Data from the
NATIONAL HEALTH SURVEY

Series 13
Number 40

Office Visits for Diseases of the Circulatory System

The National Ambulatory Medical Care Survey

United States, 1975-1976

Based on data obtained from a national sample of office-based physicians, statistics are presented which describe ambulatory medical care during visits for treatment of diseases of the circulatory system. Physician utilization patterns are described in terms of patient characteristics, patient condition and management, and practice characteristics. Highlighted diagnoses include essential benign hypertension, coronary heart disease, symptomatic heart disease, cerebrovascular disease, arteriosclerosis, and selected diseases of veins.

DHEW Publication No. (PHS) 79-1791

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
Office of the Assistant Secretary for Health
National Center for Health Statistics
Hyattsville, Md. January 1979

Library of Congress Cataloging in Publication Data

Cypress, Beulah K.

Office visits for diseases of the circulatory system.

(Vital and health statistics: Series 13, Data from the National Health Survey, no. 40) (DHEW publication (PHS) 79-1791)

Includes bibliographical references.

1. Cardiovascular system—Diseases—United States—Statistics. 2. Physician services utilization—United States—Statistics. 3. Health surveys—United States. III. Series: United States. Dept. of Health, Education, and Welfare. DHEW publication (PHS) 79-1791. I. Title. II. Series: United States. National Center for Health Statistics. Vital and health statistics: Series 13, Data from the National Health Survey, Data on Health resources utilization; no. 40. [DNLM: 1. Ambulatory care—United States—Statistics. 2. Cardiovascular diseases—Therapy—United States—Statistics. W2 A N148vm no. 40]

RA407.3.A349 no. 40 [RA645.C34] 362.1'1'0973s

ISBN 0-8406-0153-0 [614.5'91'0973] 78-31501

NATIONAL CENTER FOR HEALTH STATISTICS

DOROTHY P. RICE, *Director*

ROBERT A. ISRAEL, *Deputy Director*
JACOB J. FELDMAN, Ph.D., *Associate Director for Analysis*
GAIL F. FISHER, Ph.D., *Associate Director for the Cooperative Health Statistics System*
ELIJAH L. WHITE, *Associate Director for Data Systems*
JAMES T. BAIRD, JR., Ph.D., *Associate Director for International Statistics*
ROBERT C. HUBER, *Associate Director for Management*
MONROE G. SIRKEN, Ph.D., *Associate Director for Mathematical Statistics*
PETER L. HURLEY, *Associate Director for Operations*
JAMES M. ROBEY, Ph.D., *Associate Director for Program Development*
PAUL E. LEAVERTON, Ph.D., *Associate Director for Research*
ALICE HAYWOOD, *Information Officer*

DIVISION OF HEALTH RESOURCES UTILIZATION STATISTICS

SIEGFRIED A. HOERMANN, *Director*
JAMES E. DELOZIER, *Chief, Ambulatory Care Statistics Branch*
MANOOCHEHR K. NOZARY, *Chief, Technical Services Branch*
STEWART C. RICE, *Chief, Family Planning Statistics Branch*
JOAN F. VAN NOSTRAND, *Chief, Long-Term Care Statistics Branch*

Vital and Health Statistics-Series 13-No. 40

DHEW Publication No. (PHS) 79-1791
Library of Congress Catalog Card Number 78-31501

CONTENTS

Introduction 1
Highlights 1
Background 2
Scope of the Survey 2
Source and Limitation of the Data 3

Major ICDA Group—Diseases of the Circulatory System 3
Patient Characteristics 4
Patient Condition and Management 4
Practice Characteristics 5

Selected Diseases of the Circulatory System 5
Patient Characteristics 6
Practice Characteristics 10
Patient Condition and Management 11
Diseases of the Circulatory System As Second- or Third-Listed Diagnoses 12
Diagnostic Concomitance 13
Patients' Principal Problem, Complaint, or Symptom 14
Visit Status and Seriousness of the Problem 16
Duration of Visit 18
Disposition of Visit 19
Referral 20
Diagnostic-Therapeutic Services 20

References 28

List of Detailed Tables 30

Appendixes
I. Technical Notes 39
II. Definition of Certain Terms Used in This Report 47
III. Survey Instruments 51

LIST OF TEXT FIGURES

1. Percent distribution of office visits for diseases of the circulatory system, by specialty visited: United States, 1975-76 5

2. Average annual rate of office visits for selected diseases of the circulatory system, by sex of patient: United States, 1975-76 7

3. Average annual rate of office visits for selected diseases of the circulatory system, by race of patient: United States, 1975-76 8

4. Average annual rate of office visits for essential benign hypertension, by race, sex, and age of patient: United States, 1975-76 9

5. Average annual rate of office visits for coronary heart disease, by sex and age of patient: United States, 1975-76 9

6. Average annual rate of office visits by females for essential benign hypertension and coronary heart disease, by age of patient: United States, 1975-76 10

7. Average annual rate of office visits by males for essential benign hypertension and coronary heart disease, by age of patient: United States, 1975-76 10

8. Percent of office visits that included blood pressure measurement in the presence and absence of hypertension, by visit age: United States, 1975-76 26

LIST OF TEXT TABLES

A. Number and percent of office visits for all diagnostic classes and number and percent for diseases of the circulatory system, by sex, race, and age of patient: United States, 1975-76 4

B. Number and percent distribution of office visits for diseases of the circulatory system and for selected principal diagnoses: United States, 1975-76 6

C. Number, percent distribution, and average annual rate of office visits for essential benign hypertension (401), by most frequently visited specialties and sex and age of patient: United States, 1975-76 11

D. Number, percent distribution, and average annual rate of office visits for coronary heart disease (410-413), by most frequently visited specialties and sex and age of patient: United States, 1975-76 11

E. Number and percent of office visits for selected diseases of the circulatory system listed as second or third diagnoses: United States, 1975-76 12

F. Number and percent of office visits for essential benign hypertension (401) listed as first, second, or third diagnosis, by other most frequent diagnoses: United States, 1975-76 13

G. Number and percent of office visits for coronary heart disease (410-413) listed as first, second, or third diagnosis, by other most frequent diagnoses: United States, 1975-76 14

H. Number and percent distribution of office visits for essential benign hypertension (401) by visit status, seriousness of problem, and disposition of visit, according to sex and age of patient: United States, 1975-76 16

J. Number and percent distribution of office visits for coronary heart disease (410-413) by visit status, seriousness of problem, and disposition of visit, according to sex and age of patient: United States, 1975-76 17

K. Number and percent distribution of office visits for essential benign hypertension (401) by seriousness of problem, according to visit status: United States, 1975-76 18

L. Number and percent distribution of office visits for coronary heart disease (410-413) by seriousness of problem, according to visit status: United States, 1975-76 18

M. Percent of office visits for essential benign hypertension (401) and coronary heart disease (410-413), by disposition of visit and seriousness of problem: United States, 1975-76 20

