewer visits per day recorded data for all visits. Those physicians expecting more than 10 visits per day recorded data for every second, third, or fifth visit based on the predetermined sampling interval. These visit sampling procedures minimized the physician's data collection workload and maintained approximately equal reporting levels among sample physicians regardless of practice size. For physicians recording data for every second, third, or fifth patient visit, a random start was provided on the first page of the Patient Log so that the predesignated sample visits recorded on each succeeding page of the Patient Log provided a systematic random sample of patient visits during the reporting period.

## **Data processing**

In addition to followups for missing and inconsistent data made by the field staff, numerous clerical edits were performed on data received for central data processing. These manual edit procedures proved quite efficient, reducing item nonresponse rates to 2 percent or less for most data items. 5

Information contained in item 6 (Patient's problem or reason for visit) of the Patient Record form was coded according to A Reason for Visit Classification for Ambulatory Care (RVC).<sup>6</sup> Diagnostic information (item 9 of the Patient Record form) was coded according to the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM).<sup>9</sup> A maximum of three entries were coded from each of these items. Prior to coding, Patient Record forms were grouped into batches with approximately 650 forms per batch. Quality control for the medical coding operation involved a two-way 5-percent independent verification procedure. Error rates were defined as the number of incorrectly coded entries divided by the total number of coded entries. The estimated error rates for the 1980–81 medical coding operation were 1.7 percent for

NOTE: A list of references follows the text.

item 6 and 2.3 percent for item 9. Additionally, a dependent verification procedure was used to review and adjudicate all records in batches with excessive error rates. This procedure further reduced the estimated error rates to 1.6 percent for item 6 and 2.1 percent for item 9.

The NAMCS medication data (item 11 of the Patient Record form) was classified and coded according to a scheme developed at NCHS based on the American Society of Hospital Pharmacists' Drug Product Information File. A description of the new drug coding scheme and of the NAMCS drug data processing procedures is contained in *Vital and Health Statistics*, Series 2, No. 90.<sup>7</sup> A two-way 100 percent independent verification procedure was used to control the medication coding operation. As an additional quality control, all Patient Record forms with differences between drug coders or with illegible drug entries were reviewed and adjudicated at NCHS.

Information from the Induction Interview and Patient Record forms was keypunched with 100 percent verification and converted to computer tape. At this point, extensive computer consistency and edit checks were performed to ensure complete and accurate data. Incomplete data items were imputed by assigning a value from a randomly selected Patient Record form with similar characteristics; patient sex and age, physician specialty, and broad diagnostic categories were used as the basis for these imputations.

### **Estimation procedures**

Statistics from NAMCS were derived by a multistage estimation procedure that produces essentially unbiased national estimates and has three basic components: (1) inflation by reciprocals of the probabilities of selection, (2) adjustment for nonresponse, and (3) a ratio adjustment to fixed totals. Each component is briefly described below.

### Inflation by reciprocals of probabilities of selection.

Because the survey utilized a three-stage sample design, three probabilities of selection existed: (1) the probability of selecting the PSU, (2) the probability of selecting the physician within the PSU, and (3) the probability of selecting an office visit within the physician's practice. The third probability was defined as the number of office visits during the physician's assigned reporting week divided by the number of Patient Record forms completed. All weekly estimates were inflated by a factor of 52 to derive annual estimates.

#### Adjustment for nonresponse

NAMCS data were adjusted to account for sample physicians who were inscope, but did not participate in the study. This adjustment was calculated in order to minimize the impact of response on final estimates by imputing to nonresponding physicians the practice characteristics of similar responding physicians. For this purpose, physicians were judged similar if they had the same specialty designation and practiced in the same PSU.

#### Ratio adjustment

A poststratification adjustment was made within each of nine physician specialty groups. The ratio adjustment was a multiplication factor that had as its numerator the number of physicians in the universe in each physician specialty group and as its denominator the estimated number of physicians in that particular specialty group. The numerator was based on figures obtained from the AMA and AOA masterfiles, and the denominator was based on data from the sample.

#### Reliability of estimates

As in any survey, results are subject to both sampling and nonsampling errors. Nonsampling errors include reporting and processing errors, as well as biases due to nonresponse and incomplete response. The magnitude of the nonsampling errors cannot be computed. However, these errors were kept to a minimum by procedures built into the survey's operation. To eliminate ambiguities and encourage uniform reporting, careful attention was given to the phrasing of questions, terms, and definitions. Also, extensive pretesting of most data items and survey procedures was performed. The steps taken to reduce bias in the data are discussed in the sections on field procedures and data collection. Quality control procedures and consistency and edit checks discussed in the data processing section reduced errors in data coding and processing. However, because survey results are subject to sampling and nonsampling errors, the total error will be larger than the error due to sampling variability alone.

Because the statistics presented in this report are based on a sample, they differ somewhat from the figures that would be obtained if a complete census had been taken using the same forms, definitions, instructions, and procedures. However, the probability design of NAMCS permits the calculation of sampling errors. The standard error is primarily a measure of sampling variability that occurs by chance because only a sample rather than the entire population is surveyed. The standard error, as calculated in this report, also reflects part of the variation that arises in the measurement process, but does not include estimates of any systematic biases that may be in the data. The chances are about 68 out of 100 that an estimate from the sample would differ from a complete census by less than the standard error. The chances are about 95 out of 100 that the difference would be less than twice the standard error, and about 99 out of 100 that it would be less than 21/2 times as large.

