VITAL & HEALTH STATISTICS

The National Ambulatory Medical Care Complement Survey:
United States, 1980

National Ambulatory Medical Care Complement Survey statistics on non-office-based physicians who see patients in the private office setting are presented. Data on visits to these physicians are compared and contrasted with National Ambulatory Medical Care Survey data on office visits.to office-based physicians. The summary statistics used describe patient demographic characteristics, physician practice characteristics, patient medical information, and the clinical management of visits.

Contents

Appendixes

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

Figure suppressed to comply with confidentiality requirements

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The National Ambulatory Medical Care Complement Survey

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Section I
Background and purpose

Since 1973, the National Center for Health Statistics (NCHS) has conducted the National Ambulatory Medical Care Survey (NAMCS) annually to assess the national volume and characteristics of patient visits for medical care services provided by office-based physicians in the office setting. The NAMCS has been an invaluable and unique source of information on the demographic characteristics of patients visiting these physicians and on the presenting problems encountered, the diagnostic conclusions reached, and the treatment regimens ordered or provided during these visits. In 1980, NCHS conducted the National Ambulatory Medical Care Complement Survey to supplement the information collected through NAMCS. The objective of the Complement Survey was to measure the volume and characteristics of ambulatory patient office visits made to physicians not included in the NAMCS physician universe.

The NAMCS universe in 1980 and prior years included physicians on the American Medical Association (AMA) and American Osteopathic Association (AOA) masterfiles who were classified as nonfederally employed, principally engaged in office-based practice, and not specializing in anesthesiology, pathology, or radiology. In this report these physicians are referred to as "office-based" physicians. The employment, principal activity, and specialty classifications used to define this group are based on data obtained by the AMA and AOA through periodic mail surveys. In the AMA and AOA masterfiles used for the 1980 NAMCS, approximately 210,000 physicians were eligible to participate in NAMCS. These masterfiles also included approximately 230,000 physicians who did not meet the criteria for inclusion in NAMCS. These were physicians whose principal activity was classified as teaching, research, administration, or hospital-based patient care; physicians who were inactive (including those who were retired); physicians who were unclassified as to principal activity because information was lacking; physicians who were federally employed; and physicians who specialized in anesthesiology, pathology, or radiology. These physicians were defined as out of scope for NAMCS and are referred to as "non-office-based" physicians

in this report. The non-office-based physicians are of interest because some of these physicians render office-based ambulatory patient care, that is, they provide health care services that were otherwise in scope for NAMCS.

There are several circumstances under which this could happen. First, in the time intervening between the most recent AMA or AOA data collection efforts and the selection of the NAMCS sample of physicians, some physicians may have changed their principal activity to office-based patient care from some other activity. Second, some physicians may have been unclassified because of a lack of information, yet were in fact principally engaged in office-based patient care. Third, some physicians appropriately classified by the AMA or AOA as not principally engaged in office-based patient care may see ambulatory patients in an office, although that is not their principal professional activity. Because the AMA and AOA classifications are based on the activity that occupies the largest proportion of each physician's professional time, a substantial proportion of a particular physician's professional time could be spent in providing office-based patient care, yet the physician would be classified in some other principal activity category.

Although the NAMCS physician universe of office-based physicians included the bulk of office-based patient care, it has not been possible to estimate the volume of ambulatory patient office visits to other physicians. How office visits to office-based physicians differed from office visits to other physicians also was not known. The Complement Survey was designed to fill the first information gap by providing a national estimate of visits by ambulatory patients in the private office setting of physicians not in the NAMCS universe. The Complement Survey also collected demographic, diagnostic, and therapeutic information on the patients making these visits. This information can be examined to determine if the visits to the non-office-based physicians included in the Complement Survey differed from those to the office-based physicians included in NAMCS. The Complement Survey data also may be used by NCHS management to assess the possibility of redefining the NAMCS physician universe.

Section II
Data collection

The procedures used to conduct the Complement Survey involved three stages of data collection. In the first stage, a sample of all non-office-based physicians was screened by telephone to elicit information about the provision of office-based care to ambulatory patients. In the second stage, those physicians who appeared to provide health care services in a private office setting were visited and interviewed using the same induction interview procedures used for the National Ambulatory Medical Care Survey (NAMCS). This visit was designed to acquaint the physician with the purpose of the survey and the procedures to be used. It also served as a final screening in determining physician eligibility. In the third stage, those physicians who were judged to be in scope for the Complement Survey through the induction interview were asked to complete Patient Log and Patient Record forms for a randomly assigned week. These forms, the same as those used for NAMCS, were designed to obtain selected information about individual patient visits sampled from among all visits occurring during the physician's survey participation week.

This brief overview of the Complement Survey encompasses numerous detailed procedures that are summarized below. A complete presentation of the technical procedures, data collection instruments, definitions, and drug classification system that were used can be found in appendixes I–IV.

The Complement Survey used a multistage probability design very similar to that of NAMCS. The first stage of sample selection involved a probability sample of 87 primary sampling units (PSU's), the same as were used in the 1980 NAMCS design. In the second stage, the physicians who were located within each PSU (according to the American Medical Association and American Osteopathic Association masterfiles), and who were defined by the National Center for Health Statistics (NCHS) as non-office-based, were stratified by NCHS into 11 professional groups on the basis of the masterfile information. The groups were federally employed physicians; anesthesiologists, pathologists, and radiologists; physicians principally engaged in teaching, research, administration, or hospital-based patient care; and physicians who were inactive, retired, or unclassified as to principal activity. Any physician who qualified for two or three of the professional groups was assigned to the first-listed group for which he or she qualified. Then a systematic random sample of approximately 5,000 physicians was selected such that the overall probability of selection was approximately equal for all physicians. (See appendix I for a more detailed description of the sampling method used.) These physicians were screened by telephone in random sets of approximately 500 until about 400 physicians eligible for participation in the Complement Survey were identified.

This telephone screening interview, the first stage of data collection, consisted of a series of closed-ended questions that attempted to identify only those physicians who saw ambulatory patients in the private office setting. On the questionnaire, the physicians were asked first to select their major professional activity from a precoded list (patient care, research, teaching, administration, or something else); the questions became progressively more restrictive in focus. The purpose was to establish whether the physician provided any direct patient care, whether the patients seen were private patients who were ambulatory, and whether the locations at which the patients were seen fit the NAMCS and Complement Survey definition of a private office. Locations defined as an office setting, and, therefore, in scope for both the Complement Survey and NAMCS, were private offices, non-hospital-based freestanding clinics, groups or partnerships, Kaiser and Mayo clinics, neighborhood health centers, and non-family-planning privately operated clinics. Locations considered out of scope for both the Complement Survey and NAMCS included hospital emergency departments, hospital outpatient departments, college or university infirmaries, industrial outpatient facilities, family planning clinics, and government-operated clinics. The interviewer also was to record survey administrative data. The Telephone Screening Assignment questionnaire is reproduced in appendix II.

Physicians who appeared to be in scope for the Complement Survey on the basis of the telephone screening interview were later visited by a field representative for a personal induction interview. During this interview, the second stage of data collection, the field representative made a final determination of the physician's eligibility to participate in the survey, obtained information on basic practice characteristics (for example, type of practice and expected number of office visits), enlisted the physician's cooperation, delivered survey materials with verbal and printed instructions, and assigned a random predetermined Monday-Sunday reporting period. The Induction Interview form used for Complement Survey physicians was identical to that used for NAMCS physicians and is reproduced in appendix II.

For the Complement Survey, attempts were made to telephone four groups of 502 physicians, or a total of 2,008 physicians for the screening interview. Of these, 21 refused to be interviewed, leaving a total of 1,987 physicians. Of this number, 18 were deceased, 148 were retired, 32 had moved

out of the United States, 232 could not be located, and 48 could not be screened for other reasons. On the basis of the screening interview, 1,118 physicians were found not to provide office-based patient care and were also ruled out of scope for the Complement Survey. This left 391 physicians who appeared to be in scope for the Complement Survey, based on the telephone screening interview. (See table 1 in section IV.) An additional 63 physicians were ruled out of scope through the personal induction interview, resulting in a final sample of 328 physicians in scope for the Complement Survey.

Physician weights were computed to inflate the physician sample data to national estimates. The weights accounted for the probabilities of selection for each physician, and included an adjustment for nonresponse. They also included a ratio adjustment to insure that the national estimates for five major professional groups—Federal; hospital-based; teaching, research, and administration; inactive, retired, and unclassified; and anesthesiologists, pathologists, and radiologists—would be in accord with national totals for those five groups computed using the 1979 AMA and AOA masterfiles. A brief analysis of these weighted physician estimates is the subject of section IV.

The final stage of sampling involved the selection of patient visits within the annual practices of the sample physicians. This was accomplished using exactly the same technique as was used for NAMCS. First, each in-scope sample physician was randomly assigned to a 1-week data collection period during the survey year. Second, using the Patient Log to record a sequential listing of patients seen during the assigned week, each physician selected a systematic random sample of visits. The sampling rate for selecting visits varied from 100 percent for very small practices to 20 percent for very large ones. For each visit sampled, the physician completed a Patient Record form, the NAMCS data collection instrument for recording demographic, diagnostic, and therapeutic information. The Patient Record form is reproduced in appendix II.

Of the 328 physicians judged to be in scope for the Complement Survey, 283, or 86 percent, agreed to submit visit information. Of these, 38 saw no patients during their assigned week because of illness, vacation, attendance at a convention, or some other reason. The remaining 245 physicians completed Patient Record forms, yielding a total sample of 5,400 office visits.

Visit weights were computed to inflate the raw data to national estimates. The weights accounted for the probabilities of selecting a visit, adjusted for nonresponse. The final weighted estimates constitute the patient visit data summarized in section V.

All comparisons among physician estimates in section IV and among patient visit estimates in section V were tested for statistical significance using the Bonferroni test for multiple comparisons, a modification of the t-test. Unless otherwise stated, all statements regarding differences between or among statistics indicate that the test results showed a difference significant at the $p<.05$ level.

Section III
Highlights

From the Complement Survey, it is estimated that there were 226,000 non-office-based physicians in 1980. Of these, an estimated 38,000 (16.7 percent) saw some patients in an office setting, and so were eligible to participate in the Complement Survey. Of these eligible physicians, 37.0 percent were categorized in the hospital-based patient care professional group and 23.6 percent were in the group unclassified as to professional activity.

An estimated 68.6 million office visits to Complement Survey physicians occurred in 1980. This was 10.6 percent of all office visits to physicians. Two-thirds (67.8 percent) of the Complement Survey visits were to physicians with professional group classifications of hospital-based patient care or "unclassified." Compared with National Ambulatory Medical Care Survey (NAMCS) visits, Complement Survey visits included higher proportions of minority group members, new patients, and patients who had been referred by another physician.

Complement Survey visits also were more likely to be visits to non-solo practitioners and to practitioners located in metropolitan areas than were NAMCS visits. A larger proportion of Complement Survey patients than of NAMCS patients was returned to a referring physician, and a smaller proportion was instructed to return if needed. In addition, the average Complement Survey visit lasted 17.9 minutes, or 2.5 minutes longer than the average NAMCS visit.

In 35.7 million of the Complement Survey visits, the physician ordered or provided at least one prescription or non-prescription drug for the patient. This was only 52.0 percent of the visits, significantly less than the corresponding 63.1 percent of the NAMCS visits. During Complement Survey visits, an estimated 72.3 million drug mentions were made. This was an average of 1.05 drugs for each visit or 2.03 drugs for each visit involving at least one drug. The corresponding NAMCS averages were not significantly different.

Section IV
Physician data

Statistics on the characteristics of non-office-based physicians, as estimated from the Complement Survey, are presented in tables 1–6. Based on Complement Survey data, there were an estimated 226,000 non-office-based physicians in 1980. (See table 1.) An estimated 38,000, or 16.7 percent, saw patients in an office setting and thus were eligible to participate in the Complement Survey. Of the remaining 188,000, most (134,000, or 59.1 percent of all non-office-based physicians) were out of scope because they did not meet the Complement Survey criteria defining the provision of office care to patients. An estimated 55,000 were considered out of scope because they were deceased or retired, had moved out of the United States or could not be located, or because of some other reason.

The distribution of the in-scope and out-of-scope physician estimates according to professional group is displayed in table 2. For both categories, physicians whose principal activity was hospital-based patient care formed the largest group. Of the in-scope physicians, 37.0 percent (14,000) were hospital-based, as were 41.8 percent of the out-of-scope physicians. The next largest groups of in-scope physicians were unclassified physicians (9,000) and anesthesiologists and radiologists (4,000). (No pathologists were in scope.) Ranking the remaining activity groups revealed no other significant differences between groups.

The data in table 2 also demonstrate that the proportion of physicians who were eligible for the Complement Survey ranged

Table 1. Estimated number and percent distribution of non-office-based physicians and number of sample physicians, by final disposition: United States, 1980

| | Physicians | | |
| | Non-office-based | | Sample |
Final disposition	Number	Percent distribution	Number
All physicians	226,123	100.0	1,987
In scope	37,805	16.7	328
Out of scope	188,318	83.3	1,659
Deceased	1,991	0.9	18
Retired	18,033	8.0	148
Moved out of the United States	3,471	1.5	32
Cannot be located	25,795	11.4	232
Ruled out in interview	133,633	59.1	1,181
Other	5,395	2.4	48

Table 2. Estimated number and percent distribution of non-office-based physicians by scope, according to type of professional group: United States, 1980

| | Physicians | | | | | |
| | Total | | In scope | | Out of scope | |
Professional group	Number	Percent	Number	Percent	Number	Percent
All physicians	226,123	100.0	37,805	16.7	188,318	83.3
Federal	18,112	100.0	1,891	10.4	16,221	89.6
Hospital-based patient care	92,760	100.0	13,998	15.1	78,762	84.9
Teaching	6,391	100.0	1,985	31.1	4,406	68.9
Research	14,452	100.0	3,075	21.3	11,377	78.7
Administration	10,197	100.0	1,946	19.1	8,251	80.9
Anesthesiologists, pathologists, and radiologists[1]	28,597	100.0	4,387	15.3	24,210	84.7
Unclassified	26,290	100.0	8,913	33.9	17,377	66.1
Inactive, other	29,324	100.0	1,610	5.5	27,714	94.5

[1] No pathologists were in scope.

from a low of 5.5 percent of the inactive and other physicians to a high of 33.9 percent of the unclassified physicians. When ranked according to size, none of the proportions differed significantly from adjacent ranks, but two observations could be made. The first is that the proportion of unclassified physicians who were in scope for the Complement Survey was significantly higher than the corresponding proportions of all other activity groups except teaching and research. The second is that the proportion of inactive and other physicians who were eligible to participate in the Complement Survey was significantly lower than the proportions of all other groups except federally employed physicians.