N. Percent distribution of office visits for diseases of the circulatory system by number of types of diagnostic and therapeutic services ordered or provided, according to selected principal diagnoses: United States, 1975-76 21

O. Number and percent of office visits for selected diseases of the circulatory system, by diagnostic and therapeutic services ordered or provided: United States, 1975-76 22

P. Number and percent of office visits for selected diseases of the circulatory system, by most frequent diagnostic and therapeutic services ordered or provided: United States, 1975-76 22

Q. Number and percent of office visits for essential benign hypertension (401), by visit status, seriousness of problem, and diagnostic and therapeutic services ordered or provided: United States, 1975-76 23

R. Number and percent of office visits for coronary heart disease (410-413) by visit status, seriousness of problem, and diagnostic and therapeutic services ordered or provided: United States, 1975-76 24

S. Number and percent of office visits for essential benign hypertension (401), by sex and age of patient and diagnostic and therapeutic services ordered or provided: United States, 1975-76 24

T. Number and percent of office visits for coronary heart disease (410-413), by sex and age of patient and diagnostic and therapeutic services ordered or provided: United States, 1975-76 25

U. Percent of office visits by selected diagnostic and therapeutic services ordered or provided in the presence and absence of selected principal diagnoses: United States, 1975-76 25

SYMBOLS

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

OFFICE VISITS FOR DISEASES OF THE CIRCULATORY SYSTEM

Beulah K. Cypress, Ph.D., Division of Health Resources Utilization Statistics

INTRODUCTION

This report presents national estimates of 1975 and 1976 visits to office-based physicians in the conterminous United States, in which physicians rendered diagnoses in the category "diseases of the circulatory system."

HIGHLIGHTS

In 1975-76 patients made 110.6 million visits to office-based physicians for treatment of diseases of the circulatory system. A principal diagnosis of essential benign hypertension was assigned to 42 percent of such visits. Chronic ischemic heart disease caused 24 percent; symptomatic heart disease, 6 percent; cerebrovascular disease, 4 percent; diseases of arteries, arterioles, and capillaries, 4 percent; diseases of veins and lymphatics, 8 percent.

Seven of eight visits for essential benign hypertension were made by white persons. In 5 of 8 visits the problem was presented by a female. The median visit age for females was 62.0 years; for males, 57.6 years. When chronic ischemic heart disease was the diagnosis, the median visit age for females was 70.5 years; that of males was 64.1 years. Males aged 35 to 74 years visited physicians at a higher rate than females did for care of ischemic heart disease. However, visit rates of females exceeded those of males for essential benign hypertension.

Seven in ten visits for cerebrovascular disease were made by patients 65 years and over. Patients 75 years and older represented the highest proportion (39 percent) of visits for that condition, but visits by patients 45 years and under were rare (3 percent). Arteriosclerosis was also more common during visits by the elderly with a median visit age of 75.1 years.

Essential benign hypertension was frequently concomitant with diabetes mellitus and obesity. When hypertension was the principal diagnosis, diabetes mellitus was also listed in about 5 percent of those visits. When diabetes mellitus was the principal diagnosis, hypertension was the second- or third-listed diagnosis during 14 percent of such visits. Obesity was an additional diagnosis in 10 percent of hypertension visits; hypertension was second- or third-listed in 5 percent of all visits for a principal diagnosis of obesity. Diabetes mellitus and obesity were also commonly coincident with ischemic heart disease. However, ischemic heart disease and hypertension were not frequently diagnosed during the same visits.

Physicians used electrocardiograms (EKG's), X-rays, and laboratory tests more often during initial patient visits than when the patient presented an "old" problem. Blood pressure was measured about 80 percent of the time when hypertension was present, but only about 30 percent of visits included blood pressure measurement when hypertension was absent. Nonhypertensive females were more likely to have their blood pressure taken than were nonhypertensive males. When hypertension was not present, the rate of blood pressure measurement increased with age.

BACKGROUND

The data were collected in the National Ambulatory Medical Care Survey (NAMCS), a continuous sample survey conducted by the Division of Health Resources Utilization Statistics of the National Center for Health Statistics. Detailed information regarding the background and methodology of the survey were published in *Vital and Health Statistics,* Series 2, No. 61.[1] Separate data for 1975 and 1976 were reported in Series 13, No. 33 and in Advance Data Report No. 30.[2,3]

This is the first series report based on NAMCS data for combined calendar years 1975 and 1976, and the first series report from that survey with a focus on diagnoses. Statistics representing 1975-76 visits for essential benign hypertension, a member of the diagnostic group of circulatory system diseases, were summarized in an advance report.[4] Other brief reports based on data from 1975, 1976, or combined years featured physician specialty profiles and visits by persons aged 65 years and over.[5-14]

Information about a maximum of three diagnoses for each sampled visit was collected during the survey. Each participating physician was requested to list on the data collection form the *principal* diagnosis, the physician's evaluation of the patient's condition related to the chief complaint or other reason for visit. Up to two additional significant diagnoses known to exist for the patient at that time could also be listed, but these were not necessarily related to the current visit. Diagnoses were classified and coded according to the *Eighth Revision International Classification of Diseases, Adapted for Use in the United States* (ICDA).[15] The principal or first-listed diagnosis is the primary emphasis of this report. However, patterns of coexisting diagnoses are often revealing, and additional data regarding second- and third-listed diagnoses are given where they are relevant and meaningful.

The data used in this report encompass the major ICDA category, diseases of the circulatory system, code 390-458. In addition to a general description of the utilization pattern of ambulatory care for the class of circulatory diseases, this report provides detailed information about patient, clinical, and practice characteristics of visits for selected most frequent, well-defined diseases within the class, for example, essential benign hypertension, ICDA code 401.

For clarity, categories of diseases, such as "diseases of the circulatory system" or "diseases of the respiratory system," are referred to in this report as "major ICDA group." Specific diseases within the groups are identified by their three-digit codes and designated as "principal," "second," or "third" diagnosis depending on the priority given by the physician.

Prior to data presentation, the scope of the survey and limitations of the data are described briefly to assist the reader in interpreting the estimates. A detailed description of the 1975-76 survey, including technical details, definitions, and survey instruments, appears in the appendixes to this report. The 1975 and 1976 surveys were conducted in identical fashion using the same instruments, definitions, and procedures. The 2 years of data were combined to provide greater reliability of estimates. Therefore, the reader should note that estimates of numbers of visits contained in this report are for a 2-year period, but ratios and rates represent average annual estimates.

SCOPE OF THE SURVEY

The basic sampling unit for NAMCS is the physician-patient encounter or visit. "Encounter" and "visit" are used interchangeably in this report.[a] Only visits in the conterminous United States in the offices of nonfederally employed physicians classified by the American Medical Association (AMA) or the American Osteopathic Association as "office-based, patient care" were included in the 1975-76 NAMCS. In addition, physicians in the specialties of anesthesiology, pathology, and radiology were excluded from the physician universe. Major types of ambulatory encounters not included in the 1975-76 NAMCS were those made by telephone, those

[a]The term "contact" is reserved to apply only to that part of the visit or encounter that involved a face-to-face interchange between physician and patient.

made outside of the physician's office, and those made in hospital or institutional settings. It is planned to extend the survey to include these encounters in the future as resources permit.