The relative standard error of an estimate is obtained by dividing the standard error by the estimate itself and is expressed as a percent of the estimate. For this report, an asterisk (\*) precedes any estimate with more than a 30 percent relative standard error.

Estimates of sampling variability were calculated using the method of half-sample replication. This method yields overall variability through observation of variability among random subsamples of the total sample. A description of the development and evaluation of the replication technique for error estimation has been published.<sup>14,15</sup> Approximate relative standard errors for aggregate estimates are presented in figures I and II.

NOTE: A list of references follows the text.

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Figure I. Approximate relative standard errors for estimated numbers of office visits based on all physician specialties (A), and individual specialties (B), 1980-81 National Ambulatory Medical Care Survey

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Figure II. Approximate relative standard errors for estimated numbers of drug mentions based on all physician specialties (A), and individual specialties (B), 1980–81 National Ambulatory Medical Care Survey

To derive error estimates that would be applicable to a wide variety of statistics and could be prepared at moderate cost, several approximations were required. As a result, the relative standard errors shown in figures I and II should be interpreted as approximate rather than exact for any specific estimate. Directions for determining approximate relative standard errors follow.

#### **Estimates of aggregates**

Approximate relative standard errors (in percent) for aggregate statistics are presented in figures I and II. The approximate relative standard errors for aggregate estimates of office visits are shown in figure I, and the approximate relative standard errors for aggregate estimates of drug mentions are shown in figure II. In each figure, curve A represents the relative standard errors appropriate for estimates based on all physician specialties, and curve B represents relative standard errors appropriate for estimates based on an individual physician specialty. For the specific case where the aggregate estimate of interest is the number of mentions of a specific drug, for example, the number of mentions of Dyazide, figure I, curve B should be used to obtain approximate relative standard errors.

Instead of using figures I and II, relative standard errors for aggregate estimates may be calculated directly using the following formulae where x is the aggregate estimate of interest in thousands. For visit estimates based on all physician specialties,

$$RSE(x) = \sqrt{0.001111 + \frac{39.84195}{x} \cdot 100.0}$$

For visit estimates based on an individual physician specialty,

$$RSE(x) = \sqrt{0.003757 + \frac{42.88175}{x} \cdot 100.0}$$

For drug mention estimates based on all physician specialties,

$$RSE(x) = \sqrt{0.001647 + \frac{58.48328}{x} \cdot 100.0}$$

For drug mention estimates based on an individual physician specialty,

$$RSE(x) = \sqrt{0.004696 + \frac{59.50164}{x} \cdot 100.0}$$

#### **Estimates of percents**

Approximate relative standard errors (in percent) for estimates of percents may be calculated from figures I and II as follows. From the appropriate curve obtain the relative standard error of the numerator and denominator of the percents. Square each of the relative standard errors, subtract the resulting value for the denominator from the resulting value for the numerator, and extract the square root. This approximation is valid if the relative standard error of the denominator is less than 0.05 or if the relative standard errors of the numerator and denominator are both less than 0.10.

Alternatively, relative standard errors for percentages may be calculated directly using the following formulae where p is the percent of interest and x is the base of the percent in thousands. For visit percentages based on all physician specialties,

RSE(p) = 
$$\sqrt{\frac{39.84195 \cdot (1-p)}{p \cdot x}} \cdot 100.0$$

For visit percentages based on an individual physician specialty,

RSE(p) = 
$$\sqrt{\frac{42.88175 \cdot (1-p)}{p \cdot x}} \cdot 100.0$$

For drug mention percentages based on all physician specialties,

RSE(p) = 
$$\sqrt{\frac{58.48328 \cdot (1-p)}{p \cdot x}} \cdot 100.0$$

For drug mention percents based on an individual physician specialty,

RSE(p) = 
$$\sqrt{\frac{59.50164 \cdot (1-p)}{p \cdot x}} \cdot 100.0$$

# Estimates of rates where the numerator is not a subclass of the denominator

Approximate relative standard errors for rates in which the denominator is the total United States population or one or more of the age-sex-race groups of the total population are equivalent to the relative standard error of the numerator that can be obtained from figures I or II.

# Estimates of differences between two statistics

The relative standard errors shown in this appendix are not directly applicable to differences between two sample estimates. The standard error of a difference is approximately the square root of the sum of squares of each standard error considered separately. This formula represents the standard error quite accurately for the difference between separate and uncorrelated characteristics, although it is only a rough approximation in most other cases.

## **Tests of significance**

In this report, the determination of statistical inference is based on the *t*-test with a critical value of 1.96 (0.05 level of significance). Terms relating to differences, such as "higher," and "less" indicate that the differences are statistically significant. Terms such as "similar" or "no difference" mean that no statistical significance exists between the estimates being compared. 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. Table II. Estimates of the civilian noninstitutionalized population of the United States used in computing annual visit rates in this report, by race, ethnicity, sex, and age: 1980-81 and 1980

		Ra	Ethnicity			
Sex and age	All	White	Black	Other	Hispanic <sup>1</sup>	Non-Hispanic
Female		`	Numbers in	thousands <sup>2</sup>		
All ages	115,244	98,412	14,005	2,829	7,290	108,121
Under 15 years	24,856	20,327	3,787	744	2,283	22,740
15-24 years	20,634	17,217	2,886	532	1,538	19,348
25-44 years	32,171	27,415	3,814	943	2,043	29,869
45-64 years	23,114	20,357	2,305	452	1.024	22,204
65 years and over	14,470	13,098	1,213	158	403	13,958
Male						
All ages	107,429	92,640	12,103	2,687	7,238	100,386
Under 15 years	25,976	21,366	3,840	770	2,362	23,785
15-24 years	20,076	17,012	2,544	520	1.636	18.680
25-44 years	30,487	26,558	3.057	873	2.004	28.212
45-64 years	20,849	18,637	1,838	375	931	20.029
65 years and over	10,042	9,067	826	150	303	9,682

<sup>1</sup>Based on the April 1, 1980 census.