The estimated number of office visits made to the physicians eligible for the Complement Survey is presented in table 3. Unclassified and hospital-based physicians accounted for approximately two-thirds of all office visits to non-office-based physicians. Despite the fact that the proportion of in-scope physicians who were hospital-based significantly exceeded the proportion who were unclassified, the frequencies and proportion of visits to these two groups did not differ significantly. Of all visits to Complement Survey physicians, 23.9 million (34.8 percent) were to unclassified ones and 22.6 million (32.9 percent) were to hospital-based ones.

This lack of a difference in the number and proportion of visits is the result of the relatively high estimated average number of visits per year made to unclassified physicians. Several observations imply that the professional group category of unclassified physicians includes an unknown number of office-based physicians excluded from the NAMCS physician universe. The in-scope unclassified physicians had approxi-

mately 2,700 visits per physician during the survey year, while all other in-scope physicians had approximately 1,500 per physician. Because the office-based physicians included in NAMCS had an average of approximately 3,500 visits per physician in 1980, there clearly is a possibility that the "unclassified" physicians include some who would have been classified in the office-based patient care professional group if sufficient information had been available to the American Medical Association (AMA) or the American Osteopathic Association (AOA) for their classification of physicians according to primary professional activity.

The telephone screening interview principal activity data indicate that the majority of all non-office-based physicians (131,000, or 57.9 percent) was primarily engaged in patient care (table 4). Only 40,000 non-office-based physicians, or 17.6 percent of all, reported that they were mainly engaged in other activities. Of the physicians primarily engaged in patient care, 26.6 percent provided patient care in an office setting, and thus were in scope for the Complement Survey. Of the other non-office-based physicians, only 7.3 percent cared for patients in an office setting and were in scope for the Complement Survey. As a result, an estimated 92.3 percent of all in-scope physicians reported that their primary professional activity was patient care.

A cross-tabulation of professional classification and the telephone screening interview patient care variable for in-scope physicians only is presented in table 5. A large majority of the physicians in each professional group reported during the telephone screening interview that patient care was their main activity. The percents ranged from a low of 65.5 percent of

Table 3. Estimated number and percent distribution of office visits to non-office-based physicians by type of professional group: United States, 1980

Professional group	Office visits	
	Number in thousands	Percent distribution
All physicians.	68,556	100.0
Federal	3,192	4.7
Hospital-based patient care	22,576	32.9
Teaching	3,281	4.8
Research	4,621	6.7
Administration	1,567	2.3
Anesthesiologists and radiologists[1]	8,179	11.9
Unclassified	23,872	34.8
Inactive, other	1,269	1.9

[1]Of these visits, 95 percent were to radiologists.

Table 4. Estimated number and percent distribution of non-office-based physicians by scope, according to major activity: United States, 1980

Major activity	Physicians					
	Total		In scope		Out of scope	
	Number	Percent	Number	Percent	Number	Percent
All physicians	226,123	100.0	37,805	16.7	188,318	83.3
Patient care	130,946	100.0	34,894	26.6	96,052	73.4
Other	39,785	100.0	2,911	7.3	36,874	92.7
Unknown	55,392	100.0	-	-	55,392	100.0

NOTE: Data from telephone screening interview.

Table 5. Estimated number and percent distribution of in-scope physicians by patient care activity status, according to type of professional group: United States, 1980

Professional group	Physicians					
	Total		Telephone screening interview			
			Major activity is patient care		Major activity is not patient care	
	Number	Percent	Number	Percent	Number	Percent
All in-scope physicians	37,805	100.0	34,894	92.3	2,911	7.7
Federal	1,891	100.0	1,574	83.2	317	16.8
Hospital-based patient care	13,998	100.0	13,768	98.4	230	1.6
Research	3,075	100.0	2,613	85.0	462	15.0
Teaching	1,985	100.0	1,630	82.1	355	17.9
Administration	1,946	100.0	1,274	65.5	672	34.5
Anesthesiologists and radiologists	4,387	100.0	4,130	94.1	257	5.9
Unclassified	8,913	100.0	8,403	94.3	510	5.7
Inactive, other	1,610	100.0	1,502	93.3	108	6.7

Table 6. Estimated number and percent distribution of non-office-based physicians by scope, according to specialty listed by the American Medical Association (AMA) or the American Osteopathic Association (AOA): United States, 1980

AMA or AOA[1] specialty	Physicians					
	Total		In scope		Out of scope	
	Number	Percent distribution	Number	Percent distribution	Number	Percent distribution
All physicians	226,123	100.0	37,805	16.7	188,318	83.3
General and family practice	18,968	100.0	4,537	23.9	14,431	76.1
Medical specialties	60,231	100.0	10,008	16.6	50,223	83.4
Internal medicine	38,731	100.0	6,387	16.5	32,344	83.5
Pediatrics	11,764	100.0	1,583	13.5	10,181	86.5
Other	9,736	100.0	2,038	20.9	7,698	79.1
Surgical specialties	39,335	100.0	8,476	21.5	30,859	78.5
General surgery	16,146	100.0	1,752	10.9	14,394	89.1
Obstetrics and gynecology	8,839	100.0	2,436	27.6	6,403	72.4
Other	14,350	100.0	4,288	29.9	10,062	70.1
Other specialties	102,549	100.0	13,556	13.2	88,993	86.8
Psychiatry	15,787	100.0	4,195	26.6	11,592	73.4
Anesthesiology, pathology, and radiology[2]	53,571	100.0	5,297	9.9	48,274	90.1
Other	33,191	100.0	4,064	12.2	29,127	87.8
Unknown	5,040	100.0	1,228	24.4	3,812	75.6

[1]AMA or AOA = American Medical Association or American Osteopathic Association.
[2]No pathologists were in scope.

those in the administration group to a high of 98.4 percent of those in the hospital-based patient care group. Despite this variation, the differences between adjacent ranks were not significant.

Finally, the distribution of all non-office-based physicians by AMA or AOA specialty and scope is presented in table 6. The rank order of the major specialty types was the same for all physicians and for just the in-scope ones. Among the in-scope physicians, the most common type was other specialties (14,000); of these, a substantial 39.1 percent (or 14.0 percent of all in-scope physicians) was in the category entirely excluded from NAMCS—radiologists and anesthesiologists. Significantly smaller than this were the numbers of medical specialists (10,000) and surgical specialists (8,000). The smallest groups were general and family practitioners (5,000) and physicians with an AMA or AOA specialty classification of unknown (1,000).

The percent of physicians in each AMA or AOA major specialty type that was in scope for the Complement Survey varied from 13.2 percent for other specialists to 24.4 percent for those with an unknown specialty. Of general and family practitioners, 23.9 percent were in scope, as were 21.5 percent of surgical specialists and 16.6 percent of medical specialists. Although this variation appeared, no difference between adjacent ranked percents was statistically significant.

Section V
Patient data

This section summarizes the data on patient visits obtained through the 1980 Complement Survey. In addition, the information on Complement Survey visits is compared and contrasted with 1980 National Ambulatory Medical Care Survey (NAMCS) visit information.

The demographic characteristics of the patients who made office visits in 1980 are shown in table 7. There were an estimated 68.6 million visits to Complement Survey physicians, of which the largest proportions were made by persons 25–44 years of age (28.5 percent) and persons 45–64 years of age

(24.6 percent). The smallest proportions of visits were made by persons 15–24 years of age (13.9 percent) and persons 65 years of age and over (14.4 percent). The age distribution for visits included in the Complement Survey differed significantly from the age distribution for NAMCS visits in only one respect— the proportion of Complement Survey visits made by persons 65 years old and older (14.4 percent) was smaller than the corresponding proportion of NAMCS visits (17.5 percent).

For each survey, the proportion of visits made by females was significantly greater than the proportion made by males.

Table 7. Estimated number and percent distribution of office visits to Complement Survey and National Ambulatory Medical Care Survey (NAMCS) physicians by selected patient characteristics: United States, 1980

Characteristic	Office visits			
	Complement Survey		NAMCS	
	Number in thousands	Percent distribution	Number in thousands	Percent distribution
Both sexes				
All ages	68,556	100.0	575,745	100.0
Under 15 years	12,764	18.6	109,356	19.0
15–24 years	9,515	13.9	81,561	14.2
25–44 years	19,540	28.5	154,695	26.9
45–64 years	16,863	24.6	129,645	22.5
65 years and over	9,874	14.4	100,488	17.5
Female				
All ages	40,077	58.5	346,106	60.1
Under 15 years	5,601	8.2	50,503	8.8
15–24 years	5,851	8.5	54,879	9.5
25–44 years	13,037	19.0	103,562	18.0
45–64 years	9,953	14.5	76,385	13.3
65 years and over	5,634	8.2	60,777	10.6
Male				
All ages	28,479	41.5	229,639	39.9
Under 15 years	7,163	10.4	58,852	10.2
15–24 years	3,664	5.3	26,682	4.6
25–44 years	6,503	9.5	51,134	8.9
45–64 years	6,909	10.1	53,260	9.3
65 years and over	4,240	6.2	39,712	6.9
Race				
White	59,696	87.1	516,616	89.7
All other	8,860	12.9	59,129	10.3
Black	7,505	11.0	52,872	9.2
Asian or Pacific Islander	787	1.2	4,133	0.7
American Indian or Alaskan Native	*569	*0.8	2,124	0.4
Ethnicity				
Hispanic	6,771	9.9	28,720	5.0
Non-Hispanic	61,785	90.1	547,025	95.0

However, the two surveys did not differ significantly in the proportion of visits made by each sex. The two surveys also did not differ significantly in the proportion of visits made by each age group within each sex, with one exception. In the Complement Survey, 8.2 percent of all visits were made by females 65 years old and older, compared with 10.6 percent in NAMCS. This difference for elderly females accounts for the earlier observation that the proportion of visits made by persons 65 years old and older was somewhat smaller for the Complement Survey than for NAMCS.

The visits to Complement Survey physicians were more likely to be made by minority group members than the visits to NAMCS physicians were. Persons of all races other than white made 12.9 percent of the visits to Complement Survey physicians, an amount that was slightly, but significantly, greater than the corresponding 10.3 percent of visits to NAMCS physicians. Most of this difference is accounted for by blacks, who made a significantly higher proportion of the visits to Complement Survey physicians (11.0 percent) than of the visits to NAMCS physicians (9.2 percent). Similarly, Hispanic persons made 9.9 percent of the Complement Survey visits, but only 5.0 percent of the NAMCS visits.

The distributions of Complement Survey and NAMCS visits according to physician and physician practice characteristics are presented in table 8. The differing specialty distributions of the physicians participating in the two surveys led to differing physician specialty distributions for the visits recorded by the surveys. The most important difference is that visits to the major specialty type of other specialists accounted for a greater proportion of Complement Survey visits (18.7 percent) than of NAMCS visits (6.0 percent). This is because the Complement Survey included radiologists and anesthesiologists in this category, but NAMCS excluded all practitioners with these specialties. Of all Complement Survey visits, 13.2 percent, or 9.1 million, were to these specialists. If these visits are excluded from consideration, only 6.3 percent of the Complement Survey visits were to other specialists, a proportion that did not differ significantly from that noted for NAMCS.

Another difference is that regardless of whether data on all Complement Survey visits or only data on visits to those physicians who did not specialize in radiology or anesthesiology are used, visits to Complement Survey physicians were less concentrated in general and family practice than visits to NAMCS physicians were. Visits to general and family practitioners accounted for a smaller proportion of all Complement Survey visits (21.6 percent) than of NAMCS visits (33.3 percent). Excluding visits to radiologists and anesthesiologists raises the proportion for Complement Survey physicians to 24.9 percent, but that amount is still significantly smaller than the one noted for NAMCS physicians.

In addition, of all visits to Complement Survey physicians, the proportions that were to medical specialists (33.4 percent)

Table 8. Estimated number and percent distribution of office visits to Complement Survey and National Ambulatory Medical Care Survey (NAMCS) physicians by selected physician and physician practice characteristics: United States, 1980

Physician and physician practice characteristic	Office visits			
	Complement Survey		NAMCS	
	Number in thousands	Percent distribution	Number in thousands	Percent distribution
All visits	68,556	100.0	575,745	100.0
Physician specialty				
General and family practice	14,833	21.6	191,744	33.3
Medical specialties	22,911	33.4	177,127	30.8
Internal medicine	10,719	15.6	69,481	12.1
Pediatrics	7,058	10.3	64,223	11.2
Other	5,134	7.5	43,423	7.5
Surgical specialties	17,974	26.2	172,524	30.0
General surgery	1,767	2.6	28,315	4.9
Obstetrics and gynecology	6,266	9.1	55,123	9.6
Other	9,941	14.5	89,086	15.5
Other specialties	12,838	18.7	34,350	6.0
Psychiatry	3,045	4.4	15,856	2.8
Anesthesiology and radiology[1]	9,061	13.2	[1]...	[1]...
Other	731	1.1	18,494	3.2
Type of practitioner				
Doctor of medicine	65,275	95.2	539,593	93.7
Doctor of osteopathy	3,281	4.8	36,152	6.3
Type of practice				
Solo	34,000	49.6	313,963	54.5
Other	34,557	50.4	261,783	45.5
Location of practice				
Metropolitan	57,356	83.7	439,721	76.4
Nonmetropolitan	11,200	16.3	136,024	23.6

[1]The NAMCS sample of physicians excluded physicians with these specialties. In the Complement Survey, 95 percent of these visits were to radiologists.

and to surgical specialists (26.2 percent) did not differ significantly from the proportions of NAMCS visits made to medical specialists (30.8 percent) and surgical specialists (30.0 percent). After excluding Complement Survey data on radiologists and anesthesiologists, however, Complement Survey and NAMCS physicians did differ in the proportion of visits made to medical specialists—the Complement Survey proportion (38.5 percent) was greater than the NAMCS proportion (30.8 percent).