The definitions of "office," "physician," "patient," and "visit" as they determine eligibility for NAMCS are presented in appendix II.

SOURCE AND LIMITATION OF THE DATA

The data presented in this report were derived from information provided by a national probability sample of office-based physicians. A sample of 6,529 physicians was contacted during 1975-76. Of the 5,604 physicians who were eligible for the study, 4,476 (79.9 percent) participated in the study, providing data concerning a random sample of some 114,000 patient visits.

Specially trained interviewers visited the physicians prior to a designated reporting week, provided survey materials, and informed each physician and staff member about the methods and definitions to be used. During a randomly assigned 7-day reporting period, the sample physician maintained a listing of all office visits. For a systematic random sample of those visits, data were recorded on an encounter form provided for that purpose (see appendix III).

Readers are urged to review the three appendixes to this report. These appendixes provide information necessary for proper understanding and interpretation of the statistics presented. Appendix I contains a general description of the survey methods, the sample design, and the data collection and processing procedures. Imputation methods, estimation techniques, and estimates of sampling variation are also presented. Because the statistics in this report are based on a sample of ambulatory visits rather than on all visits, they are subject to sampling errors. Therefore, particular attention should be paid to the section in appendix I entitled "Reliability of Estimates." Examples of relative standard errors and instructions for their use are given in appendix I.

Definitions of the terms used in this report and in the survey operations are presented in appendix II. Facsimiles of survey materials, including letters, Patient Record forms, and Induction Interview forms are reproduced in appendix III.

By means of another program of NCHS, the Health Interview Survey (HIS), data are collected on the utilization of physician services but from a different universe. Estimates provided by HIS may differ from those in NAMCS because of differences in collection procedures, populations sampled, and definitions. Data from HIS are published in Series 10 of *Vital and Health Statistics.*

The distinction between prevalence of a disease and physician visits for a disease should be kept in mind when interpreting the data. For obvious reasons, physician visits do not necessarily reflect the degree to which a condition is present in the population, even though visits to the physician's office may be motivated by a pathological condition or the visit may result in the detection of the condition. The NAMCS was designed to provide information about the provision and use of certain ambulatory medical care services and is, therefore, a rich source of data concerning utilization of physicians' services when visits are characterized by specific diseases. Prevalence data may be obtained from other surveys conducted by NCHS.[b]

[b]For example, see publications of HIS (Series 10) and the Health and Nutrition Examination Survey (HANES) (Series 11).

MAJOR ICDA GROUP—DISEASES OF THE CIRCULATORY SYSTEM

Patients' problems, complaints, or symptoms were diagnosed as caused by diseases of the circulatory system in an estimated 110.6 million visits to office-based physicians in 1975-76. These visits accounted for about 10 percent of visits for all diagnoses, and comprised the second

leading morbidity-related diagnostic group (diseases of the respiratory system was first with 14 percent).

PATIENT CHARACTERISTICS

Visits for diseases of the circulatory system ranked first among major ICDA groups when patients visiting were 45 years of age or older. The number of office visits for all diagnoses according to age groups and the proportions of visits for each age group visiting for diseases of the circulatory system are listed in table A. Proportions of visits increased with advancing age. For visits by patients under 45 years of age, only 2 percent included a circulatory problem; 16 percent of visits by patients between 45 and 64 were similarly diagnosed; and 26 percent of all office visits by patients 65 years or older were for this major ICDA group. Additional distributions and rates of visits by sex and age are provided in table 1.

Table A. Number and percent of office visits for all diagnostic classes, and number and percent for diseases of the circulatory system, by sex, race, and age of patient: United States, 1975-76

Sex, race, and age	All diagnostic classes		Diseases of the circulatory system	
	Number of visits in thousands	Percent of visits	Number of visits in thousands	Percent of visits
All visits..	1,155,900	100.0	110,617	9.6
Sex and race				
Female	697,727	100.0	62,656	9.0
White	625,201	100.0	55,789	8.9
Black and other[1].....	72,525	100.0	6,866	9.5
Male	458,174	100.0	47,961	10.5
White	413,320	100.0	44,044	10.7
Black and other[2].....	44,853	100.0	3,916	8.7
Age				
Under 35 years.....	555,806	100.0	7,499	1.3
35-44 years	122,805	100.0	7,796	6.3
45-54 years	147,082	100.0	19,217	13.1
55-64 years	143,060	100.0	27,605	19.3
65-74 years	120,317	100.0	29,674	24.7
75 years and over....	66,831	100.0	18,824	28.2

[1]About 84 percent were visits by members of the black race.
[2]About 72 percent were visits by members of the black race.

For those persons who visited physicians, proportions of visits for diseases of the circulatory system did not significantly differ by race (table A). Although the visit rate shown in table 1 was higher for white persons than for members of black and other races, the same was true of all NAMCS visits regardless of the diagnosis. That white persons tended to visit office-based physicians at a higher rate than did members of all other races was shown in HIS.[16]

Although there were, on the average, more visits per person in the population by females than by males for circulatory problems, a higher proportion of visits by males than visits by females included a circulatory problem. Of the 458.1 million visits by males estimated in NAMCS, 11 percent were for circulatory system diseases; of the 697.7 million visits by females, 9 percent included this disease group (table A).

PATIENT CONDITION AND MANAGEMENT

Most visits for circulatory disorders were for regular care of a preexisting condition or for a sudden exacerbation of a preexisting chronic condition (74 percent total). Acute conditions, defined as those having a relatively sudden or recent onset, initiated about 14 percent of these visits, and an additional 12 percent represented followup care of a previously treated acute condition. (Here as elsewhere in this report data are used which are taken from source data and are not shown in tables or charts.)

The high degree of chronically ill patients among those visiting for diseases of the circulatory system and the tendency of these patients to seek continuous medical care were reflected by the ratio of 5.4 visits by returning patients with continuing problems to each new-problem encounter. New-problem encounters included new patients and patients the physician had seen

before but not for the current problem. Continuous rather than episodic care was more likely when visits were diagnosed as diseases of the circulatory system than when other systems were involved since there were proportionally fewer new-problem encounters in this disease group than in any other major ICDA group.

Ongoing patient management was demonstrated by physicians' instructions to return at a specified time or to return if needed, given during 93 percent of visits. In only 3 percent of visits was no followup planned. When a disease of the circulatory system was diagnosed, physicians relied on telephone followup for only 2 percent of visits, less often than when other morbidity-related major ICDA groups were involved. About 3 percent of these visits resulted in admittance to a hospital.