<sup>2</sup>Figures may not add to totals due to rounding.

Note: Excludes Alaska and Hawaii.

# Population figures and rate computation

The population figures used in computing annual visit rates are presented in table II. The figures are based on an average of the July 1, 1980, and July 1, 1981, estimates of the civilian noninstitutionalized population of the United States provided by the U.S. Bureau of the Census. Because NAMCS includes data for only the conterminous United States, the original population estimates were modified to account for the exclusion of Alaska and Hawaii from the study. For this reason, the population estimates should not be considered official and are presented here solely to provide denominators for rate computations.

Estimates of numbers of visits and drug mentions in this report are for a 2-year period, but ratios and rates represent average annual estimates. For example, the average annual visit rates are calculated as follows. The numerator is obtained by dividing the estimated number of office visits for 1980-81 by 2 to obtain an average annual number of office visits. This number is then divided by the appropriate population figure to obtain an average annual visit rate. As previously discussed, estimates of reliability for average annual visit rates may be calculated from figures I and II.

## **Rounding of numbers**

Estimates presented in this report are rounded to the nearest thousand. For this reason detailed figures within tables do not always add to totals. Rates and percents are calculated on the basis of the original, unrounded figures and may not necessarily agree precisely with percents calculated from rounded data.

## Systematic bias

No formal attempt was undertaken to determine or measure systematic bias in the NAMCS data. But it should be noted that there are several factors affecting the data which indicate that these data underrepresent the total number of office visits. Some of these factors are briefly discussed below.

• Physicians who participated in NAMCS did a thorough and conscientious job in keeping the Patient Log; however, post survey interviews with participating physicians indicate that a small number of patient visits may have been accidentally omitted from the Patient Log; although this number is quite small, such omissions would result in an undercoverage of office visits.

The same post survey interviews indicate that the inclusion of patient visits that did not actually occur was infrequent and would have a negligible effect on survey estimates.

• As previously stated, the physician universe for the 1980–81 NAMCS included all nonfederal, office-based, patient-care physicians on the AMA and AOA masterfiles. The NAMCS was designed to provide statistically unbiased estimates of office visits to this designated population. Not included in the universe were physicians who were classified as federally employed; or hospital-based; or who were principally engaged in research, teaching, administration, or other nonpatient care activity. Consequently, ambulatory patient visits to these physicians in an office setting would not be included in NAMCS estimates. In an attempt to measure the number of office visits to physicians not in the NAMCS universe, a NAMCS

Complement Survey was conducted in 1980. This study involved a sample of approximately 2,000 physicians selected from among the 230,000 physicians in the AMA and AOA masterfiles who were not eligible (in scope) for the 1980 NAMCS. Details of the Complement Survey methodology and results are forthcoming. Preliminary results indicate that about 17 percent of the Complement Survey physicians saw some ambulatory patients in an office setting and that an estimated 69 million office visits were made to these physicians in 1980.

# Appendix II Definitions of certain terms used in the report

## Terms relating to the survey

Office—Premises identified by physicians as locations for their ambulatory practices. The responsibility over time for patient care and professional services rendered there generally resides with the individual physician rather than with any institution.

Ambulatory patient—An individual seeking personal health services who is neither bedridden nor currently admitted to any health care institution on the premises.

Physician-Classified as either:

- In scope—All duly licensed doctors of medicine or doctors of osteopathy currently in practice who spend some time caring for ambulatory patients at an office location.
- Out of scope—Those physicians who treat patients only indirectly, including physicians in the specialties of anesthesiology, pathology, forensic pathology, radiology, therapeutic radiology, and diagnostic radiology, and the following physicians:
  - Physicians who are federally employed, including those physicians in military service.
  - Physicians who treat patients only in an institutional setting, for example, patients in nursing homes and hospitals.
  - Physicians employed full time in industry or by an institution and having no private practice, for example, physicians who work for the Veterans' Administration or the Ford Motor Company.
  - Physicians who spend no time seeing ambulatory patients, for example, physicians who only teach, are engaged in research, or are retired.

Patients-Classified as either:

- In scope—All patients seen by the physician or a staff member in the office of the physician.
- Out of scope—Patients seen by the physician in a hospital, nursing home, or other extended care institution, or in the patient's home. (Note: If the physician has a private office, meeting the definition of "office," located in a hospital, the ambulatory patients seen there are considered in scope.) The following types of patients are considered out of scope:
  - Patients seen by the physician in an institution, including outpatient clinics of hospitals, for whom the institution has primary responsibility over time.

- Patients who contact and receive advice from the physician via telephone.
- Patients who come to the office only to leave a specimen, to pick up insurance forms, or to pay a bill.
- Patients who come to the office only to pick up medications previously prescribed by the physician.

*Visit*—A direct, personal exchange between an ambulatory patient and a physician or a staff member for the purpose of seeking care and rendering health services.

*Physician specialty*—Principal specialty, including general practice, as designated by the physician at the time of the survey. Those physicians for whom a specialty was not obtained were assigned the principal specialty recorded in the physician master files maintained by the American Medical Association or the American Osteopathic Association.