The vast majority of visits in both surveys were made to doctors of medicine rather than to doctors of osteopathy. Visits to doctors of osteopathy, however, accounted for a slightly smaller proportion of all Complement Survey visits (4.8 percent) than of NAMCS visits (6.3 percent). Although the difference is substantively small, it is statistically significant.

The distribution of visits according to type of practice differed for the two surveys. Visits to solo practitioners accounted for a slightly smaller proportion of Complement Survey visits (49.6 percent) than of NAMCS visits (54.5 percent), a difference that is, however, statistically significant.

The last physician practice characteristic compared for the Complement Survey and NAMCS is the practice location. Visits to physicians in metropolitan locations accounted for the large majority of both Complement Survey visits (83.7 percent) and NAMCS visits (76.4 percent). The proportion of visits occurring in metropolitan areas was significantly greater for the Complement Survey, however, than for NAMCS.

A comparison of several patient status variables for the two surveys is shown in table 9. For the Complement Survey, the most common major reason for visit was to obtain care for an acute problem (26.0 million visits, or 38.0 percent of all visits). Less common major reasons were a routine visit for care of a chronic problem (19.8 million visits, or 28.8 percent), and nonillness care (11.1 million visits, or 16.2 percent). The

least frequently cited major reasons for visit were to obtain postsurgery or postinjury care (5.9 million visits, or 8.6 percent) and to obtain care for a flareup of a chronic problem (5.7 million visits, or 8.3 percent). None of these percents differed significantly from those obtained for NAMCS, indicating that the types of problems leading to office visits were quite similar for both sets of physicians.

In both surveys, returning patients accounted for a much larger proportion of visits than new patients did. Furthermore, many more of the visits made by returning patients were made for an old problem rather than a new one. Despite these similarities, however, there also was an important difference—returning patients accounted for a significantly smaller proportion of the Complement Survey visits than of the NAMCS visits (74.0 percent, compared with 85.1 percent). The larger role played by new patients in the practices of Complement Survey physicians may be explained by the observation that patients who had been referred by another physician made a larger proportion of the Complement Survey visits (14.6 percent) than of the NAMCS visits (4.4 percent).

The Patient Record form used in the Complement Survey and NAMCS allowed for recording the patient's description of the most important and other complaints, symptoms, or other reasons for visit. These reasons were coded according to "A reason for visit classification for ambulatory care."[1] This coding system includes major categories, such as symptoms or test results, as well as specific reason for visit codes.

The similarity between the Complement Survey and NAMCS data with respect to reason for visit categories is striking, as the two surveys not only showed the same three leading categories, but also did not show significant differences in the proportion of visits recorded in any major category or any symptom subcategory. (See table 10.) In both surveys,

Table 9. Estimated number and percent distribution of office visits to Complement Survey and National Ambulatory Medical Care Survey (NAMCS) physicians by major reason for visit, prior visit status, and referral status: United States, 1980

Visit characteristic	Office visits			
	Complement Survey		NAMCS	
	Number in thousands	Percent distribution	Number in thousands	Percent distribution
All visits	68,556	100.0	575,745	100.0
Major reason for visit				
Acute problem	26,023	38.0	208,428	36.2
Chronic problem, routine	19,772	28.8	162,075	28.2
Chronic problem, flareup	5,721	8.3	52,703	9.2
Postsurgery, postinjury	5,912	8.6	50,169	8.7
Non-illness care[1]	11,128	16.2	102,370	17.8
Prior visit status				
New patient	17,809	26.0	85,519	14.9
Old patient	50,747	74.0	490,226	85.1
New problem	11,890	17.3	130,294	22.6
Old problem	38,857	56.7	359,932	62.5
Referral status				
Referred by another physician	10,023	14.6	25,370	4.4
Not referred by another physician	58,533	85.4	550,375	95.6

[1]Includes, for example, routine prenatal care, general examination, and well-baby examination.

Table 10. Estimated number and percent distribution of office visits to Complement Survey and National Ambulatory Medical Care Survey (NAMCS) physicians by patient's principal reason for visit: United States, 1980

Principal reason for visit and RVC code[1]	Office visits			
	Complement Survey		NAMCS	
	Number in thousands	Percent distribution	Number in thousands	Percent distribution
All visits..	68,556	100.0	575,745	100.0
Symptom module.. S001–S999	36,090	52.6	313,162	54.4
General symptoms.. S001–S099	5,229	7.6	43,730	7.6
Symptoms referable to psychological and mental disorders............... S100–S199	2,459	3.6	15,529	2.7
Symptoms referable to nervous system (excluding sense organs)......... S200–S259	1,892	2.8	17,449	3.0
Symptoms referable to the cardiovascular and lymphatic systems......... S260–S299	*402	*0.6	3,336	0.6
Symptoms referable to the eyes and ears.............................. S300–S399	3,903	5.7	33,360	5.8
Symptoms referable to the respiratory system......................... S400–S499	5,807	8.5	54,710	9.5
Symptoms referable to the digestive system........................... S500–S639	4,829	7.0	26,011	4.5
Symptoms referable to the genitourinary system....................... S640–S829	3,102	4.5	26,475	4.6
Symptoms referable to the skin, nails, and hair....................... S830–S899	2,745	4.0	38,330	6.7
Symptoms referable to the musculoskeletal system.................... S900–S999	5,722	8.4	54,233	9.4
Disease module... D001–D999	6,650	9.7	46,279	8.0
Diagnostic, screening, and preventive module....................... X100–X599	11,594	16.9	112,726	19.6
Treatment module.. T100–T899	7,706	11.2	59,110	10.3
Injuries and adverse effects module J001–J999	3,441	5.0	23,151	4.0
Test results module R100–R700	*353	*0.5	2,601	0.5
Administrative module.. A100–A140	899	1.3	8,830	1.5
Other[2].. U990–U999	1,824	2.7	9,887	1.7

[1]Based on National Center for Health Statistics: D. Schneider, L. Appleton, and T. McLemore: A reason for visit classification for ambulatory care [RVC]. *Vital and Health Statistics.* Series 2, No. 78. DHEW Pub. No. (PHS) 79–1352. Public Health Service. Washington. U.S. Government Printing Office, Feb. 1979.
[2]Includes blanks, entries marked "none"; illegible entries, and problems and symptoms not elsewhere classified.

symptoms were the most frequently cited reasons for visit, accounting for approximately half of all visits (52.6 percent of Complement Survey visits and 54.4 percent of NAMCS visits). Diagnostic, screening, and preventive care was the second most commonly given reason, appearing for 16.9 percent of the Complement Survey visits and 19.6 percent of NAMCS visits. Treatment, the third most commonly cited principal reason for visit, was recorded for 11.2 percent of Complement Survey visits and 10.3 percent of NAMCS visits.

The 20 most common specific reasons for Complement Survey visits accounted for 41.2 percent of all visits and are presented in table 11. (The ordering of these reasons may be somewhat arbitrary because the frequencies and proportions for adjacent ranks did not differ significantly.) Again, the similarity between the reasons for visits included in the Complement Survey and those for visits included in NAMCS is striking. The first four reasons most frequently cited for Complement Survey visits—general medical examinations; routine prenatal examinations; postoperative visits; and progress visits, not otherwise specified—were the same as the first four cited for NAMCS visits. Furthermore, of the 20 reasons most frequently cited for Complement Survey visits, 17 were among the 20 most common reasons for NAMCS visits.

Information on the ordering or provision of diagnostic services during office visits is presented in table 12. Excluding visits in which no diagnostic services were ordered or provided, for both surveys the number and proportion of visits decreased as the number of diagnostic services increased. The largest number and proportion of Complement Survey visits involved one diagnostic service (33.3 million visits, or 48.6 percent of all visits), followed by visits in which two of these services were ordered or provided (18.8 million, or 27.5 percent), visits

in which three or more services were ordered or provided (10.2 million, or 14.8 percent), and visits in which no such services were involved (6.2 million, or 9.1 percent). The two surveys did not differ significantly in the average number of diagnostic services ordered or provided during visits. This average was 1.5 for the Complement Survey and 1.6 for NAMCS.

For both surveys, the most common diagnostic services ordered or provided were a limited history or examination, a blood pressure check, and a clinical laboratory test. However, the proportion of visits involving a limited history or examination was smaller for the Complement Survey than for NAMCS (53.1 percent compared with 63.8 percent), as was the proportion of visits involving a clinical laboratory test (17.8 percent compared with 21.8 percent). An additional difference between the two surveys was that X-rays were ordered or provided in 17.8 percent of the Complement Survey visits, but only 7.3 percent of the NAMCS visits. This last difference was expected because radiologists were included in the Complement Survey, but not in NAMCS.

Diagnostic information for the Complement Survey and NAMCS was coded according to the *International Classification of Diseases, 9th Revision, Clinical Modification.*[2] The distribution of principal diagnoses according to the major diagnostic classes for both surveys is presented in table 13. As with the reason for visit distributions presented earlier, there was little difference between the diagnostic distributions of the two types of visit. The leading classes of principal diagnosis were the same—supplementary classification of factors influencing health status and contact with health service, diseases of the respiratory system, and diseases of the nervous system and sense organs. (The rankings of diagnostic classes and

Table 11. Estimated number and percent distribution of office visits to Complement Survey physicians by the 20 most common principal reasons for visit in rank order for the Complement Survey with the comparable National Ambulatory Medical Care Survey (NAMCS) ranks: United States, 1980

NAMCS rank	Complement Survey rank	Principal reason for visit and RVC code[1]		Complement Survey office visits	
				Number in thousands	Percent distribution
		All reasons for visit		68,556	100.0
1	1	General medical examination	X100	3,030	4.4
2	2	Prenatal examination, routine	X205	2,830	4.1
3	3	Postoperative visit	T205	1,972	2.9
4	4	Progress visit, not otherwise specified	T800	1,906	2.8
15	5	Abdominal pain, cramps, spasms	S550	1,727	2.5
8	6	Well-baby examination	X105	1,716	2.5
19	7	Vision dysfunctions	S305	1,462	2.1
6	8	Cough	S440	1,214	1.8
5	9	Symptoms referable to throat	S455	1,179	1.7
10	10	Head cold, upper respiratory infection	S445	1,168	1.7
16	11	Chest pain and related symptoms (not referable to body system)	S050	1,156	1.7
7	12	Back symptoms	S905	1,145	1.7
12	13	Earache, or ear infection	S355	1,078	1.6
	14	Other diseases of blood and blood-forming organs	D255	1,071	1.6
	15	Anxiety and nervousness	S100	1,067	1.6
14	16	Headache, pain in head	S210	982	1.4
11	17	Fever	S010	979	1.4
20	18	Eye examination	X230	894	1.3
	19	Allergy medication	T100	851	1.2
13	20	Blood pressure test	X320	849	1.2
		All other reasons for visit		40,281	58.8

[1]Based on National Center for Health Statistics: D. Schneider, L. Appleton, and T. McLemore: A reason for visit classification for ambulatory care [RVC]. *Vital and Health Statistics.* Series 2, No. 78. DHEW Pub. No. (PHS) 79–1352. Public Health Service. Washington. U.S. Government Printing Office, Feb. 1979.

Table 12. Estimated number and percent distribution of office visits to Complement Survey and National Ambulatory Medical Care Survey (NAMCS) physicians by number and type of diagnostic services ordered or provided: United States, 1980

Number of diagnostic services and type of diagnostic service	Office visits			
	Complement Survey		NAMCS	
	Number in thousands	Percent distribution	Number in thousands	Percent distribution
All visits	68,566	100.0	575,745	100.0
Number of diagnostic services				
0	6,231	9.1	47,126	8.2
1	33,297	48.6	255,325	44.3
2	18,844	27.5	175,413	30.5
3 or more	10,184	14.8	97,881	17.0
Type of diagnostic service[1]				
None	6,231	9.1	47,126	8.2
Limited history, exam	36,427	53.1	367,467	63.8
General history, exam	11,878	17.3	90,790	15.8
Pap test	2,471	3.6	25,419	4.4
Clinical laboratory test	12,187	17.8	125,613	21.8
X-ray	11,637	17.0	41,925	7.3
Blood pressure check	20,638	30.1	195,382	33.9
Electrocardiogram	1,737	2.5	16,294	2.8
Vision test	4,078	6.0	32,726	5.7
Endoscopy	*462	*0.7	4,687	0.8
Mental status exam	779	1.1	8,907	1.5
Other	2,905	4.2	29,222	5.1

[1]Does not add to 100.0 because more than one diagnostic service may have been ordered or provided during a visit.

Table 13. Estimated number and percent distribution of office visits to Complement Survey and National Ambulatory Medical Care Survey (NAMCS) physicians by principal diagnosis: United States, 1980

Principal diagnosis and ICD–9–CM code[1]	Office visits			
	Complement Survey		NAMCS	
	Number in thousands	Percent distribution	Number in thousands	Percent distribution
All diagnoses.	68,556	100.0	575,745	100.0
Infectious and parasitic diseases. 001–139	2,041	3.0	19,628	3.4
Neoplasms. 140–239	3,035	4.4	16,021	2.8
Endocrine, nutritional, and metabolic diseases and immunity disorders 240–279	2,407	3.5	24,166	4.2
Mental disorders. 290–319	3,519	5.1	24,343	4.2
Diseases of the nervous system and sense organs 320–389	6,134	9.0	52,593	9.1
Diseases of the circulatory system. 390–459	5,782	8.4	53,691	9.3
Diseases of the respiratory system 460–519	7,160	10.4	72,886	12.7
Diseases of the digestive system. 520–579	3,996	5.8	23,421	4.1
Diseases of the genitourinary system 580–629	5,006	7.3	32,936	5.7
Diseases of the skin and subcutaneous tissue 680–709	2,583	3.8	36,214	6.3
Diseases of the musculoskeletal system and connective tissue 710–739	4,185	6.1	36,839	6.4
Symptoms, signs, and ill-defined conditions 780–799	2,314	3.4	19,020	3.3
Injury and poisoning. 800–999	5,225	7.6	46,187	8.0
Supplementary classification of factors influencing health status and contact with health service. V01–V82	12,519	18.3	102,237	17.8
All other diagnoses[2]	1,159	1.7	7,951	1.4
Unknown diagnoses[3]	1,491	2.2	7,613	1.3

[1]Based on U.S. Public Health Service and Health Care Financing Administration: *International Classification of Diseases, 9th Revision, Clinical Modification.* DHHS Pub. No. (PHS) 80–1260. Public Health Service. Washington. U.S. Government Printing Office, Sept. 1980.
[2]Includes diseases of the blood and blood-forming organs (280–289); complications of pregnancy, childbirth, and the puerperium (630–676); congenital anomalies (740–759); and certain conditions originating in the perinatal period (760–779).
[3]Includes blank diagnoses, noncodable diagnoses, and illegible diagnoses.

specific diagnoses may be arbitrary, however, as the differences between numbers or percents of visits for adjacent ranks were not always significant, particularly for the Complement Survey.)