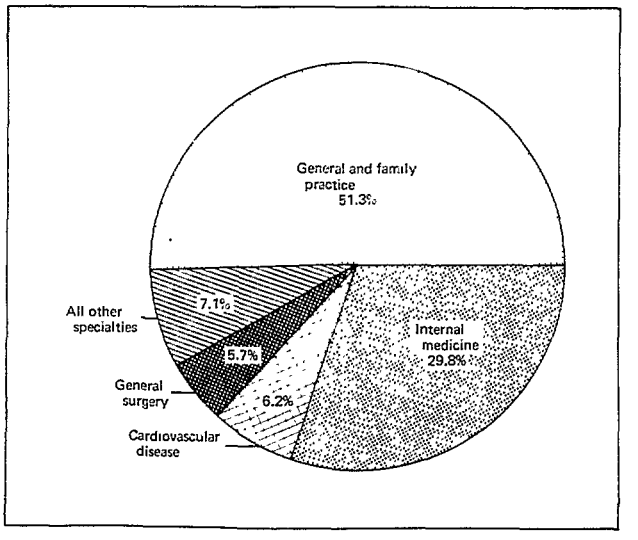


Figure 1. Percent distribution of office visits for diseases of the circulatory system, by specialty visited: United States, 1975-76

PRACTICE CHARACTERISTICS

Figure 1 illustrates the division of visits for diseases of the circulatory system by physician specialty. Most visits made were to offices of general and family practitioners and internists, specialists whose combined practices comprised about 35 percent of office-based physicians in the United States in 1975 according to the AMA.[17]

Table 2 shows the minimum amount of variation in proportions of visits by geographic location. Differences between proportions of visits to physicians' offices in metropolitan and nonmetropolitan areas, and between solo and other practice arrangements tend to reflect the distribution of physicians in the United States.

SELECTED DISEASES OF THE CIRCULATORY SYSTEM

In the ICDA, related diagnoses within the category of diseases of the circulatory system are grouped by sequences of three-digit rubrics (e.g., ischemic heart disease includes codes 410 through 414). The number and percent of visits for each sequence are listed in table B. Percents of visits for the most frequent specific principal diagnoses within each sequence are also shown. Essential benign hypertension accounted for the largest number of visits among the diseases of the circulatory system (42 percent) followed by chronic ischemic heart disease (24 percent). Essential benign hypertension also ranked first among all visits for morbidity-related principal diagnoses (at the 3-digit ICDA level), comprising 4 percent of the over 1.1 billion estimated visits in 1975-76.[c] Chronic ischemic heart disease, the third leading morbidity-related condition, accounted for 2 percent of the total.

The balance of this report presents patterns of office-based medical care for these and other selected diseases of the circulatory system.

[c]The data classified as "morbidity related" apply to visits where the principal diagnosis fell in any of the 17 major ICDA groups (codes 000-999). The two highest proportions of NAMCS visits in 1975-76 were in the ICDA supplementary classifications, "Medical or special examinations" (code Y00), and "Medical and surgical aftercare" (code Y10). "Prenatal care" (code Y06) was the fourth leading diagnosis. See Advance Data Report No. 30 for additional information on ranks of diagnoses.

Table B. Number and percent distribution of office visits for diseases of the circulatory system and for selected principal diagnoses: United States, 1975-76

Diagnosis and ICDA code[1]		Number of visits in thousands	Percent distribution of visits
All visits	390-458	110,617	100.0
Active rheumatic fever and chronic rheumatic heart disease	390-398	1,867	1.7
Hypertensive disease	400-404	47,120	42.6
Essential benign hypertension	401	46,128	41.7
Ischemic heart disease	410-413	31,314	28.3
Acute myocardial infarction and other acute and subacute forms of ischemic heart disease	410-411	2,319	2.1
Chronic ischemic heart disease	412	26,020	23.5
Angina pectoris	413	2,975	2.7
Other forms of heart disease	420-429	9,161	8.3
Symptomatic heart disease	427	7,052	6.4
Cerebrovascular disease	430-438	4,505	4.1
Diseases of arteries, arterioles, and capillaries	440-448	4,441	4.0
Arteriosclerosis	440	2,019	1.8
Diseases of veins and lymphatics and other diseases of the circulatory system	450-458	12,210	11.0
Phlebitis and thrombophlebitis	451	2,930	2.6
Varicose veins of lower extremities	454	2,428	2.2
Hemorrhoids	455	3,686	3.3

[1]Diagnostic groupings and code inclusions are based on the *Eighth Revision International Classification of Diseases, Adapted for Use in the United States, 1965.*

PATIENT CHARACTERISTICS

Essential benign hypertension (401).—Visit rates for essential benign hypertension, coronary heart disease,[d] and other selected diseases of the circulatory system are plotted in figure 2 by sex and in figure 3 by race. Demographic data are also detailed in tables 3 and 4.

Seven of eight office visits for care of essential benign hypertension were made by white persons. In 5 of 8 visits the problem was presented by a female. The highest proportion of visits was in the age group 55-64 years. Visit rates increased with advancing age up to age group 65-74 years. Females visiting were, on the average, older than males, since the median visit age for females was 62.0 years and for males it was 57.6 years.[e]

There was a marked difference in visit rates by sex beginning at about age 44, with the female rate peaking at age group 65-74 years, about 10 years later than the male rate peaked (figure 4). The advanced female age at visits for hypertension as opposed to the younger male age at such visits may be related to greater susceptibility of males to other cardiovascular diseases that preempt essential benign hypertension as primary diagnosis. The Framingham

[d]The term "coronary heart disease" is used interchangeably with the ICDA terminology "ischemic heart disease" in this report. Both terms refer to the group of heart ailments, acute and subacute ischemic heart disease (410-411), chronic ischemic heart disease (412), and angina pectoris (413).

[e]Median *visit* age should not be confused with median *patient* age. The median visit age is based on initial and return visits some of which may be by the same patient.