*Region of practice location*—The four geographic regions, excluding Alaska and Hawaii, that correspond to those used by the U.S. Bureau of the Census:

Region	States included
Northeast	Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont
North Central	Illinois, Indiana, Iowa, Kansas, Michi- gan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin
South	Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Ken- tucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Caro- lina, Tennessee, Texas, Virginia, and West Virgina
West	Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Ore- gon, Utah, Washington, and Wyoming

Metropolitan status of practice location—A physician's practice is classified by its location in a metropolitan or nonmetropolitan area. Metropolitan areas are standard metropolitan statistical areas (SMSA's) as defined by the U.S. Office of Management and Budget. The definition of an individual SMSA involves two considerations: first, a city or cities of specified population that constitute the central city and identify the county in which it is located as the central county; second, economic and social relationships with "contiguous" counties that are metropolitan in character so that the periphery of the specific metropolitan area may be determined. SMSA's may cross State lines. In New England, SMSA's consist of cities and towns rather than counties.

## Terms relating to the Patient Record Form

Age—The age calculated from date of birth was the age at last birthday on the date of visit.

*Race*—White, Black, Asian or Pacific Islander, or American Indian or Alaskan Native. Physicians were instructed to mark the category they judged to be the most appropriate for each patient based on observation or prior knowledge. The following definitions were provided to the physician:

- White—A person having origins in any of the original peoples of Europe, North Africa, or the Middle East.
- *Black*—A person having origins in any of the black racial groups of Africa.
- Asian or Pacific Islander—A person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands, including, for example, China, India, Japan, Korea, the Philippine Islands, and Samoa.
- American Indian or Alaskan Native—A person having origins in any of the original peoples of North America and who maintains cultural identification through tribal affiliation or community recognition.

*Ethnicity*—Category judged by the physician to be the most appropriate. The following definitions were provided:

- *Hispanic origin*—A person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.
- Not Hispanic—Any person not of Hispanic origin.

Patient's complaint(s), symptom(s), or other reason(s) for this visit (in patient's own words)—The patient's principal problem, complaint, symptom, or other reason for this visit as expressed by the patient. Physicians were instructed to record key words or phrases verbatim to the extent possible, listing that problem first which, in the physician's judgment, was most responsible for the patient's visit.

*Major reason for this visit*—The one major reason (selected from the following list) for the patient's visit as judged by the physician:

- Acute problem—A visit primarily for a condition or illness having a relatively sudden or recent onset (within 3 months of the visit).
- Chronic problem, routine—A visit primarily to receive regular care or examination for a preexisting chronic condition or illness (onset of condition was 3 months or more before the visit).
- Chronic problem, flareup—A visit primarily to receive care for a sudden exacerbation of a preexisting chronic condition or illness.
- Postsurgery or postinjury—A visit primarily for followup care of injuries or for care required following surgery, for example, removal of sutures or cast.

• Nonillness care (routine prenatal, general exam, wellbaby)—General health maintenance examinations and routine periodic examinations of presumably healthy persons, both children and adults, including prenatal and postnatal care, annual physicals, well-child examinations, and insurance examinations.

*Diagnostic services this visit*—Physicians were instructed to check any of the following services that were ordered or provided during the current visit:

- Limited history and/or examination—History or physical examination limited to a specific body site or system or concerned primarily with the patient's chief complaint, for example, pelvic examination or eye examination.
- General history and/or examination—History or physical examination of a comprehensive nature, including all or most body systems.
- Pap test-Papanicolaou test.
- Clinical lab test—One or more laboratory procedures or tests, including examination of blood, urine, sputum, smears, exudates, transudates, feces, and gastric content, and including chemistry, serology, bacteriology, and pregnancy test; excludes Pap test.
- X-ray—Any single or multiple X-ray examination for diagnostic or screening purposes; excludes radiation therapy.
- Blood pressure check.
- *EKG*—Electrocardiogram.
- Vision test-Visual acuity test.
- Endoscopy—Examination of the interior of any body cavity except ear, nose, and throat by means of an endoscope.
- *Mental status exam*—Any formal, clinical evaluation designed to assess the mental or emotional status of the patient.
- Other—All other diagnostic services ordered or provided that are not included in the preceding categories.

*Principal diagnosis*—The physician's diagnosis of the patient's principal problem, complaint, or symptom. In the event of multiple diagnoses, the physician was instructed to list them in order of decreasing importance. The term "principal" refers to the first-listed diagnosis. The diagnosis represents the physician's best judgment at the time of the visit and may be tentative, provisional, or definitive.

Other significant current diagnoses—The diagnosis of any other condition known to exist for the patient at the time of the visit. Other diagnoses may or may not be related to the patient's reason for visit.

Have you seen patient before?—"Seen before" means provided care for at any time in the past. Item 10b refers to the patient's current episode of illness.

Medication therapy this visit—The physician was instructed to list, using brand or generic names, all medications, including drugs, vitamins, hormones, ointments, and suppositories ordered, injected, administered, or provided this visit including prescription and nonprescription drugs, vaccinations, immunization, and desensitization agents. Also included are drugs and medications ordered or provided prior to the visit that the physician instructed or expected the patient to continue taking. Medications for the principal diagnosis are listed in item 11a; all other drugs are listed in item 11b.