The 15 most common specific principal diagnoses associated with visits to Complement Survey physicians, accounting for 33.9 percent of these visits, are tabulated in table 14. The leading diagnoses were essential hypertension, observation and

evaluation for suspected conditions, and normal pregnancy. Eleven of the 15 diagnoses also were among the 15 most common principal diagnoses for NAMCS visits.

Drug visits for the Complement Survey and NAMCS are tabulated according to physician specialty in table 15. A drug visit is an office visit in which one or more therapeutic medications were ordered or provided; the medications involved may

Table 14. Estimated number and percent distribution of office visits to Complement Survey physicians for the 15 most common principal diagnoses in rank order for the Complement Survey with the comparable National Ambulatory Medical Care Survey (NAMCS) ranks: United States, 1980

NAMCS rank	Complement Survey rank	Principal diagnosis and ICD–9–CM code[1]	Complement Survey office visits	
			Number in thousands	Percent distribution
		All diagnoses	68,556	100.0
2	1	Essential hypertension 401	2,837	4.1
	2	Observation and evaluation for suspected conditions V71	2,580	3.8
1	3	Normal pregnancy. V22	2,487	3.6
3	4	Health supervision of infant or child V20	2,306	3.4
5	5	Acute upper respiratory infections of multiple or unspecified sites. 465	1,814	2.6
6	6	Suppurative and unspecified otitis media 382	1,742	2.5
7	7	Neurotic disorders 300	1,580	2.3
	8	Disorders of refraction and accommodation 367	1,286	1.9
4	9	General medical examination V70	1,229	1.8
11	10	Special investigations and examinations. V72	1,111	1.6
	11	Renal failure, unspecified 586	1,056	1.5
9	12	Followup examination. V67	1,030	1.5
10	13	Diabetes mellitus. 250	923	1.3
15	14	Other forms of chronic ischemic heart disease. 414	*675	1.0
	15	Other and unspecified arthropathies 716	*608	0.9
		All other diagnoses . . . . . Residual	45,292	66.1

[1]Based on U.S. Public Health Service and Health Care Financing Administration: *International Classification of Diseases, 9th Revision, Clinical Modification.* DHHS Pub. No. (PHS) 80–1260. Public Health Service. Washington. U.S. Government Printing Office, Sept. 1980.

13

Table 15. Estimated number of drug visits and drug visits as a percent f all office visits, by physician specialty for the Complement Survey and the National Ambulatory Medical Care Survey (NAMCS): United States, 1980

	Drug visits			
	Complement Survey		NAMCS	
Physician specialty	Number in thousands	As percent of all office visits	Number in thousands	As percent of all office visits
All specialties..	35,650	52.0	363,489	63.1
General and family practice....................................	10,816	72.9	144,478	75.3
Medical specialties	16,896	73.7	131,775	74.4
Internal medicine...	8,844	82.5	53,091	76.4
Pediatrics	4,220	59.8	45,575	71.0
Other..	3,832	74.7	33,108	76.2
Surgical specialties	6,033	33.6	67,912	39.4
General surgery	*340	*19.2	9,860	34.8
Obstetrics and gynecology	2,515	40.1	23,984	43.5
Other..	3,178	32.0	34,068	38.2
Other specialties	1,905	14.8	19,325	56.3
Psychiatry...	1,115	36.6	5,706	36.0
Anesthesiology and radiology[1]	*580	6.4	...	...
Other..	*209	*28.6	13,619	73.6

[1]The NAMCS sample of physicians excluded physicians with these specialties. In the Complement Survey, 95 percent of these visits were to radiologists.

have been either prescription or nonprescription drugs. The distribution of drug visits among the major specialty types reflects the differing visit distributions across physician specialties observed in table 8. For Complement Survey physicians, medical specialists accounted for the largest number of drug visits (16.9 million), and general and family practitioners accounted for the second largest number (10.8 million). This order was reversed for NAMCS physicians. There were 144.5 million drug visits to general and family practitioners and 131.8 million to medical specialists. Drug visits to surgical specialists and other specialists accounted for smaller numbers of drug visits in each survey.

Data on drug visits as a percent of all visits for both surveys are presented in table 15. These statistics indicate that the proportion of visits in which one or more medications were ordered or provided was significantly smaller for the Complement Survey (52.0 percent) than for NAMCS (63.1 percent). This result is largely explained by the inclusion of radiologists and anesthesiologists in the Complement Survey, but not NAMCS. The Complement Survey recorded an estimated 9.1 million visits to these specialists, with one or more therapeutic medications ordered or provided in only 0.6 million of them, or 6.4 percent. If visits to these specialists are excluded from consideration, 58.9 percent of the remaining 59.5 million Complement Survey visits involved the ordering or provision of therapeutic medication. Although the difference between this and the percent of NAMCS visits that were drug visits is smaller than the original difference, it is still statistically significant.

Statistics on drug mentions, according to the specialty of the prescribing physician, are presented in table 16. A drug mention is the order or provision of a specific therapeutic medication, either prescription or nonprescription. The NAMCS and Complement Survey data collection forms allowed for recording as many as eight such medications for each visit sampled. There were an estimated 72.3 million drug mentions recorded by the Complement Survey. The largest numbers

of these were made by medical specialists (39.5 million) and general and family practitioners (21.0 million). Although proportions are not shown in the table, the proportion of all drug mentions made by Complement Survey physicians of each major specialty type and of each specific specialty included in table 16 did not differ significantly from the proportion made by the corresponding type or specific specialty of NAMCS physicians.

The number of drug mentions per office visit (the drug mention rate) for both surveys also is presented in table 16. Complement Survey physicians made an average of 1.05 drug mentions for each visit, which did not differ significantly from the average of 1.18 for NAMCS physicians. Of the Complement Survey physicians, medical specialists, with a drug mention rate of 1.72, and general and family practitioners, with a drug mention rate of 1.42, each prescribed more drugs per visit than either surgical specialists (0.49) or other specialists (0.24).

Only one significant difference appeared between corresponding NAMCS and Complement Survey major specialty types or specific specialties in the average number of drugs provided or ordered during an office visit. Other specialists in NAMCS had a higher drug mention rate than those in the Complement Survey (1.08 compared with 0.24). This was the result of the subcategory of other, which had a mention rate of 1.49 in NAMCS and 0.42 in the Complement Survey.

Data on the average number of drug mentions for drug visits, or the drug intensity rate, according to physician specialty are also given in table 16. There were even fewer significant differences among these rates, within each survey and between the two surveys, than there were among the drug mention rates. The Complement Survey overall drug intensity rate, major specialty type rates, and specific specialty rates did not differ significantly from the corresponding rates for NAMCS. The overall drug intensity rate was 2.03 for the Complement Survey and 1.87 for NAMCS. Within each survey, the rates for the major physician specialty types did not differ significantly. Within each major specialty type for the Complement Survey,

Table 16. Estimated number of drug mentions, estimated number of drug mentions per office visit, and estimated number of drug mentions per drug visit, by physician specialty for the Complement Survey and the National Ambulatory Medical Care Survey (NAMCS): United States, 1980

| | Drug mentions | | | | | |
| Physician specialty | Complement Survey | | | NAMCS | | |
	Number in thousands	Per office visit	Per drug visit	Number in thousands	Per office visit	Per drug visit
All specialties	72,296	1.05	2.03	679,593	1.18	1.87
General and family practice	20,991	1.42	1.94	279,186	1.46	1.93
Medical specialties	39,485	1.72	2.34	262,209	1.48	1.99
Internal medicine	23,884	2.23	2.70	118,943	1.71	2.24
Pediatrics	*5,928	0.84	1.40	72,825	1.13	1.60
Other	*9,673	*1.88	2.52	70,442	1.65	2.13
Surgical specialties	8,801	0.49	1.46	100,953	0.59	1.49
General surgery	*523	*0.30	*1.54	15,881	0.56	1.61
Obstetrics and gynecology	*3,504	*0.56	*1.39	33,026	0.60	1.38
Other	4,774	0.48	1.50	52,047	0.58	1.53
Other specialties	3,019	0.24	*1.58	37,245	1.08	1.93
Psychiatry	*1,596	0.52	*1.43	9,655	0.61	1.69
Anesthesiology and radiology[1]	*1,118	*0.12	*1.93	...	...	...
Other	*304	*0.42	*1.45	27,590	1.49	2.03

[1]The NAMCS sample of physicians excluded physicians with these specialties. In the Complement Survey, 95 percent of these visits were visits to radiologists.

the drug intensity rates of the specific specialties included in table 16 did not differ significantly. For NAMCS, however, significant differences did appear within the medical specialist type. The drug intensity rates for specialists in internal medicine (2.24) and other medical specialties (2.13) did not differ, but both were greater than that for pediatricians (1.60). This small variation in the patterning of these rates by physician specialty is the only noteworthy difference in drug utilization that appeared between the surveys.

The frequency and percent distributions of drug mentions tabulated by the therapeutic categories of the drugs ordered or provided are shown in table 17. The therapeutic categories are groupings of drugs according to their desired effects, and are based on the classification system used by the American Society of Hospital Pharmacists (appendix IV). The categories of drugs most frequently ordered or provided by Complement Survey physicians were central nervous system drugs (with 12.5 million mentions, or 17.2 percent of all mentions), cardiovascular drugs (8.6 million, or 11.9 percent), and anti-infective agents (8.1 million, or 11.2 percent). This ranking of therapeutic categories may be arbitrary, however, as the frequencies and percents did not differ significantly among themselves.

Among NAMCS physicians, a very similar percent distribution appeared—central nervous system drugs (16.3 percent of all drug mentions) and anti-infective agents (15.4 percent) were not ordered or provided significantly differently, but both were ordered or provided significantly more frequently than the third-ranked drug category of cardiovascular drugs (9.5 percent). Consequently, it appears that the lack of statistically significant differences among the therapeutic categories of the drugs ordered or provided by the Complement Survey physicians simply may be a result of the comparatively large relative standard errors estimated for the statistics of that survey. (NAMCS, based on a much larger sample, has correspondingly smaller relative standard errors, and so comparatively small differences between percents can attain statistical significance.)

This is supported by the observation that NAMCS and the Complement Survey significantly differed in the percent of drug mentions in the therapeutic categories for only one category—anti-infective agents. The proportion of all drug mentions that were in this category was significantly smaller for the Complement Survey (11.2 percent) than for NAMCS (15.4 percent). This difference was due to different prescribing patterns for the subcategory of antibiotics; for the Complement Survey only 9.4 percent of all drug mentions were antibiotics, compared with 13.3 percent for NAMCS.

The trend displayed in the distribution of visits according to the number of nonmedication therapeutic services ordered or provided was identical for the two surveys—the number and percent of visits decreased significantly with each increase in the number of these services. (See table 18.) In the Complement Survey, 39.8 million visits (58.1 percent) involved no therapeutic services other than medication, and a significantly smaller 24.3 million visits (35.5 percent), involved one such service. Two nonmedication therapeutic services were ordered or provided in even fewer visits (3.9 million, or 5.7 percent), and only 0.5 million visits (0.7 percent) involved three or more of these services. Each survey averaged 0.6 nonmedication therapeutic services per visit.

Despite the similarity between the Complement Survey and NAMCS in the amount of therapeutic service other than medication, there were two significant differences. The Complement Survey physicians displayed a greater tendency to provide no nonmedication therapeutic services than did the NAMCS physicians; they did so in 58.1 percent of visits, compared with 52.6 percent of NAMCS visits. Similarly, a larger proportion of NAMCS visits (39.6 percent) than of Complement Survey visits (35.5 percent) involved one of these services.

The numbers and percent of visits in which specific therapeutic services other than medication were ordered or provided are also shown in table 18. Again the similarity between Com-

Table 17. Estimated number and percent distribution of drug mentions during Complement Survey and National Ambulatory Medical Care Survey (NAMCS) visits by therapeutic category: United States, 1980

Therapeutic category[1]	Drug mentions			
	Complement Survey		NAMCS	
	Number in thousands	Percent distribution	Number in thousands	Percent distribution
All therapeutic categories	72,296	100.0	679,593	100.0
Antihistamine drugs	4,977	6.9	43,939	6.5
Anti-infective agents	8,108	11.2	104,898	15.4
Antibiotics	6,791	9.4	90,081	13.3
Autonomic drugs	2,469	3.4	25,237	3.7
Cardiovascular drugs	8,619	11.9	64,463	9.5
Cardiac drugs	3,853	5.3	26,331	3.9
Hypotensive agents	2,801	3.9	22,633	3.3
Vasodilating agents	1,861	2.6	14,646	2.2
Central nervous system drugs	12,467	17.2	110,706	16.3
Analgesics and antipyretics	6,732	9.3	57,800	8.5
Psychotherapeutic agents	2,030	2.8	16,395	2.4
Sedatives and hypnotics	2,857	4.0	25,036	3.7
Electrolytic, caloric, and water balance	5,808	8.0	51,956	7.6
Diuretics	4,703	6.5	42,834	6.3
Expectorants and cough preparations	2,267	3.1	18,899	2.8
Eye, ear, nose, and throat preparations	2,256	3.1	26,076	3.8
Gastrointestinal drugs	*3,832	5.3	24,140	3.6
Hormones and synthetic substances	4,869	6.7	55,843	8.2
Adrenals	1,787	2.5	18,312	2.7
Serums, toxoids, and vaccines	*2,007	2.8	23,711	3.5
Skin and mucous membrane preparations	4,071	5.6	55,188	8.1
Spasmolytic agents	1,243	1.7	11,541	1.7
Vitamins	*4,482	*6.2	24,244	3.6
Other therapeutic agents, pharmaceutic aids, and devices[2]	3,356	4.6	28,733	4.2
Therapeutic category undetermined	*1,464	2.0	10,017	1.5

[1]Based on the pharmacologic-therapeutic classification of the American Society of Hospital Pharmacists; selected categories reproduced with the permission of the Society (see appendix IV).
[2]Includes antineoplastic agents; blood derivatives; blood formation and coagulation; diagnostic agents; enzymes; gold compounds, heavy metal antagonists; local anesthetics; oxytocics; radioactive agents; unclassified therapeutic agents; pharmaceutic aids; and devices.