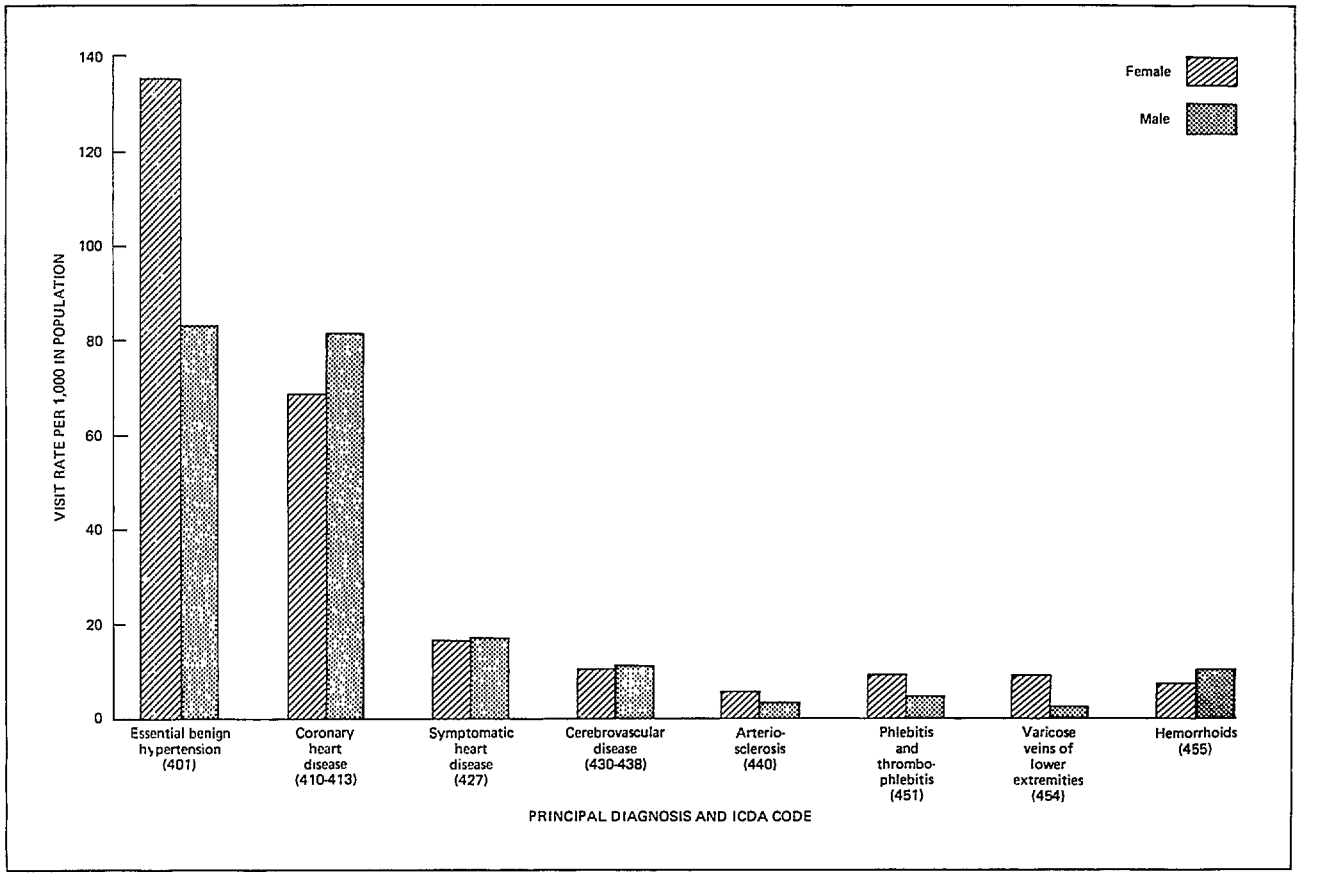


Figure 2. Average annual rate of office visits for selected diseases of the circulatory system, by sex of patient: United States, 1975-76

Study demonstrated that for persons with definite hypertension the incidence rates of diseases such as coronary heart disease and congestive heart failure were substantially higher for males than for females of the same age.[18] Therefore, while the diagnosis may remain essential benign hypertension as females age, a principal diagnosis of this disorder for visits made by males may have been supplanted earlier by other diagnoses.

Coronary heart disease (410-413).—Visit rates for patients with coronary heart disease differed from those for patients with essential benign hypertension. Beginning with age group 35-44 years and up to age 74 years, visit rates for males who had coronary heart disease exceeded rates for females (figure 5). This is not surprising in view of the foregoing discussion suggesting that a diagnosis of essential benign hypertension is often supplanted by its cardiovascular sequelae at an earlier age among males than among females. Unlike essential benign hypertension, there was no drop in visit rate for the oldest age groups.

In figure 6, visit rates for essential benign hypertension and coronary heart disease are contrasted for visits by females only. Figure 7 illustrates visit rates among males for the same two diseases.

The changing relationship of visit rates for these two diseases, depending on the sex of the visiting patient, can be observed in figures 6 and 7. For office visits by females, rates were higher for essential benign hypertension than for coronary heart disease from age 35 years to age group 65-74 years (figure 6). The hypertension rate dropped at age 75 years and over and the coronary heart disease rate continued to rise. Visit rates for these two conditions were different

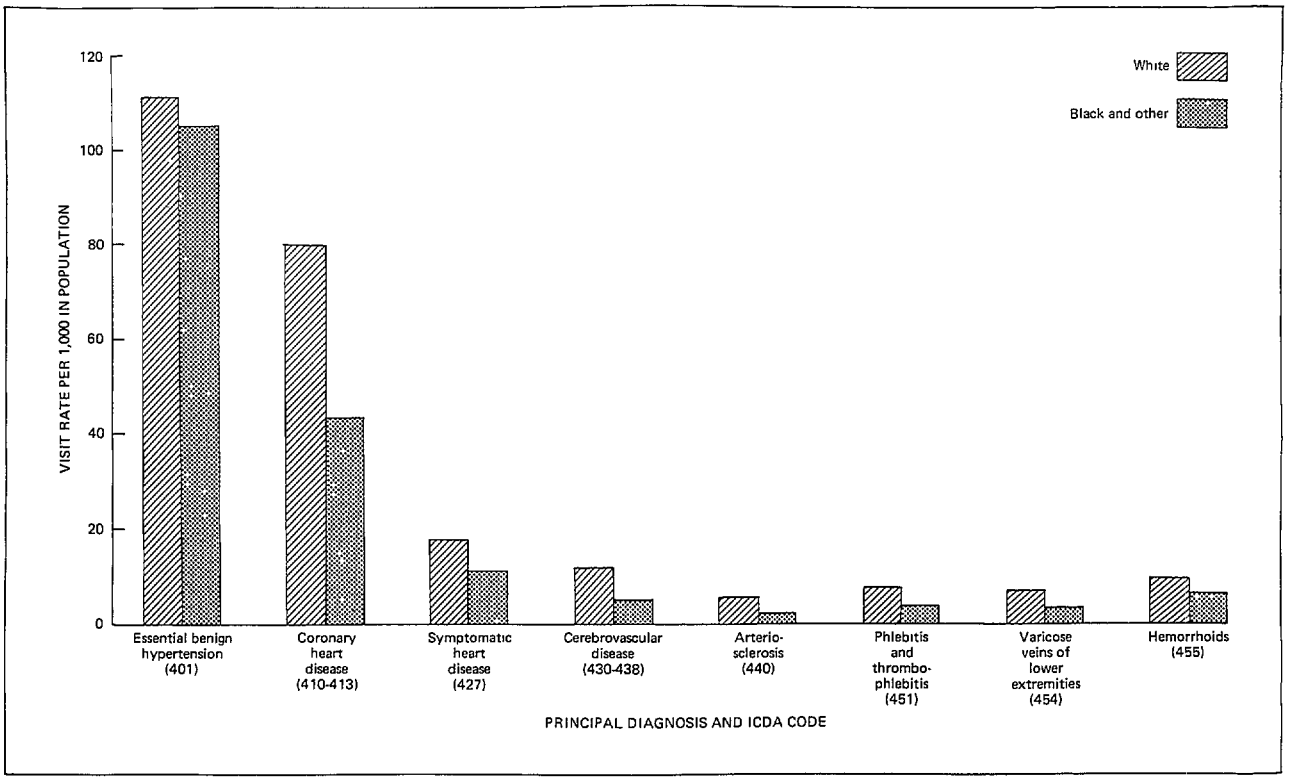


Figure 3. Average annual rate of office visits for selected diseases of the circulatory system, by race of patient: United States, 1975-76

when male patients visited. For males, hypertension rates exceeded those of coronary heart disease up to age group 55-64 years, after which the hypertension rate dropped and the other rate continued to rise (figure 7). For males aged 65-74 years the coronary heart disease rate was half again as large as the rate for essential benign hypertension; for visits by males 75 years and older the rate for the first disease more than doubled that of the second.