*Nonmedication therapy*—Physicians were instructed to check any of the following services that wer ordered or provided during the current visit:

- *Physiotherapy*—Any form of physical therapy ordered or provided, including any treatment using heat, light, sound, or physical pressure or movement; for example, ultrasonic, ultraviolet, infrared, whirlpool, diathermy, cold, and manipulative therapy.
- Office surgery—Any surgical procedure performed in the office this visit, including suture of wounds, reduction of fractures, application or removal of casts, incision and draining of abscesses, application of supportive materials for fractures and sprains, irrigations, aspirations, dilations, and excisions.
- *Family planning*—Services, counseling, or advice that might enable patients to determine the number and spacing of their children, including both contraception and infertility services.
- Psychotherapy or therapeutic listening—All treatments designed to produce a mental or emotional response through suggestion, persuasion, reeducation, reassurance, or support, including psychological counseling, hypnosis, psychoanalysis, and transactional therapy.
- *Diet counseling*—Instructions, recommendations, or advice regarding diet or dietary habits.
- Family or social counseling—Advice regarding problems of family relationships, including marital or parent-child problems, or social problems, including economic, educational, occupational, legal, or social adjustment difficulties.
- Medical counseling—Instructions and recommendations regarding any health problem, including advice or counsel about a change of habit or behavior. Physicians were instructed to check this category only if medical counseling was a significant part of the treatment. Family planning, diet counseling, and family or social counseling are excluded.
- Other—Treatments or nonmedication therapies ordered or provided that are not listed or included in the preceding categories.

Was patient referred for this visit by another physician?— Referrals are any visits that are made at the advice or direction of a physician other than the one being visited. The interest is in referrals for the current visit and not in referrals for any prior visit.

*Disposition this visit*—Eight categories are provided to describe the physician's disposition of the case. The physician was instructed to check as many of the categories as apply:

- *No followup planned*—No return visit or telephone contact was scheduled for the patient's problem.
- *Return at specified time*—Patient was told to schedule an appointment or was instructed to return at a particular time.
- *Return if needed, P.R.N.*—No future appointment was made, but the patient was instructed to make an appointment with the physician if the patient considered it necessary.
- *Telephone followup planned*—Patient was instructed to telephone the physician on a particular day to report either on progress, or if the need arose.
- Referred to other physician—Patient was instructed to consult or seek care from another physician. The patient may or may not return to this physician at a later date.
- Returned to referring physician—Patient was instructed to consult again with the referring physician.
- Admit to hospital—Patient was instructed that further care or treatment would be provided in a hospital. No further office visits were expected prior to hospital admission.
- *Other*—Any other disposition of the case not included in the preceding categories.

Duration of this visit—Time the physician spent with the patient, not including time the patient spent waiting to see the physician, time the patient spent receiving care from someone other than the physician without the presence of the physician, and time the physician spent in reviewing such things as records and test results. If the patient was provided care by a member of the physician's staff but did not see the physician during the visit, the duration of visit was recorded as 0 minutes.

# Appendix III Survey instruments



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE PUBLIC HEALTH SERVICE OFFICE OF HEALTH RESEARCH, STATISTICS AND TECHNOLOGY HYATTSVILLE, MARYLAND 20782

NATIONAL AMBULATORY MEDICAL CARE SURVEY

**Endorsing Organizations** 

American Academy of Dermatology

American Academy of Family Physicians

American Academy of Neurology

American Academy of Orthopaedic Surgeons

American Academy of Pediatrics

American Association of Neurological Surgeons

American College of Emergency Physicians

American College of Obstetricians and Gynecologists

American College of Physicians

American College of Preventive Medicine

American Osteopathic Association

American Society of Colon and Rectal Surgeons

American Psychiatric Association

American Society of Internal Medicine

American Society of Plastic and Reconstructive Surgeons, Inc.

American Urological Association

Association of American Medical Colleges

National Medical Association The purpose of this survey is to collect information about ambulatory patients, their problems, and the resources used for their care. The resulting published statistics will below your profession plan for more

The National Center for Health Statistics, as part

a National Ambulatory Medical Care Survey (NAMCS).

of its continuing program to provide information on

the health status of the American people, is conducting

statistics will help your profession plan for more effective health services, determine health manpower requirements, and improve medical education.

Since practicing physicians are the only reliable source of this information, we need your assistance in the NAMCS. As one of the physicians selected in our national sample, your participation is essential to the success of the survey. Of course, all information that you provide is held in strict confidence.

Many organizations and leaders in the medical profession have expressed their support for this survey, including those shown to the left. In particular, your own specialty society has reviewed the NAMCS program and supports this effort (see enclosure). They join me in urging your cooperation in this important research.

Within a few days, a survey representative will telephone you for an appointment to discuss the details of your participation. We greatly appreciate your cooperation.

Sincerely yours,

Dorothy P. Rice Director

Enclosure



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BEGIN DECK 3

CONFIDENTIAL* NORC-4284		Form Approved DMB No. 68R1498
FOR OFFICE USE ONLY:	NATIONAL AMBULATORY MEDICAL CARE SURVEY INDUCTION INTERVIEW	(Thurs TD Number)
(BATCH NO.)	BEFORE STARTING INTERVIEW 1. ENTER PHYSICIAN I.D. NUMBER IN BOX TO RIGHT.	1-4/
(LOG NO.) 7-10/	2. ENTER DATES OF ASSIGNED REPORTING WEEK Q. 2, P. 2.	IN TIME AM BEGAN: PM

Doctor, before I begin, let me take a minute to give you a little background about this survey.