Table 18. Estimated number and percent distribution of office visits to Complement Survey and National Ambulatory Medical Care Survey (NAMCS) physicians by number of nonmedication therapeutic services ordered or provided and type of nonmedication therapy ordered or provided: United States, 1980

Number of nonmedication therapeutic services and type of nonmedication therapy	Office visits			
	Complement Survey		NAMCS	
	Number in thousands	Percent distribution	Number in thousands	Percent distribution
All visits	68,556	100.0	575,745	100.0
Number of nonmedication therapeutic services				
0	39,809	58.1	303,017	52.6
1	24,328	35.5	227,929	39.6
2	3,934	5.7	38,255	6.6
3 or more	*485	*0.7	6,543	1.1
Type of nonmedication therapy[1]				
None	39,809	58.1	303,017	52.6
Physiotherapy	1,790	2.6	29,281	5.1
Office surgery	4,088	6.0	43,089	7.5
Family planning	889	1.3	12,828	2.2
Psychotherapy, therapeutic listening	3,897	5.7	29,024	5.0
Diet counseling	4,852	7.1	48,886	8.5
Family, social counseling	1,302	1.9	13,148	2.3
Medical counseling	13,328	19.4	133,425	23.2
Other	3,546	5.1	15,618	2.7

[1]Does not add to 100.0 percent because more than one nonmedication therapeutic service may have been ordered or provided during a visit.

Disposition and duration of visit	Office visits			
	Complement Survey		NAMCS	
	Number in thousands	Percent distribution	Number in thousands	Percent distribution
All visits	68,556	100.0	575,745	100.0
Disposition[1]				
No follow-up planned	7,062	10.3	67,442	11.7
Return at specified time...	38,731	56.5	346,414	60.2
Return if needed..	12,705	18.5	131,404	22.8
Telephone follow-up planned	1,749	2.6	19,955	3.5
Referred to other physician.....................................	2,044	3.0	15,157	2.6
Returned to referring physician..............................	7,070	10.3	3,677	0.6
Admit to hospital	1,726	2.5	13,088	2.3
Other..	*158	*0.2	1,380	0.2
Duration				
0 minutes[2]	3,343	4.9	13,813	2.4
1–5 minutes...	5,304	7.7	71,894	12.5
6–10 minutes...	16,195	23.6	175,660	30.5
11–15 minutes...	19,235	28.1	157,619	27.4
16–30 minutes...	17,790	26.0	120,900	21.0
31 minutes or more	6,690	9.8	35,858	6.2

[1]Does not add to 100.0 percent because more than one disposition may have been recorded for a visit.
[2]Represents office visits in which there was no face-to-face contact between the patient and the physician.

plement Survey and NAMCS physicians is notable, as precisely the same trends appeared for both. Complement Survey physicians conducted medical counseling more frequently than any other service (13.3 million visits, or 19.4 percent). The percents of visits in which the remaining services (physiotherapy; office surgery; family planning; psychotherapy, therapeutic listening; diet counseling; family, social counseling; or other services) were ordered or provided ranged from 1.3 to 7.1.

There were some significant differences between the two surveys in the frequency with which particular services were ordered or provided. Smaller proportions of Complement Survey visits than of NAMCS visits involved physiotherapy (2.6 percent compared with 5.1 percent), family planning (1.3 percent compared with 2.2 percent), or medical counseling (19.4 percent compared with 23.2 percent), and a larger proportion involved other nonmedication therapeutic services (5.1 percent compared with 2.7 percent). These differences are substantively small, but statistically significant. A tabulation of specific nonmedication therapeutic services according to major specialty type (not presented here) shows that these differences tend to remain even when controlling for specialty type.

A comparison of patient disposition in the two surveys is displayed in table 19. In Complement Survey visits, by far the most frequent disposition was an instruction to return at a specified time, which occurred in 38.7 million visits, or 56.5 percent of all visits. This was followed by an instruction

to return if needed (12.7 million visits, or 18.5 percent), and then by an instruction to return to the referring physician and by no planning of a follow-up (7.1 million visits, or 10.3 percent, each). Except for the relatively large proportion of visits returned to the referring physician, this distribution of dispositions was quite similar to that observed for NAMCS visits.

The visits in each survey tended to fall into the same duration intervals (table 17). In the Complement Survey, the three most common time intervals for visits were 11–15 minutes (19.2 million visits, or 28.1 percent of all visits), 16–30 minutes (17.8 million visits, or 26.0 percent), and 6–10 minutes (16.2 million visits, or 23.6 percent). Although the differences in the frequencies and percents among these intervals were not significant, all were significantly greater than the corresponding statistics for the extreme time intervals.

The average duration of all Complement Survey visits was 17.9 minutes; it was 18.7 minutes with visits to radiologists and anesthesiologists excluded. In contrast, the average NAMCS visit lasted 15.4 minutes. A comparison of the average duration for each major specialty type (with radiologists and anesthesiologists excluded from the Complement Survey data) showed that the duration was consistently higher for the Complement Survey visits. Consequently, the overall difference cannot be attributed to the survey differences in physician specialty distribution.

References

[1]National Center for Health Statistics, D. Schneider, L. Appleton, and T. McLemore: A reason for visit classification for ambulatory care. *Vital and Health Statistics*. Series 2, No. 78. DHEW Pub. No. (PHS) 79–1352. Public Health Service. Washington. U.S. Government Printing Office, Feb. 1979.

[2]U.S. Public Health Service and Health Care Financing Administration: *International Classification of Diseases, 9th Revision, Clinical Modification*. DHHS Pub. No. (PHS) 80–1260. Public Health Service. Washington. U.S. Government Printing Office, Sept. 1980.

[3]National Center for Health Statistics, H. Koch: Drug utilization in office-based practice, a summary of findings. *Vital and Health Statistics*. Series 13, No. 65. DHHS Pub. No. (PHS) 83–1726. Public Health Service. Washington. U.S. Government Printing Office, Mar. 1982.

[4]National Center for Health Statistics, H. Koch and W. H. Campbell: The collection and processing of drug information: National Ambulatory Medical Care Survey, United States, 1980. *Vital and Health Statistics*. Series 2, No. 90. DHHS Pub. No. (PHS) 82–1364. Public Health Service. Washington. U.S. Government Printing Office, Mar. 1982.

[5]National Center for Health Statistics, P. J. McCarthy: Replication, an approach to the analysis of data from complex surveys. *Vital and Health Statistics*. Series 2, No. 14. DHEW Pub. No. (HSM) 73–1269. Health Services and Mental Health Administration. Washington. U.S. Government Printing Office, Apr. 1966.

[6]National Center for Health Statistics, P. J. McCarthy: Pseudoreplication, further evaluation and application of the balanced half-sample technique. *Vital and Health Statistics*. Series 2, No. 31. DHEW Pub. No. (HSM) 73–1270. Health Services and Mental Health Administration. Washington. U.S. Government Printing Office, Jan. 1969.

Appendixes

Contents

List of appendix tables

Appendix I
Technical notes

Background

This report is based on data collected in the National Ambulatory Medical Care Complement Survey. The Complement Survey was conducted during 1980 by the Division of Health Care Statistics of the National Center for Health Statistics (NCHS) to supplement data collected through the National Ambulatory Medical Care Survey (NAMCS). The NAMCS was designed to provide estimates of office visits to non-Federal, office-based, patient care physicians in the conterminous United States. Not included in the NAMCS universe were visits to physicians who were federally employed, hospital-based, or principally engaged in research, teaching, administration, or other nonpatient care activity. The purpose of the Complement Survey was to estimate the number and characteristics of office visits made to physicians who had previously been excluded from the NAMCS.

The Complement Survey was conducted in two phases. In the first phase, a sample of non-office-based physicians was screened by telephone to identify physicians in various professional activity groups who provided some office-based care. In the second phase, sample office visit data were collected from those physicians who provided some office-based care to ambulatory patients. The design and methodology of the National Ambulatory Medical Care Complement Survey are presented in the following sections. The statistical design and methodology of the 1980 National Ambulatory Medical Care Survey is described in another NCHS report.[3]

Statistical design

Scope of the survey

The target population of the Complement Survey included office visits made within the conterminous United States by ambulatory patients to physicians who were federally employed; hospital-based; principally engaged in teaching, research, administration, or other nonpatient care activity; or specialized in anesthesiology, pathology, or radiology. Telephone contacts and nonoffice visits were excluded from the Complement Survey.

Sample design

The Complement Survey utilized a three-stage survey design that involved probability samples of primary sampling

NOTE: A list of references follows the text.

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 of the University of Chicago, the organization responsible for the NAMCS and the Complement Survey field and data processing operations under contract to NCHS. A PSU was a county, a group of adjacent counties, or a standard metropolitan statistical area. A modified probability-proportional-to-size procedure using separate sampling frames for standard metropolitan statistical areas 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 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 physicians, selected from the masterfiles maintained by the American Medical Association (AMA) and the American Osteopathic Association (AOA) as of December 31, 1979, who were classified in any of the following categories:

- Federally employed.
- Hospital-based.
- Principally engaged in teaching, research, or administration.
- Inactive, retired, or unclassified.
- In the specialties of anesthesiology, pathology, clinical pathology, forensic pathology, radiology, diagnostic radiology, pediatric radiology, or therapeutic radiology.

The Complement Survey physician universe included 220,109 doctors of medicine and 5,669 doctors of osteopathy. When combined with the 1980 NAMCS physician universe, the two universes included all physicians in the conterminous United States on the AMA and AOA masterfiles.

Within each PSU, all eligible physicians were sorted into 11 professional groups: federally employed, hospital-based, teaching, research, administration, inactive, retired, unclassified, anesthesiologists, pathologists, and radiologists. 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. A total of 5,018 physicians was thus selected and randomly divided into 10 groups of approximately equal size.

Sample physicians were sequentially screened by telephone to identify about 400 physicians eligible for the Complement Survey. A total of 2,008 physicians, 4 of the 10 groups, were actually included in the telephone screening sample. Twenty-

Table I. Distribution of physicians in the Complement Survey sample by major professional group: United States, 1980

Professional group	Gross telephone screening sample	Telephone screening refusals	Net telephone screening sample	Out of scope[1]	Complement Survey sample	Nonrespondents	Respondents
Total	2,008	21	1,987	1,659	328	45	283
Federal	166	3	163	143	20	3	17
Hospital-based patient care..............	848	7	841	721	120	22	98
Research, teaching, and administration	287	4	283	224	59	8	51
Inactive, unclassified, and other	481	5	476	381	95	11	84
Anesthesiologists, pathologists, and radiologists...........................	226	2	224	190	34	1	33

[1]Out of scope indicates physician does not provide office-based care to ambulatory patients.

one physicians refused to be interviewed, resulting in a net sample of 1,987 physicians. Of these physicians, 18 were deceased, 148 were retired, 32 had moved out of the United States, 232 could not be located, and 48 were not interviewed for other reasons. Based on the telephone interview, an additional 1,118 physicians were ruled out of scope for the Complement Survey. The result was 391 physicians who were tentatively identified as in scope for the study. At the induction interview conducted prior to the physician's assigned reporting period, a final determination of the physician's eligibility was made. An additional 63 physicians were ruled out of scope at this point, resulting in a final physician sample of 328 physicians for the Complement Survey. Of these physicians, 283 (86 percent) agreed to submit visit information. Of the participating physicians, 38 saw no patients during their assigned reporting period because of vacation, illness, or other reasons for being temporarily out of office-based practice. The physician sample size and response data by major professional activity group are shown in table I.

The third stage was the selection of patient visits within the annual office-based practices of the sample physicians. This stage involved two steps. First, the 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 office 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 II. Physicians participating in the Complement Survey completed 5,400 usable Patient Record forms.

Data collection and processing

Field procedures

The telephone screening interview involved mail and telephone contact with the sample physicians. Initially, sample physicians were sent an introductory letter from the Director of NCHS (see appendix II). Approximately 1 week later a field representative telephoned and interviewed the sample physician using the Telephone Screening Assignment form in appendix II. The ultimate purpose of the interview was to identify physi-

cians who saw ambulatory patients in an office setting. Physicians tentatively identified as seeing patients in an office setting were randomly assigned a weekly reporting period, contacted, and inducted in the same manner as sample physicians in NAMCS. These procedures are described below.

Initially, each sample physician was sent an introductory letter from the Director of NCHS (see appendix II). When appropriate, a letter from the physician's specialty organization endorsing the survey and urging his or her 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 the study briefly and arrange an appointment for a personal interview. Physicians who did not initially respond were usually recontacted via telephone or special explanatory letter and asked to reconsider participation in the study.

During the personal interview the field representative made a final determination of the physician's eligibility for the study, obtained his or her 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 insure 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 the Complement Survey.

Data collection

Data collection within the physician's office was conducted by the physician, assisted by his office staff when possible. Two data collection forms were used by the physician: the Patient Log and the Patient Record (see appendix II). The

Patient Log, a sequential listing of patients seen in the physician's office during the 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 rate was 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 each day recorded data for all visits; those 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 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. The field and manual editing procedures proved quite efficient, reducing item nonresponse rates to 2 percent or less for most data items.