Males visiting for chronic ischemic heart disease were younger than females with the same diagnosis. The median visit age for males was 64.1 years in contrast to a median visit age of 70.5 years for females (table 4). One explanation for the older median visit age for females may be found in the mortality statistics of the United States.[19] In 1975, male deaths from coronary heart disease exceeded female deaths from the same cause in every age group up to 80 years.

Differences in median visit age between the two sexes for acute ischemic heart disease (which included acute myocardial infarction) and angina pectoris were not statistically significant.

Symptomatic heart disease (427).—Patients presenting symptomatic heart disease were younger than those presenting some other forms of heart disease. About 16 percent of these visits were made by patients under 45 years old, compared with about 5 percent in the same age group for chronic ischemic heart disease.

Cerebrovascular disease (430-438).—Cerebrovascular disease visits more often included elderly patients than did hypertension or heart disease. Seven in ten visits for this disease were made by patients 65 years and over. Patients 75 years and older contributed to the highest proportion of visits made for cerebrovascular disorders (39 percent); such visits by patients under 45 years were rare (3 percent). Of all circulatory problem visits, cerebrovascular disease had the lowest proportion of visits by patients under 45 years. As a result, the median visit age of

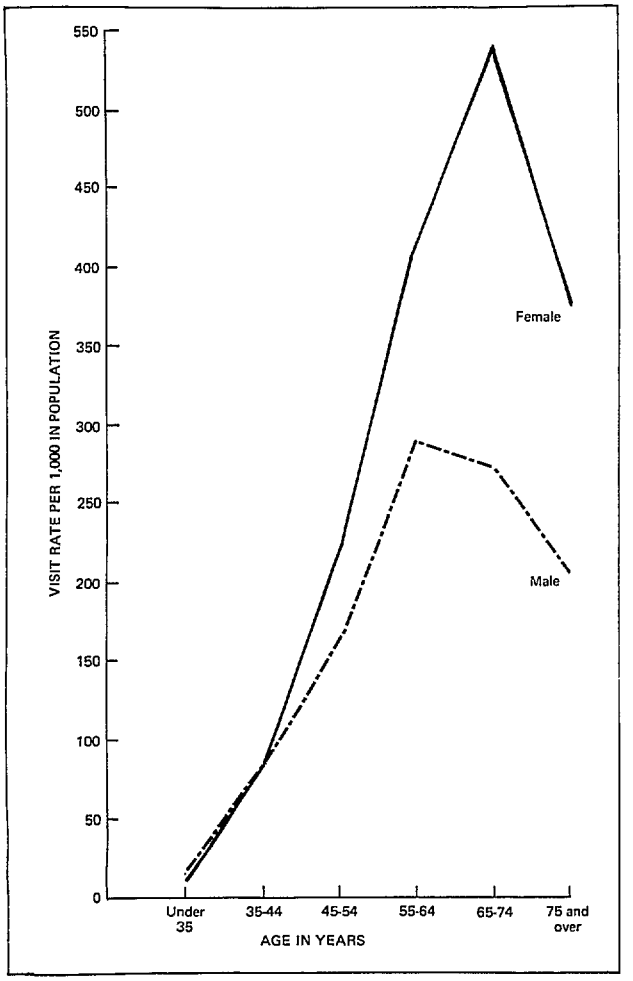


Figure 4. Average annual rate of office visits for essential benign hypertension, by sex and age of patient: United States, 1975-76

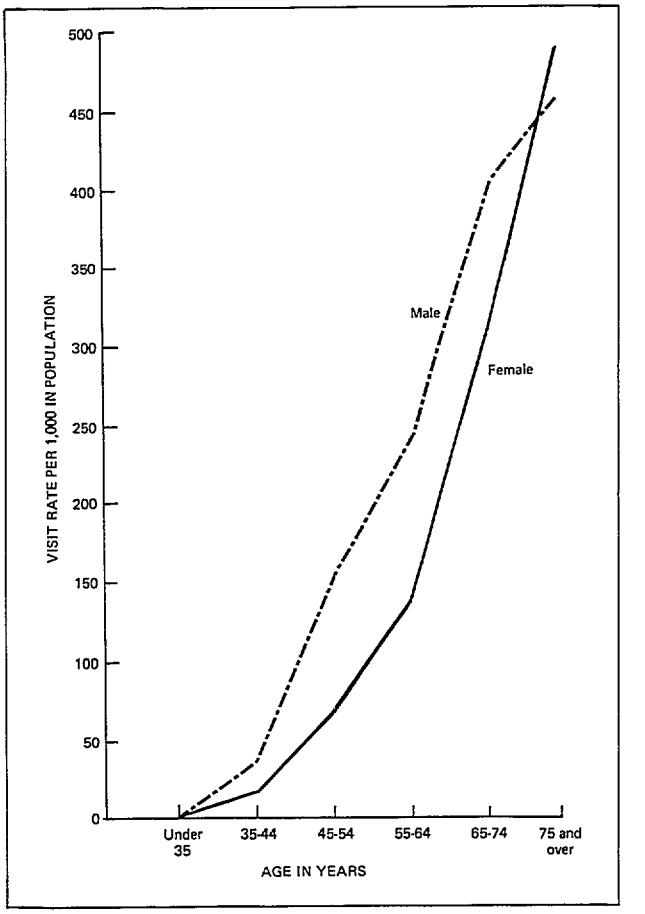


Figure 5. Average annual rate of office visits for coronary heart disease, by sex and age of patient: United States, 1975-76

71.2 years for this disease was relatively high compared to other circulatory diseases.

The relationship of hypertension to heart disease and to cerebrovascular disease, particularly as a precursor of stroke, has been established. Research findings also suggest that cerebrovascular disease resulting from hypertension progresses at a slower rate than does heart disease resulting from hypertension.[20] If this is true, then the later age of the onset of cerebrovascular disease may well be reflected in the older median visit age estimated in NAMCS.

Visits for cerebrovascular disease were about equally divided between men and women.