Although ambulatory medical care accounts for nearly 90 percent of all medical care received in the United States, there is no systematic information about the characteristics and problems of people who consult physicians in their offices. This kind of information has been badly needed by medical educators and others concerned with the medical manpower situation.

In response to increasing demands for this kind of information, the National Center for Health Statistics, in close consultation with representatives of the medical profession, has developed the National Ambulatory Medical Care Survey.

Your own task in the survey is simple, carefully designed, and should not take much of your time. Essentially, it consists of your participation during a specified 7-day period. During this period, you simply check off a minimal amount of information concerning patients that you see.

Now, before we get into the actual procedures, I have a few questions to ask about your practice. The answers you give me will be used only for classification and \* analysis, and of course <u>all</u> information you provide is held in strict confidence.

1. First, you are a

\_\_\_\_\_

(ENTER SPECIALTY FROM CODE ON FACE SHEET LABEL.) Is that right? Yes .....X No ....Y A. IF NO: What is your specialty (including general practice)?

(Name of Specialty)

The National Ambulatory Medical Care Survey is authorized by Congress in Public Law 93-353, section 308. It is a voluntary study and there are no penalties for refusing to answer any question. All information collected is confidential and will be used only to prepare statistical summaries. No information which will identify an individual or a physician's practice will be released. 2. Now, doctor, this study will be concerned with the <u>ambulatory</u> patients you will see in your office during the week of (READ REPORTING DATES ENTERED BELOW).

	(that's a				(that's a
1	Monday)	through		<u>l</u>	Sunday)
month date			month	date	

Are you likely to see any ambulatory patients in your office during that week?

Yes . . . . . . (GO TO Q. 3) . . X No . . . . . . (ASK A) . . . . Y

55

A. IF NO: Why is that? RECORD VERBATIM, THEN READ PARAGRAPH BELOW

Since it's very important, doctor, that we include any ambulatory patients that you <u>do</u> happen to see in your office during that week, I'd like to leave these forms with you anyway--just in case your plans change. I'll plan to check back with your office just before (STARTING DATE) to make sure, and I can explain them in detail then, if necessary.

GIVE DOCTOR THE A PATIENT RECORD FORMS AND GO TO Q. 9, P. 6.

3. A. At what office location will you be seeing ambulatory patients during that 7-day period? RECORD UNDER A BELOW AND THEN CODE B.

\_\_\_\_\_

Β.	FOR EACH OFFICE LOCATIO	<u>N ENTERED</u>	IN A,	CODE	YES C	DR NO	TO "IN	SCOPE .	
	IN SCOPE (	OUT OF SCOPE (No)							
	Private offices Free-standing clinics (non-hospital based) Groups, partnerships Kaiser, HIP, Mayo Clinic Neighborhood Health Centers Privately operated clinics (except family planning)		Hospital emergency rooms Hospital outpatient departments College or university infirmaries Industrial outpatient facilities Family planning clinics Government-operated clinics (VD, maternal & child health, et						s ries es , etc.)
	IN CASE OF DOUBT, ASK:	Is that	(clini	c/faci	llity/	/insti	tution)	hospital	based?
		Is that operated	(clini ?	c/faci	lity/	/insti	tution)	governme	nt

C. Is that <u>all</u> of the office locations at which you expect to see ambulatory patients during that week?

Yes . . . . . . . . . . . X No . . . . . . . . . . . . . . . . . Y

IF NO: OBTAIN ADDITIONAL OFFICE LOCATION(S), ENTER IN "A" BELOW, AND REPEAT.

	A. Office Location		B. In Scope?		
	·		Yes	No	
(1)			1	0	
(2)			1	0	
(3)			1	0	
(4)		······································	l	0	

TOTAL IN-SCOPE LOCATIONS:

14/

IF ALL LOCATIONS ARE OUT OF SCOPE, THANK THE DOCTOR AND LEAVE.

-3-

4. A. During that week (REPEAT DATES), how many ambulatory patients do you expect to see in your office practice? (DO NOT COUNT PATIENTS SEEN AT [OUT-OF-SCOPE LOCATIONS] CODED IN 3-B.)

ENTER TOTAL UNDER "A" BELOW AND CIRCLE NUMBER CATEGORY ON APPROPRIATE LINE.

B. And during those seven days (REPEAT DATES IF NECESSARY), on how many <u>days</u> do you expect to see any ambulatory patients? COUNT EACH DAY IN WHICH DOCTOR EXPECTS TO SEE ANY PATIENTS AT AN IN-SCOPE OFFICE LOCATION.

CIRCLE NUMBER OF DAYS IN APPROPRIATE CCLUMN UNDER "B" BELOW.

DETERMINE PROPER PATIENT LOG FORM FROM CHART BELOW. READ ACROSS ON "TOTAL PATIENTS" LINE UNDER "A" AND CIRCLE LETTER IN APPROPRIATE "DAYS" COLUMN UNDER "B."

THIS LETTER TELLS YOU WHICH OF THE FOUR PATIENT LOG FORMS (A, B, C, D) SHOULD BE USED BY THIS DOCTOR.