Information contained in item 6 (Patient's complaints, symptoms, or other reason for this visit) of the Patient Record form was coded according to "A reason for visit classification for ambulatory care."[1] Diagnostic information (item 9 of the Patient Record form) was coded according to the *International Classification of Diseases, 9th Revision, Clinical Modification*.[2] 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 Patient Record 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 medical coding operation were 1.9 percent for item 6 and 2.8 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 1.8 percent for item 6 and 2.5 percent for item 9.

The 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 drug data processing procedures is

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contained in *Vital and Health Statistics*, Series 2, No. 90.[4] 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 insure 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

Estimation procedures were developed for each phase of the Complement Survey. In the first phase, estimation procedures were developed to provide national estimates of physicians. In the second phase, estimation procedures, similar to those used in the 1980 NAMCS, were developed to provide national estimates of office visits. For estimation purposes, the original 11 professional groups were recombined into 5 groups as follows: (1) Federally employed; (2) hospital-based; (3) teaching, research, and administration; (4) inactive, retired, unclassified, and other; (5) anesthesiologists, pathologists, and radiologists.

Physician estimation

Statistics from the first phase of the Complement Survey were derived from a two-stage estimation procedure that produced national estimates and has three basic components. First, data were inflated by the reciprocals of the two probabilities of selection: the probability of selecting the PSU and the probability of selecting the physician within the PSU. Second, the data were adjusted to account for nonresponding physicians by imputing to nonresponding physicians the characteristics of similar responding physicians. For this purpose, physicians were judged similar if they were in the same PSU and major professional group. An excess nonresponse adjustment was added to adjust for those PSU and professional group combinations with sample physicians, but no responding physicians. Third, a poststratification adjustment to fixed totals was made within each of the five major professional groups. This ratio adjustment was a multiplication factor that had as its numerator the number of physicians in the universe in each professional group and as its denominator the estimated number of physicians in that particular group. The numerator was based on figures obtained from the AMA and AOA, and the denominator was based on data from the sample.

Visit estimation

Statistics from the second phase of the Complement Survey were derived by a multistage estimation procedure that produces essentially unbiased national estimates and has three basic components: (1) inflation by reciprocals of the probabil-

ities of selection, (2) adjustment for nonresponse, and (3) a ratio adjustment to fixed totals. Each component is described briefly 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 Patient Record forms completed divided by the number of office visits during the physician's assigned reporting week. All weekly estimates were inflated by a factor of 52 to derive annual estimates.
- *Adjustment for nonresponse—*Estimates from Complement Survey data were adjusted to account for sample physicians who were in scope, but did not participate in the study. This adjustment was calculated to minimize the impact of response on final estimates by imputing to non-responding physicians the practice characteristics of similar responding physicians. For this purpose, physicians were judged similar if they were in the same PSU and professional group.
- *Ratio adjustment—*A poststratification adjustment was made within each of five major professional groups. The ratio adjustment was a multiplication factor that had as its numerator the number of physicians in the universe in each professional group and as its denominator the estimated number of physicians in that particular 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 or incomplete response. The magnitude of the nonsampling errors cannot be computed. However, these errors were kept to a minimum by procedures built into the operation of the survey. 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 samples, they differ somewhat from the figures that would be obtained if complete censuses had been taken using the same forms, definitions, instructions, and procedures. However, the probability design of the Complement Survey and 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 2½ 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 separately for each survey using the method of half-sample replication. This method yields overall variability through observation of variability among random subsamples of the total sample. Descriptions of the development and evaluation of the replication technique for error estimation have been published.[5,6]

Approximate relative standard errors have been calculated for three types of estimate from the Complement Survey: (1) estimates of physicians; (2) estimates of office visits; and (3) estimates of drug mentions. They also were calculated for the latter two types of estimate obtained from NAMCS. Procedures for calculating approximate relative standard errors for aggregate and percent estimates are presented in the following paragraphs. To derive error estimates that would be applicable to a wide variety of statistics and that could be prepared at moderate cost, several approximations were required. As a result, the relative standard errors shown in this appendix should be interpreted as approximate rather than exact for any specific estimate.

Complement Survey estimates of aggregates

Approximate relative standard errors (in percent) for aggregate statistics may be calculated using the following formulas in which x is the aggregate estimate of interest in thousands. For physician estimates,

$$RSE(x) = \sqrt{0.0007789 + \frac{123.1221}{x}} \cdot 100.0$$

For visit estimates,

$$RSE(x) = \sqrt{0.0142323 + \frac{51.88312}{x}} \cdot 100.0$$

The approximate relative standard errors for aggregate estimates of drug mentions are presented in table II.

Table II. Approximate relative standard errors of estimated numbers of drug mentions: National Ambulatory Medical Care Complement Survey, 1980

Estimated number of drug mentions in thousands	Relative standard error
	Percent
500.	48.9
1,000.	36.9
2,000.	29.1
5,000.	23.2
10,000.	20.9
20,000.	19.6
72,000.	18.6

EXAMPLE OF USE OF TABLE: An aggregate estimate of 8,000,000 drug mentions has a relative standard error of 21.8 percent or a standard error of 1,744,000 visits (21.8 percent of 8,000,000 drug mentions).

NAMCS estimates of aggregates

Approximate relative standard errors (in percent) may be calculated using the following formulas where x is the aggregate estimate of interest in thousands. For visit estimates,

$$RSE(x) = \sqrt{0.00164987 + \frac{36.36433}{x}} \cdot 100.0$$

For drug mention estimates,

$$RSE(x) = \sqrt{0.00316979 + \frac{71.26431}{x}} \cdot 100.0$$

Complement Survey and NAMCS estimates of percents

Approximate relative standard errors (in percent) for estimates of percents may be calculated as follows: From the appropriate source, obtain the relative standard error of the numerator and denominator of the percent; 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. Alternatively, relative standard errors (in percent) for percents may be calculated using the following formulas where p is the proportion of interest and x is the base of the percent in thousands. For Complement Survey physician percents,

$$RSE(p) = \sqrt{\frac{123.1221 \cdot (1 - p)}{p \cdot x}} \cdot 100.0$$

For Complement Survey visit percents,

$$RSE(p) = \sqrt{\frac{51.88312 \cdot (1 - p)}{p \cdot x}} \cdot 100.0$$

For NAMCS visit percents,

$$RSE(p) = \sqrt{\frac{36.36433 \cdot (1 - p)}{p \cdot x}} \cdot 100.0$$

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 U.S. population or one or more of the age-sex-race groups of the total population are assumed to be equivalent to the previously provided relative standard error of the numerator.

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, but 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 Bonferroni Test for multiple comparisons (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.

Rounding of numbers

Visit 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.

Appendix II
Survey instruments

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 National Center for Health Statistics, as part
of its continuing program to provide information on
the health status of the American people, is conducting
a National Ambulatory Medical Care Survey (NAMCS).

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 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 spe-
cialty 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

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
NATIONAL CENTER FOR HEALTH STATISTICS
HYATTSVILLE, MARYLAND 20782

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
 Obstetricians and
 Gynecologists

American College
 of Physicians

American College of
 Preventive Medicine

American Osteopathic
 Association

American Proctologic
 Society

American Psychiatric
 Association

American Society of
 Internal Medicine

American Society of
 Plastic and Reconstructive
 Surgeons, Inc.

American Urologic
 Association

Association of American
 Medical Colleges

National Medical
 Association

Dear Doctor:

The National Center for Health Statistics, as part of its continuing program to provide information on the health status of the American people, is conducting the National Ambulatory Medical Care Survey (NAMCS). The purpose of the NAMCS is to collect information about ambulatory patients, their problems, and the resources used for their care. The resulting statistics help the medical community plan for more effective health services, determine health manpower requirements, and improve medical education.
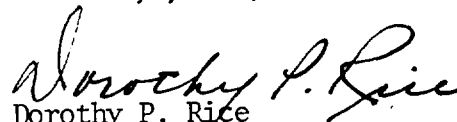
In an effort to provide information about office-based ambulatory care, we are contacting a random sample of physicians, including those engaged in office-based practice as well as those engaged in other activities. As one of the physicians selected in our national sample, your assistance is essential to the success of the study.

The NAMCS is authorized by the Health Services Research, Health Statistics and Health Care Technology Act of 1978 (Public Law 95-623). It is a voluntary study, and there are no penalties for declining to participate. All information collected in the study will be held in confidence and will be used only to prepare statistical summaries. Information will not be released that will identify an individual or a physician's practice.

Within a few days, a survey representative from the National Opinion Research Center will telephone to ask you a few questions concerning your provision of office-based ambulatory care. The questionnaire is very brief and should take only a few minutes of your time.

We greatly appreciate and thank you for your cooperation.

Sincerely yours,

Dorothy P. Rice
Director

26

01-05/

(OFFICE USE ONLY)

NORC CASE #: ☐☐☐
☐☐☐☐☐
(Intv. Name)

FINAL DISP. CODE: ☐☐☐   07-09/

Phy. Business Telephone: ( ) _____
10-19/

Phy. Home Telephone: ( ) _____
20-29/

IF ADDRESS ON LABEL IS CORRECT, CHECK BOX ☐.
IF NOT, ASK: What is your correct professional
address?

Another Telephone #: ( ) _____
30-39/

TIME ZONE:
East 1
Central ... 2
Mountain .. 3
Pacific ... 4

_____ (Street Address)   (City)   (State)   (Zip)

40-69/   BEGIN DECK 02   07-26/   27-28/   29-33/

RECORD OF CALLS

Day of Week	Month	Date	Time	Disposition	Comments	Interviewer Int'l	ID #
Mo 1 / Tu 2 Fr 5 / We 3 Sa 6 / Th 4 Su 7	34-35/ ☐☐	36-37/ ☐☐	38-41/ ☐☐☐☐ AM 1 PM 2	42-44/ ☐☐☐			☐☐
Mo 1 / Tu 2 Fr 5 / We 3 Sa 6 / Th 4 Su 7	45-46/ ☐☐	47-48/ ☐☐	49-52/ ☐☐☐☐ AM 1 PM 2	53-55/ ☐☐☐			☐☐
Mo 1 / Tu 2 Fr 5 / We 3 Sa 6 / Th 4 Su 7	56-57/ ☐☐	58-59/ ☐☐	60-63/ ☐☐☐☐ AM 1 PM 2	64-66/ ☐☐☐			☐☐
Mo 1 / Tu 2 Fr 5 / We 3 Sa 6 / Th 4 Su 7	07-08/ ☐☐	09-10/ ☐☐	11-14/ ☐☐☐☐ AM 1 PM 2	15-17/ ☐☐☐			☐☐
Mo 1 / Tu 2 Fr 5 / We 3 Sa 6 / Th 4 Su 7	18-19/ ☐☐	20-21/ ☐☐	22-25/ ☐☐☐☐ AM 1 PM 2	26-28/ ☐☐☐			☐☐

BEGIN DK 03

PENDING DISPOSITION CODES:

Call Back .... CAB
Appointment (SPECIFY DATE AND TIME)
_____ APT
No Answer .... NAN
Busy Signal .... BUS
Phy. Needs Tracing .... NTR
Phy. Temporarily Unavailable
(SPECIFY DATE AVAILABLE) _____ TUN
Temporary Refusal/Breakoff .... TRB
Temporary Other (SPECIFY)
_____ TOT

FINAL DISPOSITION CODES:

Out of Scope .... OUS
Deceased .... DEC
Retired .... RET
Moved out of USA .... MUS
Moved/Can't Locate .... MCL
Refusal/Breakoff .... FRB ⎫ Supr.
Other (SPECIFY) ⎬ only
_____ FOS ⎭

Completed Physician In Scope ...... CIS

RECORD OF CALLS

Day of Week	Month	Date	Time	Disposition	Comments	Interviewer Int'l	ID #
Mo 1 Tu 2 Fr 5 We 3 Sa 6 Th 4 Su 7	29-30/	31-32/	33-36/ AM 1 PM 2	37-39/			
Mo 1 Tu 2 Fr 5 We 3 Sa 6 Th 4 Su 7	40-41/	42-43/	44-47/ AM 1 PM 2	48-50/			
Mo 1 Tu 2 Fr 5 We 3 Sa 6 Th 4 Su 7	51-52/	53-54/	55-58/ AM 1 PM 2	59-61/			
Mo 1 Tu 2 Fr 5 We 3 Sa 6 Th 4 Su 7	62-63/	64-65/	66-69/ AM 1 PM 2	70-72/			
Mo 1 Tu 2 Fr 5 We 3 Sa 6 Th 4 Su 7	07-08/	09-10/	11-14/ AM 1 PM 2	15-17/			
Mo 1 Tu 2 Fr 5 We 3 Sa 6 Th 4 Su 7	18-19/	20-21/	22-25/ AM 1 PM 2	26-28/			
Mo 1 Tu 2 Fr 5 We 3 Sa 6 Th 4 Su 7	29-30/	31-32/	33-36/ AM 1 PM 2	37-39/			
Mo 1 Tu 2 Fr 5 We 3 Sa 6 Th 4 Su 7	40-41/	42-43/	44-47/ AM 1 PM 2	48-50/			
Mo 1 Tu 2 Fr 5 We 3 Sa 6 Th 4 Su 7	51-52/	53-54/	55-58/ AM 1 PM 2	59-61/			
Mo 1 Tu 2 Fr 5 We 3 Sa 6 Th 4 Su 7	62-63/	64-65/	66-69/ AM 1 PM 2	70-72/			

BEGIN DK 04 (at row beginning 07-08/)

PENDING DISPOSITION CODES:

Call Back .... CAB
Appointment (SPECIFY DATE AND TIME)
_____ APT
No Answer .... NAN
Busy Signal .... BUS
Phy. Needs Tracing .... NTR
Phy. Temporarily Unavailable
   (SPECIFY DATE AVAILABLE) _____ TUN
Temporary Refusal/Breakoff .... TRB
Temporary Other (SPECIFY)
_____ TOT

FINAL DISPOSITION CODES:

Out of Scope .... OUS
Deceased .... DEC
Retired .... RET
Moved out of USA .... MUS
Moved/Can't Locate .... MCL
Refusal/Breakoff .... FRB ⎫ Supr.
Other (SPECIFY)   ⎬ only
_____ FOS ⎭

Completed Physician In Scope ...... CIS

<u>TELEPHONE SCREENING FORM</u>

Hello, Dr. (NAME). This is (YOUR NAME) of the National Opinion Research Center (University of Chicago).