Arteriosclerosis (440).—The median visit age for patients afflicted with arteriosclerosis was the highest of all circulatory problems, 75.1 years. According to vital statistics reports, death rates due to arteriosclerosis did not attain any significant proportions until the age of at least 65 years. For example, the 1975 death rate due to arteriosclerosis for persons 65-74 years old was 26.6 per 100,000 population compared with 303.1 for cerebrovascular disease and 132.37 for heart disease. At ages 75-84 years, the rate of death due to arteriosclerosis was 159.4.[21] Thus, either arteriosclerosis was not diagnosed until later years or patients with arteriosclerosis who had greater longevity continued to visit physicians (thus raising the median visit age).

There was no significant difference in visit rate nor in median visit age between female and male patients.

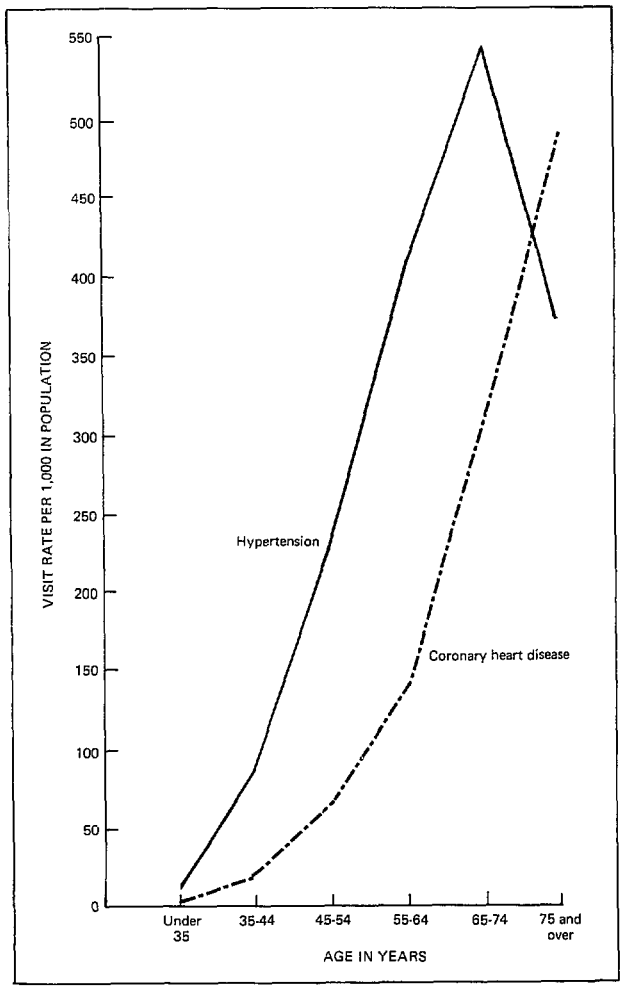


Figure 6. Average annual rate of office visits by females for essential benign hypertension and coronary heart disease, by age of patient: United States, 1975-76

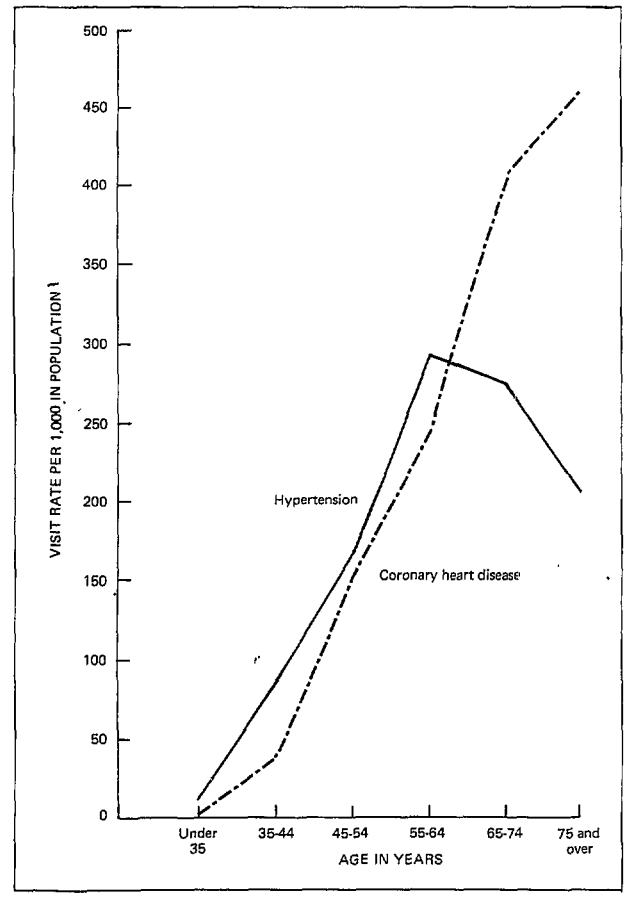


Figure 7. Average annual rate of office visits by males for essential benign hypertension and coronary heart disease, by age of patient: United States, 1975-76

Phlebitis and thrombophlebitis (451), varicose veins of the lower extremities (454), hemorrhoids (455).—In contrast to visits for arterial disease, visits for diseases of veins were made by younger patients. About half of the visits for phlebitis and thrombophlebitis as well as for varicose veins of the lower extremities included patients under 55 years, as reflected by the median visit ages of 53.9 years and 55.1 years, respectively. Of all circulatory diseases, the lowest median visit age was reported for hemorrhoids, 45.6 years. Visits for hemorrhoids were rarer for persons 65 years and older than were any other visits made for diseases of the circulatory system. Only 14 percent of the visits made because of hemorrhoids were made by persons in that age group, and only 3 percent were made by persons 75 years and older.

Visits for phlebitis and thrombophlebitis as well as for varicose veins of the lower extremities were more likely to include a female than were visits for heart disease or cerebrovascular disease; the reverse was true for males. However, proportions of visits made because of hemorrhoids did not differ significantly by patient sex.

PRACTICE CHARACTERISTICS

With minor exceptions, estimates of characteristics of physicians' practices related to visits for most specific circulatory disease diagnoses did not vary appreciably from the findings in the

Table C. Number, percent distribution, and average annual rate of office visits for essential benign hypertension (401), by most frequently visited specialties and sex and age of patient: United States, 1975-76

Specialty	Number of visits in thousands	Total	Sex		Age	
			Female	Male	Under 65 years	65 years and over
		Percent distribution				
General and family practice	27,179	100.0	64.4	35.6	62.0	38.1
Internal medicine	12,779	100.0	60.5	39.5	68.8	31.2
General surgery	2,190	100.0	63.1	36.9	63.4	36.6
Obstetrics and gynecology	727	100.0	86.2	*	71.2	28.8
Cardiovascular diseases	1,461	100.0	54.1	45.9	64.2	35.8
		Visit rate per 1,000 in population				
General and family practice	...	65.1	81.0	48.1	45.0	240.7
Internal medicine	...	30.6	35.8	25.1	23.5	92.9
General surgery	...	5.2	6.4	4.0	3.7	18.7
Obstetrics and gynecology	...	1.7	2.9	*	*1.4	*4.9
Cardiovascular diseases	...	3.5	3.7	3.3	2.5	*12.2

Table D. Number, percent distribution, and average annual rate of office visits for coronary heart disease (410-413), by most frequently visited specialties and sex and age of patient: United States, 1975-76

Specialty	Number of visits in thousands	Total	Sex		Age	
			Female	Male	Under 65 years	65 years and over
		Percent distribution				
General and family practice	14,920	100.0	50.7	49.3	42.9	57.1
Internal medicine	11,722	100.0	45.6	54.4	46.7	53.3
Cardiovascular diseases	3,089	100.0	39.9	60.2	48.2	51.8
		Visit rate per 1,000 in population				
General and family practice	...	35.8	35.0	36.5	17.1	198.4
Internal medicine	...	28.1	24.7	31.7	14.6	145.4
Cardiovascular diseases	...	7.4	5.7	9.2	4.0	37.2

major group (diseases of the circulatory system) detailed in an earlier section. Distributions of visits for the specific diseases according to geographic region, metropolitan and nonmetropolitan areas, and type of practice are shown in table 5.