				_				_		_
LOG FORM DESCRIPTION		A Expected patients survey	i total during week.	B. Total <u>days</u> in prac during week.			ctic	e		
APatient Record is to be		ENTER TO	TAL FROM 4-A.				18/			
patients listed on Log.	15-17/			1	2	3	4	5	6	7
		1- 12	PATIENTS	Α	A	A	A	A	A	A
		13- 25	- 11	В	Ā	<u>A</u>	<u>A</u>	A	<u>A</u>	<u>A</u>
BPatient Record is to be		26- 39		С	В	Α	A	A	A	A
<u>SECOND</u> patient listed		40- 52	H	C	B	В	A	A	A	A
on Log.		53- 65	11	D	С	B	B	A	A	
		66- 79		D	С	В	В	В	A	A
CPatient Record is to be		80- 92	FT	D	D	С	B	B	В	В
completed for every		93-105	**	D	D	С	В	B	В	В
THIRD patient listed		106-118		D	D	С	С	В	В	B
on Log.		119-131	11	D	D	С	С	В	В	В
		132-145	11	D	D	D	C	С	В	В
*DPatient Record is to be		146-158		D	D	D	С	С	В	В
completed for every		159-171	11	D	D	D	С	С	С	С
FIFTH patient listed		172-184	11	D	D	D	С	С	С	С
on 105.		185-197	LI .	D	D	D	Ð	D	D	D
		198-210	11	D	D	D	D	D	D	D
		211+	11	D	D	D	D	D	D	D

In the rare instance the physician will see more than 500 patients during his assigned reporting week, give him two D Patient Log Folios and instruct him to complete a patient record form for only every tenth patient. Then you are to draw an X through the Patient Record on every other page of the two folio pads, starting with Page 1 of the pad. The physician then completes the Patient Log on every page, but completes the Patient Record on every second page.

5. FIND LOG FOLIO WITH APPROPRIATE LETTER AND CIRCLE LETTER, ENTER FIRST FOUR NUMBERS OF THE FORM AND NUMBER OF LINES STAMPED "BEGIN ON NEXT LINE" FOR THE B-C-D LOG FORMS (if no lines are stamped, enter "0") BELOW.

	FOLIO		No. Lines Stamped "BEGIN	FOR OFFICE USE ONLY Number patient record	
Letter	Numb	per	ON NEXT LINE"	forms completed.	19-23/ 24-26/
A					
В					
С					
D					

6. HAND DOCTOR HIS FOLIO AND EXPLAIN HOW FORMS ARE TO BE FILLED OUT. SHOW DOCTOR INSTRUCTIONS ON THE POCKET OF FOLIO, ITEMS 8 AND 11 ON CARDS IN POCKET OF FOLIO AND ITEM DEFINITIONS ON THE BACK OF FOLIO, TO WHICH HE CAN REFER AFTER YOU LEAVE.

EMPHASIZE THAT EVERY PATIENT VISIT EXCEPT ADMINISTRATIVE PURPOSE ONLY IS TO BE RECORDED ON THE LOG FOR ENTIRE REPORTING PERIOD. FOR EXAMPLE, IF A MEDICAL ASSISTANT GAVE THE PATIENT AN INOCULATION, OR A TECHNICIAN ADMINISTERED AN ELECTROCARDIOGRAM AND THE PATIENT DID NOT SEE THE DOCTOR, THIS VISIT MUST STILL BE LISTED ON THE LOG.

RECORD VERBATIM BELOW ANY CONCERN, PROBLEMS OR QUESTIONS THE DOCTOR RAISES.

7. IF DOCTOR EXPECTS TO SEE AMBULATORY PATIENTS AT MORE THAN ONE IN-SCOPE LOCATION DURING ASSIGNED WEEK, TELL HIM YOU WILL DELIVER THE FORMS TO THE OTHER LOCATION(S). ENTER THE FORM LETTER AND NUMBER(S) AND NUMBER OF LINES STAMPED "BEGIN ON NEXT LINE" FOR THE B-C-D LOG FOR THOSE LOCATIONS BELOW, BEFORE DELIVERING FORM(S).

Location	Letter	FOLIO			 No. Lines Stamped "BEGIN ON NEXT LINE"	FOR OFFICE USE ONLY: Number patient record forms completed	
							27-31/ 32-34/
							35 <b>-</b> 39/ 40-42/
							43-47/ 48-50/

#### DECK 3

-6-

8. During the survey week (REPEAT EXACT DATES), will anyone be available to help you in filling out these records (at each IN-SCOPE location)?

> Yes . . . (ASK A) . . . 1 51/ No . . . . . . . . . . . . . 2

A. IF YES: Who would that be?

RECORD NAME, POSITION AND LOCATION.

NAME POSITION LOCATION PERSONALLY BRIEF EACH PERSON LISTED ABOVE. EMPHASIZE THAT EVERY PATIENT VISIT DURING THE ENTIRE WEEK IS TO BE RECORDED ON THE LOG EXCEPT "ADMINISTRATIVE PURPOSE ONLY." 9. Do you have a solo practice, or are you associated with other physicians in a partnership, in a group practice, or in some other way? 52/ Solo. . . . . (GO TO Q. 10) . . 1 Partnership . . (ASK A-C) . . . 2 Group . . . . (ASK A-C) . . . 3 <--- Other (SPECIFY AND ASK A-C) . . 4 IF PARTNERSHIP, GROUP, OR OTHER: Yes . . (ASK [1]) . . . 1 A. Is this a prepaid group practice? 53/ No . . . . . . . . . . . . 2 [1] IF YES TO A: What per cent of patients are \_\_\_\_\_ per cent prepaid? 54-56/ B. How many other physicians are 57-59/ associated with you? NUMBER OF PHYSICIANS: C. What are the specialties of the other physicians associated with you? (How many of these are there?) Specialty Number of Physicians (1) \_\_\_\_\_ (2) \_\_\_\_\_ (3) \_\_\_\_\_ (4) \_\_\_\_\_