I'm representing the National Center for Health Statistics on the Ambulatory Medical Care Survey. You have probably received a letter from Dorothy P. Rice, director of the Center, telling you about the survey.

IF DOCTOR REMEMBERS LETTER, GO TO Q. 1

IF DOCTOR DOES NOT REMEMBER LETTER, EXPLAIN:

> The National Ambulatory Medical Care Survey collects data on office-based ambulatory care. It is endorsed by the medical specialty organizations and is the source of many medical reports. I would like to ask you a few questions about the extent of your own involvement in the provision of office-based care. The questions are very brief and should take only a few minutes of your time.

1. The first question concerns your major professional activity--that is, the activity in which you spend the majority of your professional time. Which one of the following categories best describes your present major professional activity--patient care, research, teaching, administration, or something else? CIRCLE ONE CODE.

    Patient care ...... (SKIP TO Q. 3) 1   07/

    Research .... (GO TO Q. 2) 2

    Teaching .... (GO TO Q. 2) 3

    Administration ..... (GO TO Q. 2) 4

    Something else (SPECIFY AND GO TO Q. 2)

    _____ 5

---

2. During your normal working week, do you provide <u>any</u> direct patient care?

    Yes .... (GO TO Q. 3) 1   08/

    No .... (ASK A) 2

    A. <u>IF NO</u>: Doctor, for this survey, direct patient care is defined as seeing patients. Do you provide <u>any</u> direct care during your normal working week, under <u>this</u> definition?

    Yes .... (GO TO Q.3) 1   09/

    No .. (GO TO TERMINATION
              STATEMENT, P. 3) 2

---

3. Are you currently in a residency training program?

    Yes 1   10/

    No 2

4. Are you currently employed by the federal government?

Yes .... (ASK A) 1   11/

No .... (GO TO Q. 5) 2

    A. IF YES: In addition to your government practice, do you routinely see any private patients?

Yes ...... (READ STATEMENT IN B) 1   12/

No ......(GO TO TERMINATION STATEMENT BELOW) ... 2

       B. IF YES TO A: All of the questions that follow will be concerned with these private patients .. (ASK Q. 5)

---

5. Doctor, we are concerned in this study with ambulatory patients--that is, patients who are not admitted to a hospital, nursing home, or other institution and are not bedridden. With this definition in mind, do you provide care to any ambulatory patients?

Yes .... (GO TO Q. 6) 1   13/

No ....(ASK A) 2

    A. IF NO: Then all of your (private) patients are either hospitalized or bedridden in an institution?

Yes .... (GO TO TERMINATION STATEMENT BELOW) .. 1   14/

No ..... (EXPLAIN BELOW, THEN GO TO Q. 6) 2

TERMINATION STATEMENT

Thank you, Dr. (NAME), but since you do not (provide any direct patient care/see any private patients/see any ambulatory patients), our questions would not be appropriate for you. I appreciate your time and interest.

6. We are also concerned with <u>office-based</u> care, as opposed to care provided in a hospital outpatient department or emergency room. Do you routinely see <u>any</u> ambulatory patients <u>in an office</u>?

<div align="right">
Yes ..... (ASK A) 1   15/
No ...... (ASK C) 2
</div>

A. <u>IF YES</u>: Is this your <u>private</u> office?

<div align="right">
Yes ....(GO TO NEXT PAGE) .. 1   16/
No ...... (ASK B) 2
</div>

B. <u>IF NO TO A</u>: What type of office is it? RECORD DESCRIPTION UNDER 7-A BELOW, THEN CODE 7-B AND ASK 7-C.

7. A. RECORD DESCRIPTION	B. In scope?		
	Yes	No	
(1)	1	2	17/
(2)	1	2	18/
(3)	1	2	19/

B. FOR EACH LOCATION ENTERED IN A, CODE YES OR NO TO "IN SCOPE?" ABOVE

IN SCOPE (YES)	OUT OF SCOPE (NO)
Private office	Hospital emergency room
Free-standing clinic (non-hospital based)	Hospital outpatient department College or university infirmary
Groups, partnerships	Industrial outpatient facility
Kaiser, HIP, Mayo Clinic	Family planing clinic
Neighborhood Health Center	Government-operated clinic
Privately operated clinic (except family planning)	(VD, maternal & child health, etc.)

<u>IN CASE OF DOUBT, ASK</u>: Is that (clinic/facility/institution) hospital based.
                    Is that (clinic/facility/institution) government operated?
                    Is that a private (industrial/corporation/ company) facility?

C. Do you routinely see (private) ambulatory patients at any other location? IF YES, RECORD DESCRIPTION UNDER A ABOVE AND CIRCLE CODE UNDER B.

IF ALL LOCATIONS ARE OUT OF SCOPE, THANK THE DOCTOR AND TERMINATE THE INTERVIEW

IF ANY LOCATION IS IN SCOPE, ASK Q. 8, NEXT PAGE.

8. About how many ambulatory patients do you see during a typical week in your private office practice?

    Number of Patients: ☐☐☐   20-22/

---

9. Finally, doctor, what is your major specialty (including general practice)?

    Major Specialty: _____   23-25/

Thank you for your time, Dr. (NAME).

10. DATE OF INTERVIEW: ☐☐☐☐☐☐   26-31/
                        Month Day Year

11. INTERVIEWER ID #: ☐☐☐☐☐   32-36/

12. INTERVIEWER SIGNATURE: _____

13. WHO SUPPLIED THIS INFORMATION?

    DOCTOR SUPPLIED ALL 1   37/
    SOMEONE ELSE SUPPLIED ALL . 2
    BOTH 3

REFUSAL/BREAKOFF REPORT

DAY: Mo 1   38/
      Tu 2 Fr 5
      We 3 Sa 6
      Th 4 Su 7

DATE: [ ][ ]   [ ][ ]
      MONTH   DAY
      44-45/   46-47/

TIME: [ ][ ] : [ ][ ] AM 1   43/
      39-40/   41-42/   PM 2

INTERVIEWER SIGNATURE:

1. At what point did the refusal/
    breakoff occur?

    SPECIFY QUESTION #: _____
                             48-50/

4. How did you answer the reason(s)
    for refusal/breakoff?

2. Who refused?   51/

    Doctor 1
    Doctor through Nurse 2
    Nurse/Secretary (ANSWER A) 3
    Receptionist 4
    Office Manager/
      Administrator (ANSWER A) 5
    Other office staff (SPECIFY) ... 6

    _____

    A. SPECIFY NAME OF NURSE/
        SECRETARY/OFFICE MANAGER:

5. FOR SUPERVISOR USE ONLY:

    Conversion Assignment:

    Date: [ ][ ] [ ][ ]
          MONTH   DAY
          59-60/ 61-62/

    Converter's Name: _____

    Interviewer ID #: [ ][ ][ ][ ][ ]
         AND/OR   63-67/

    Letter sent: [ ][ ] [ ][ ]
                 MONTH   DAY
                 68-69/   70-71/

    No attempt to convert: [ ]   72/

3. What reasons were given for the
    refusal/breakoff? RECORD VERBATIM,
    THEN CIRCLE ALL THAT APPLY.

    Too busy 1   52/
    Doesn't like surveys 2   53/
    Negative reaction to
      HEW and government 3   54/
    Not interested 4   55/
    Concerned about
      confidentiality 5   56/
    No reason given 6   57/
    Other 7   58/

6. TELEPHONE CONVERTER ASSIGNMENT

    Record of Calls:

    Date   Time   Result
    _____
    _____
    _____

7. What is the final disposition code?

    [ ][ ][ ]
    73-75/

CONFIDENTIAL*

NORC-4284

Form Approved
OMB No. 68R1498

FOR OFFICE USE
ONLY:
(BATCH NO.)

5-6/

(LOG NO.)

7-10/

NATIONAL AMBULATORY MEDICAL CARE SURVEY
INDUCTION INTERVIEW

(Phys. ID Number)

1-4/

BEFORE STARTING INTERVIEW

1. ENTER PHYSICIAN I.D. NUMBER IN BOX TO RIGHT.

2. ENTER DATES OF ASSIGNED REPORTING WEEK IN Q. 2, P. 2.

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 all 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 . . . . (ASK A) . . . . . Y

   A. IF NO: What is your specialty (including general practice)?

   _____
   (Name of Specialty)

   11-13/

*

2. Now, doctor, this study will be concerned with the _ambulatory_ patients you will
   see in your office during the week of (READ REPORTING DATES ENTERED BELOW).

   _____/_____ (that's a   _____/_____ (that's a
   month   date   Monday) through   month   date   Sunday)

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

                                        Yes . . . .(GO TO Q. 3) . . X

                                        No . . . . (ASK A) . . . . Y

   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 _do_ 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.

    B. FOR EACH OFFICE LOCATION ENTERED IN A, CODE YES OR NO TO "IN SCOPE."

IN SCOPE (Yes)	OUT OF SCOPE (No)
Private offices	Hospital emergency rooms
Free-standing clinics	Hospital outpatient departments
(non-hospital based)	College or university infirmaries
Groups, partnerships	Industrial outpatient facilities
Kaiser, HIP, Mayo Clinic	Family planning clinics
Neighborhood Health Centers	Government-operated clinics
Privately operated clinics	(VD, maternal & child health, etc.)
(except family planning)	

IN CASE OF DOUBT, ASK: Is that (clinic/facility/institution) hospital based?

                            Is that (clinic/facility/institution) government operated?

    C. Is that all 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) _____	1	0

                      TOTAL IN-SCOPE LOCATIONS: [   ] 14/

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

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 days 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 COLUMN 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 total patients during survey week.	B. Total days in practice during week.						
A--Patient Record is to be completed for ALL patients listed on Log. 15-17/	ENTER TOTAL FROM Q. 4-A.	18/						
		1	2	3	4	5	6	7
	1- 12 PATIENTS	A	A	A	A	A	A	A
	13- 25 "	B	A	A	A	A	A	A
B--Patient Record is to be completed for every SECOND patient listed on Log.	26- 39 "	C	B	A	A	A	A	A
	40- 52 "	C	B	B	A	A	A	A
	53- 65 "	D	C	B	B	A	A	A
	66- 79 "	D	C	B	B	B	A	A
C--Patient Record is to be completed for every THIRD patient listed on Log.	80- 92 "	D	D	C	B	B	B	B
	93-105 "	D	D	C	B	B	B	B
	106-118 "	D	D	C	C	B	B	B
	119-131 "	D	D	C	C	B	B	B
	132-145 "	D	D	D	C	C	B	B
*D--Patient Record is to be completed for every FIFTH patient listed on Log.	146-158 "	D	D	D	C	C	B	B
	159-171 "	D	D	D	C	C	C	C
	172-184 "	D	D	D	C	C	C	C
	185-197 "	D	D	D	D	D	D	D
	198-210 "	D	D	D	D	D	D	D
	211+ "	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 ON NEXT LINE"	FOR OFFICE USE ONLY Number patient record forms completed.	
Letter	Number						
A							19-23/ 24-26/
B							
C							
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   12   ON CARD 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	FOLIO					No. Lines Stamped "BEGIN ON NEXT LINE"	FOR OFFICE USE ONLY: Number patient record forms completed	
	Letter	Number						
								27-31/ 32-34/
								35-39/ 40-42/
								43-47/ 48-50/

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?

Solo. . . . . (GO TO Q. 10) . . 1   52/
Partnership . . (ASK A-C) . . . 2
Group . . . . . (ASK A-C) . . . 3
_____ <--- Other (SPECIFY AND ASK A-C) . . 4

IF PARTNERSHIP, GROUP, OR OTHER:

A. Is this a prepaid group practice?   Yes . . (ASK [1]) . . . 1   53/
No 2

[1] IF YES TO A: What per cent of patients are prepaid?   _____ per cent   54-56/

B. How many other physicians are associated with you?   NUMBER OF PHYSICIANS: _____   57-59/

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. CIRCLE ONE:
All physicians in this partnership/group practice have the same specialty 1   60/

More than one specialty in this partnership/group practice . . 2

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, temporarily 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. Full-time (35 or more hours/week)	B. Part-time (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/

*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.

11. TIME INTERVIEW ENDED . . . . _____ AM
                                                       PM

12. DATE OF INTERVIEW . . . .   [| | | | |]
                                                      (Month)   (Day)   (Year)

COMMENTS:

INTERVIEWER NUMBER

INTERVIEWER'S SIGNATURE

_____

FOR OFFICE USE ONLY:

No. of Patients Seen: | | | | 59-61/

Total Days in Practice during Week: | | 62/

B№ 399115

PATIENT LOG

As each patient arrives, record name and time of visit on the log below. For the patient entered on line #2, also complete the patient record to the right.

PATIENT'S NAME	TIME OF VISIT
1	a.m.
	p.m.
2	a.m.
	p.m.

Record items 1-15 for this patient

CONTINUE LISTING PATIENTS ON NEXT PAGE

Department of Health and Human Services
Public Health Service
Office of Health Research, Statistics, and Technology
National Center for Health Statistics

B

№ 399115

PATIENT RECORD
NATIONAL AMBULATORY MEDICAL CARE SURVEY

1. DATE OF VISIT
___/___/___
Month Day Year

2. DATE OF BIRTH
___/___/___
Month Day Year

3. SEX
- 1 ☐ FEMALE
- 2 ☐ MALE

4. COLOR OR RACE
- 1 ☐ WHITE
- 2 ☐ BLACK
- 3 ☐ ASIAN/PACIFIC ISLANDER
- 4 ☐ AMERICAN INDIAN/ ALASKAN NATIVE

5. ETHNICITY
- 1 ☐ HISPANIC ORIGIN
- 2 ☐ NOT HISPANIC

6. PATIENT'S COMPLAINT(S), SYMPTOM(S), OR OTHER REASON(S) FOR THIS VISIT *[In patient's own words]*

a MOST IMPORTANT

b OTHER

7. MAJOR REASON FOR THIS VISIT *[Check one]*
- 1 ☐ ACUTE PROBLEM
- 2 ☐ CHRONIC PROBLEM, ROUTINE
- 3 ☐ CHRONIC PROBLEM, FLAREUP
- 4 ☐ POST SURGERY/POST INJURY
- 5 ☐ NON ILLNESS CARE (ROUTINE PRENATAL, GENERAL EXAM, WELL BABY, ETC.)

8. DIAGNOSTIC SERVICES THIS VISIT *[Check all ordered or provided]*
- 1 ☐ NONE
- 2 ☐ LIMITED HISTORY/EXAM
- 3 ☐ GENERAL HISTORY/EXAM
- 4 ☐ PAP TEST
- 5 ☐ CLINICAL LAB TEST
- 6 ☐ X RAY
- 7 ☐ BLOOD PRESSURE CHECK
- 8 ☐ EKG
- 9 ☐ VISION TEST
- 10 ☐ ENDOSCOPY
- 11 ☐ MENTAL STATUS EXAM
- 12 ☐ OTHER *(Specify)*

9. PHYSICIAN'S DIAGNOSES

a PRINCIPAL DIAGNOSIS/PROBLEM ASSOCIATED WITH ITEM 6a

b OTHER SIGNIFICANT CURRENT DIAGNOSES

10. HAVE YOU SEEN PATIENT BEFORE?
- 1 ☐ YES   2 ☐ NO

IF YES, FOR THE CONDITION IN ITEM 9a?
- 1 ☐ YES   2 ☐ NO

11. MEDICATION THERAPY THIS VISIT   ☐ NONE

[Using brand or generic names, record all new and continued medications ordered, injected, administered, or otherwise provided at this visit. Include immunizing and desensitizing agents]

a. FOR PRINCIPAL DIAGNOSES IN ITEM 9a.
1.
2.
3.
4.

b. FOR ALL OTHER REASONS
1.
2.
3.

12. NON-MEDICATION THERAPY *[Check all services ordered or provided this visit]*
- 1 ☐ NONE
- 2 ☐ PHYSIOTHERAPY
- 3 ☐ OFFICE SURGERY
- 4 ☐ FAMILY PLANNING
- 5 ☐ PSYCHOTHERAPY/ THERAPEUTIC LISTENING
- 6 ☐ DIET COUNSELING
- 7 ☐ FAMILY/SOCIAL COUNSELING
- 8 ☐ MEDICAL COUNSELING
- 9 ☐ OTHER *(Specify)*

13. WAS PATIENT REFERRED FOR THIS VISIT BY ANOTHER PHYSICIAN?
- 1 ☐ YES
- 2 ☐ NO

14. DISPOSITION THIS VISIT *[Check all that apply]*
- 1 ☐ NO FOLLOW-UP PLANNED
- 2 ☐ RETURN AT SPECIFIED TIME
- 3 ☐ RETURN IF NEEDED, P.R.N.
- 4 ☐ TELEPHONE FOLLOW-UP PLANNED
- 5 ☐ REFERRED TO OTHER PHYSICIAN
- 6 ☐ RETURNED TO REFERRING PHYSICIAN
- 7 ☐ ADMIT TO HOSPITAL
- 8 ☐ OTHER *(Specify)* _____

15. DURATION OF THIS VISIT *[Time actually spent with physician]*

_____ Minutes

Appendix III
Definition of terms

Because the design and execution of the Complement Survey and the National Ambulatory Medical Care Survey were similar, most definitions of terms apply to the data obtained in both surveys. The definitions that pertain to only one survey are labeled to that effect. When a term has different meanings for the two surveys, separate definitions for each survey are presented.

Terms relating to the survey

Office—Premises identified by physicians as locations of 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. Private offices located within hospitals are included.

Ambulatory patient—An individual seeking personal health services who is neither bedridden nor currently admitted to any health care institution on the premises. This report uses the term "patient" interchangeably with "ambulatory patient."

Physician—All duly licensed doctors of medicine and doctors of osteopathy:

- *Non-office-based*—Physicians classified by the American Medical Association (AMA) or the American Osteopathic Association (AOA) as principally engaged in any professional activity other than office-based patient care; federally employed; and/or specializing in anesthesiology, pathology, clinical pathology, forensic pathology, radiology, diagnostic radiology, pediatric radiology, or therapeutic radiology.
- *In scope for the Complement Survey*—Non-office-based physicians, with the following exclusions: physicians who do not see patients and physicians who see patients only in institutions (including hospitals and nursing homes), industrial clinics, family planning clinics, college or university clinics, or government-operated clinics. Also excluded are all physicians classified by the AMA or AOA as principally engaged in office-based patient care. This report uses the terms "in scope for the Complement Survey" and "eligible for participation in the Complement Survey" interchangeably.
- *Out of scope for the Complement Survey*—All physicians not judged to be in scope for the Complement Survey.
- *In scope for NAMCS*—Physicians who are classified by the AMA or AOA as principally engaged in office-based patient care and who currently see patients in private practice. Excluded are physicians who are classified by the AMA or AOA as principally engaged in any professional activity other than office-based patient care; physicians

who are classified by the AMA or AOA as federally employed, including those in military service; physicians who do not see patients; physicians who see patients only in institutions, industrial clinics, family planning clinics, college or university clinics, or government-operated clinics; and physicians who specialize in anesthesiology, pathology, clinical pathology, forensic pathology, radiology, diagnostic radiology, pediatric radiology, or therapeutic radiology. This report uses the terms "in scope for NAMCS" and "office-based physicians" interchangeably.

- *Out of scope for NAMCS*—All physicians not judged to be in scope for NAMCS.

Patients

- *In scope*—All patients seen by the physician (or a staff member acting under the supervision of the physician) in the physician's office.
- *Out of scope*—All other patients of the physician, including inpatients and outpatients seen by the physician in an institution (including a hospital, nursing home, or other extended care facility); patients seen at their homes by the physician; patients who contact and receive advice from the physician by telephone; and patients who go to the physician's office only to leave a specimen, to pick up insurance forms, to pay a bill, or to pick up medications previously prescribed by the physician.

Visit—A direct, personal exchange, at a physician's office, between an ambulatory patient seeking health care and the physician (or a staff member acting under the supervision of the physician) rendering health care services.

AMA/AOA physician specialty—The physician's principal specialty, including general practice, as listed in the AMA or AOA masterfiles. This is used with the Complement Survey physician data only.

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 AMA or AOA masterfiles. This is used with both Complement Survey and NAMCS patient visit data.

Region of practice location—The following 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.

Metropolitan status of practice location—A physician's practice is classified by its location in a metropolitan or non-metropolitan 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 at last birthday, as of the date of visit. This is calculated from the date of birth.

Race—White, Black, Asian/Pacific Islander, or American Indian/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/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. This area includes, for example, China, India, Japan, Korea, the Philippine Islands, and Samoa.
- *American Indian/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.
- *Post surgery/post injury*—A visit primarily for followup care of injuries or for care required following surgery; for example, removal of sutures or cast.
- *Non-illness care (such as routine prenatal, general, or well-baby exams)*—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/exam*—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/exam*—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.

New patient—The physician indicated in item 10 of the Patient Record form that he or she had not seen the patient before. This means that the physician had not provided care to the patient at any time in the past.

Old patient—The physician indicated in item 10 of the Patient Record form that he or she had seen the patient before; that is, that he or she had provided care to the patient at some time in the past.

New problem—The physician had not provided care in the past for the principal diagnosis recorded for the current visit. This applies to "old patients" only.

Old problem—The physician had provided care in the past for the principal diagnosis recorded for the current visit. This applies to "old patients" only.

Medication therapy—All prescription or nonprescription medications (including drugs, vitamins, hormones, vaccinations, immunizations, and desensitization agents) listed by the physician as ordered, injected, or otherwise administered or provided during the current visit. The physicians were instructed to use either brand or generic names. Also included are medications that were ordered or provided earlier and that the physician instructed or expected the patient to continue taking as of the end of the current visit. This report uses the terms "medication therapy," "medication," and "drug" interchangeably.

Drug visit—A visit during which the physician ordered or provided one or more prescription or nonprescription medications.

Non-medication therapeutic services—Physicians were instructed to check any of the following services that were 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 therapies.
- *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/therapeutic listening*—All treatments designed to produce a mental or emotional response through suggestion, persuasion, reeducation, reassurance, or sup-

port, including psychological counseling, hypnosis, psychoanalysis, and transactional therapy.
- *Diet counseling*—Instructions, recommendations, or advice regarding diet or dietary habits.
- *Family/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/social counseling are excluded.
- *Other*—Treatments or nonmedication therapies ordered or provided that are not listed or included in the preceding categories.

Referral status—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 follow-up 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 follow-up planned*—Patient was instructed to telephone the physician either on a particular day to report 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.

45

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
FORMULARY
SERVICE
CLASSIFICATION
SYSTEM

04:00 ANTIHISTAMINE DRUGS

08:00 ANTI-INFECTIVE AGENTS
08:04 Amebacides
08:08 Anthelmintics
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
08:16 Antituberculosis Agents
08:18 Antivirals
08:20 Plasmodicides
08:24 Sulfonamides
08:26 Sulfones
08:28 Treponemicides
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-
LATION
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 Coagulants
20:12.16 Hemostatics
20:40 Thrombolytic Agents

24:00 CARDIOVASCULAR DRUGS
24:04 Cardiac Drugs
24:06 Antilipemic Agents
24:08 Hypotensive 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
28:24 Sedatives and Hypnotics

36:00 DIAGNOSTIC AGENTS
36:04 Adrenocortical Insufficiency
36:08 Amyloidosis
36:12 Blood Volume
36:16 Brucellosis
36:18 Cardiac Function
36:24 Circulation Time
36:25 (Cystic Fibrosis)
36:26 Diabetes Mellitus
36:28 Diphtheria
36:30 Drug Hypersensitivity
36:32 Fungi
36:34 Gallbladder Function
36:36 Gastric Function
36:38 Intestinal Absorption
36:40 Kidney Function
36:44 Liver Function
36:48 Lymphogranuloma Venereum
36:52 Mumps
36:56 Myasthenia Gravis
36:60 Myxedema
36:61 Pancreatic Function
36:62 Phenylketonuria
36:64 Pheochromocytoma
36:66 Pituitary Function
36:68 Roentgenography
36:72 Scarlet Fever
36:76 Sweating
36:78 (Thyroid Function)
36:80 Trichinosis
36:84 Tuberculosis
36:88 Urine Contents

40:00 ELECTROLYTIC, CALORIC, AND
WATER BALANCE
40:04 Acidifying Agents
40:08 Alkalinizing Agents
40:10 Ammonia Detoxicants
40:12 Replacement Solutions
40:16 Sodium-Removing Resins
40:18 Potassium-Removing Resins
40:20 Caloric Agents
40:24 Salt and Sugar Substitutes
40:28 Diuretics
40:36 Irrigating Solutions
40:40 Uricosuric Agents

44:00 ENZYMES

48:00 EXPECTORANTS AND COUGH
PREPARATIONS

52:00 EYE, EAR, NOSE AND THROAT
PREPARATIONS
52:04 Anti-Infectives
52:04.04 Antibiotics
52:04.06 Antivirals
52:04.08 Sulfonamides
52:04.12 Misc. Anti-Infectives
52:08 Anti-Inflammatory Agents
52:10 Carbonic Anhydrase Inhibitors
52:12 Contact Lens Solutions
52:16 Local Anesthetics
52:20 Miotics
52:24 Mydriatics
52:28 Mouth Washes and Gargles
52:32 Vasoconstrictors
52:36 Unclassified Agents

56:00 GASTROINTESTINAL DRUGS
56:04 Antacids and Adsorbents
56:08 Anti-Diarrhea Agents
56:10 Antiflatulents
56:12 Cathartics and Laxatives
56:16 Digestants
56:20 Emetics and Anti-Emetics
56:24 Lipotropic Agents
56:40 Misc. GI Drugs

60:00 GOLD COMPOUNDS

64:00 HEAVY METAL ANTAGONISTS

68:00 HORMONES AND SYNTHETIC
SUBSTITUTES
68:04 Adrenals
68:08 Androgens
68:12 Contraceptives
68:16 Estrogens
68:18 Gonadotropins
68:20 Insulins and Anti-Diabetic
Agents
68.20.08 Insulins
68:24 Parathyroid
68:28 Pituitary
68:32 Progestogens
68:34 Other Corpus Luteum Hormones
68:36 Thyroid and Antithyroid

72:00 LOCAL ANESTHETICS

76:00 OXYTOCICS

78:00 RADIOACTIVE AGENTS

80:00 SERUMS, TOXOIDS AND VACCINES
80:04 Serums
80:08 Toxoids
80:12 Vaccines

84:00 SKIN AND MUCOUS MEMBRANE
PREPARATIONS
84:04 Anti-Infectives
84:04.04 Antibiotics
84:04.08 Fungicides
84:04.12 Scabicides and Pediculicides
84:04.16 Misc. Local Anti-Infectives
84:06 Anti-Inflammatory Agents
84:08 Antipruritics and Local
Anesthetics
84:12 Astringents
84:16 Cell Stimulants and Proliferants
84:20 Detergents
84:24 Emollients, Demulcents and
Protectants
84:24.04 Basic Lotions and Liniments
84:24.08 Basic Oils and Other Solvents
84:24.12 Basic Ointments and
Protectants
84:24.16 Basic Powders and Demulcents
84:28 Keratolytic Agents
84:32 Keratoplastic Agents
84:36 Miscellaneous Agents
84:50 Pigmenting & Depigmenting Agents
84:50.04 Depigmenting Agents
84:50.06 Pigmenting Agents
84:80 Sunscreen Agents

86:00 SPASMOLYTIC AGENTS

88:00 VITAMINS
88:04 Vitamin A
88:08 Vitamin B Complex
88:12 Vitamin C
88:16 Vitamin D
88:20 Vitamin E
88:24 Vitamin K Activity
88:28 Multivitamin Preparations

92:00 UNCLASSIFIED THERAPEUTIC AGENTS

94:00 (DEVICES)

96:00 (PHARMACEUTIC AIDS)

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