(5)

D. <u>CIRCLE ONE</u>:

60/

- 10. Now I have just one more question about your practice. (NOTE: IF DOCTOR PRACTICES IN LARGE GROUP, THE FOLLOWING INFORMATION CAN BE OBTAINED FROM SOMEONE ELSE.)
  - A. What is the total number of full-time (35 hours or more per week) employees of your (partnership/ group) practice? Include persons regularly employed who are now on vacation, temporarity ill, etc. Do not include other physicians. RECORD ON BOTTOM LINE OF COLUMN A BELOW.
     (1) How many of these full-time employees are a . . . (READ CATEGORIES BELOW AS NECESSARY AND RECORD NUMBER OF EACH IN COLUMN A.)
  - B. And what is the total number of part-time (less than 35 hours per week) employees of your (partnership/group) practice? Again, include persons regularly employed who are now on vacation, ill, etc. Do not include other physicians. RECORD ON BOTTOM LINE OF COLUMN B BELOW.
    (1) How many of these part-time employees are a . . . (READ CATEGORIES BELOW AS NECESSARY AND RECORD NUMBER OF EACH IN COLUMN B.)

	Employees	A. <u>¶Full-time</u> (35 or more hours/week)	B. <u>Part-time</u> (Less than 35 hours/week)	
(1)	Registered Nurse	11-13/	35-	37/
(2)	Licensed Practical Nurse	14-16/	38-	40/
(3)	Nursing Aide	17-19/	41-	43/
(4)	Physician Assistant	20-22/	44-	46/
(5)	Technician	23-25/	47-	49/
(6)	Secretary or Receptionist	26-28/	50-	52/
(7)	Other (SPECIFY)	29-31/	53-	55/
	TOTAL:	32-34/	TOTAL: 56-	58/

<sup>T</sup>Physician Assistant must be a graduate of an accredited training program for Physician Assistants (Physician Extenders, Medex, etc.) or certified by the National Board of Medical Examiners through the Certification Exam for Assistant to the Primary Care Physician.

BEFORE YOU LEAVE, AGAIN STRESS THAT EACH AND EVERY AMBULATORY PATIENT SEEN BY THE DOCTOR OR HIS STAFF DURING THE 7-DAY PERIOD AT ALL IN-SCOPE OFFICE LOCATIONS (REPEAT THEM) IS TO BE INCLUDED IN THE SURVEY, THAT EACH PATIENT IS TO BE RECORDED ON THE LOG, AND ONLY THE APPROPRIATE NUMBER OF PATIENT RECORDS COMPLETED.

Thank you for your time, Dr.\_\_\_\_\_. If you have any (more) questions, please feel free to call me. My phone number is written in the folio. I'll call you on Monday morning of your survey week just to remind you.





# Appendix IV **American Hospital Formulary** Service classification system and therapeutic category codes

#### AMERICAN HOSPITAL FORMULARY SERVICE CLASSIFICATION SYSTEM AND THERAPEUTIC CATEGORY CODES (AHFS#)

(Classifications in parentheses are provisional but may be used in DPIF)

AMERICAN HOSPITAL SERVICE CLASSIFICATION SYSTEM

04:00 ANTIHISTAMINE DRUGS
08:00 ANTI-INFECTIVE AGENTS
08:04 Amebacides
08:08 Antheimintics
08:12 Antibiotics
08:12.02 Aminoglycosides
08:12.04 Antifungal Antibiotics
08:12.06 Cephalosporins
08:12.08 Chloramphenicol
08:12.12 Erythromycins
08:12.16 Penicillins
08:12.24 Tetracyclines
08:12.24 Other Antibiotics
US:16 Antituderculosis Agents
08:18 Antivirais
08:20 Fillsmouldes
08:24 Sulfones
08:28 Trenonemicides
08:32 Trichomonacides
08:36 Urinary Germicides
08:40 Other Anti-Infective
10:00 ANTINEOPLASTIC AGENTS
12:00 AUTONOMIC DRUGS
12:04 Parasympathomimetic Agents
12:08 Parasympatholytic Agents
12:12 Sympathomimetic Agents
12:16 Sympatholytic Agents
12:20 Skeletal Muscle Relaxants
16:00 BLOOD DERIVATIVES
20:00 BLOOD FORMATION AND COAGU-
20:04 Antianemia Drugs
20:04.04 Iron Preparations
20:04.08 Liver and Stomach
Preparations
20:12 Coagulants and Anticoagulants
20:12.04 Anticoagulants
20:12.08 Antiheparin Agents
20:12.12 Coaguiants
20:12.16 Hemostatics
20:40 Thrombolytic Agents
14.00 CARDIOVASCULAR DRUCS
24-00 CARDIOVAGCULAR DRUGG 24-04 Condigo Druge
24.06 Antilinemic Agents
24:00 Antipenie Agents
24:12 Vasodilating Agents
24:16 Sclerosing Agents
28:00 CENTRAL NERVOUS SYSTEM DRUGS
28:04 General Anesthetics
28:08 Analgesics and Antipyretics
28:10 Narcotic Antagonists
28:12 Anticonvulsants
28:16 Psychotherapeutic Agents
28:16.04 Antidepressants
28:16.08 Tranquilizers
28:16.12 Other Psychotherapeutic
Agents
28:20 Respiratory and Cerebral
Stimulants
20.24 Sedatives and hyphotics

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