Table C shows the extent to which hypertension visits varied by age and sex of patient when the most frequently visited specialties were considered. Similar details are given in table D for visits made for coronary heart disease. Tables 6 and 7 relate type and area location of practice to specialties visited because of hypertension and coronary heart disease.

PATIENT CONDITION AND MANAGEMENT

Most statistics presented in this report relate to principal or first-listed diagnoses. The clinical picture of patients who utilize physician

resources would be incomplete, however, without information regarding the frequency of care given patients troubled by circulatory problems not necessarily related to the patient's principal complaint.[f] Visits in which circulatory system diseases were second- or third-listed diagnoses provide additional data about the number of times a disease was a recognized and diagnosed condition, although it may not have been the primary diagnosis at the visit.

Furthermore, it was shown earlier that most visits in which the principal diagnosis was listed in the diseases of the circulatory system group included visits by middle-aged and elderly patients who are generally acknowledged to suffer from multiple maladies, many of which are classified in other major ICDA groups. These ailments are also listed on the Patient Record as "other significant diagnoses." All conditions the physician finds germane to the visiting patient, therefore, reflect patterns of disease concomitance.

Diseases of the Circulatory System As Second- or Third-Listed Diagnoses

Table E shows the number of visits in which diseases of the circulatory system were identified as additional diagnoses. The volume of estimated visits which included each specific disease increased considerably when a maximum of three known patient conditions were considered. As an example of the use of this table, there were 46.1 million visits with a principal diagnosis of essential benign hypertension (table B). Adding this number to the 28.6 million visits shown in table E for essential benign hypertension yields a total of 74.7 million visits in which essential benign hypertension was a condition known to exist for the patient at that time. Using the data in tables B and E similarly, coronary heart disease was a listed diagnosis during 52.2 million visits.[g]

Table E. Number and percent of office visits for selected diseases of the circulatory system listed as second or third diagnoses: United States, 1975-76

Diagnosis and ICDA code[1]	Number of visits in thousands	Percent of visits
All visits	1,155,900	100.0
Essential benign hypertension 401	28,590	2.5
Coronary heart disease 410-413	20,887	1.8
Symptomatic heart disease 427	7,830	0.7
Cerebrovascular disease 430-438	2,771	0.2
Arteriosclerosis 440	4,119	0.4
Phlebitis and thrombophlebitis 451	904	0.1
Varicose veins of lower extremities...454	1,559	0.1
Hemorrhoids 455	1,297	0.1

[1]Diagnostic groupings and code inclusions are based on the *Eighth Revision International Classification of Diseases, Adapted for Use in the United States, 1965.*

Recent hypertension prevalence data are available from HANES.[22] These data in conjunction with NAMCS visit data wherein essential benign hypertension was a principal, second-, or third-listed diagnosis provide some insight into the utilization of office-based ambulatory medical care resources by those in need of treatment. According to the findings of HANES, an estimated 23.2 million adults aged 18-74 years had definite hypertension, 23.4 million had borderline hypertension, and 81.4 million were normotensive. However, HANES also showed that of the borderline and normotensive groups, 8.9 percent and 2.0 percent, respectively, took regular medication for high blood pressure, leading to an assumption in HANES that an additional 3.7 million adults had controlled hypertension, or a total essential benign hypertension prevalence of 26.9 million. If 37.3 million, the average yearly visits (one-half of the 74.7 million visits in which essential benign hypertension was a listed diagnosis), is divided

[f]Although most diseases are characterized by syndromes or configurations of complaints, an attempt is made in NAMCS to relate the principal diagnosis to the most important complaint presented by the patient. A discussion of patients' principal complaints or symptoms follows in a later section of this report.

[g]When first-, second-, and third-listed diagnoses are considered, total visits for two or more diseases are not additive since it is possible that the two or more diseases were diagnosed during the same visit.

Table F. Number and percent of office visits for essential benign hypertension (401) listed as first, second, or third diagnosis, by other most frequent diagnoses: United States, 1975-76

Diagnosis and ICDA code[1]	Hypertension listed as first diagnosis		Hypertension listed as second or third diagnosis	
	Number of visits in thousands	Percent of visits	Number of visits in thousands	Percent of visits
All visits	46,128	100.0	28,590	100.0
Diabetes mellitus .250	2,054	4.5	4,038	14.1
Obesity .277	4,674	10.1	1,425	5.0
Neuroses .300	1,380	3.0	1,125	3.9
Arteriosclerosis .440	649	1.4	*340	1.2
Bronchitis, emphysema, asthma .490-493	*575	1.3	948	3.3
Arthritis and rheumatism, except rheumatic fever .710-718	2,038	4.4	2,957	10.3

[1]Diagnostic groupings and code inclusions are based on the *Eighth Revision International Classification of Diseases, Adapted for Use in the United States, 1965.*

by the HANES essential benign hypertension prevalence of 26.9 million, there was an estimated average minimum visit rate of 1.4 visits to office-based physicians per year for each person aged 18-74 years in the population who had hypertension. This utilization rate provides a benchmark for future estimation and evaluation of the utilization of physician resources by the segment of the population needing treatment for essential benign hypertension. One reason for the low rate of utilization may well be due to the fact, shown in HANES, that 55 percent of the population estimated to have definite hypertension were never diagnosed as hypertensive.[h] As consumer education reduces this number, the rate of utilization may increase.

Diagnostic Concomitance

The pattern of coexistence of hypertension with other diagnoses not necessarily in the group "diseases of the circulatory system" is described in table F. The same type of analysis for coronary heart disease is shown in table G. The first item of note (which is evident by its absence) is that hypertension and coronary heart disease were not assigned to first, second, or third diagnoses interchangeably, to any great degree. That is, when hypertension was the principal diagnosis, coronary heart disease rarely was included as a second or third condition. When essential benign hypertension was a second- or third-listed diagnosis, coronary heart disease was not the principal diagnosis. The same situation prevailed for coronary heart disease as shown in table G. These data lend support to the idea offered earlier that its cardiovascular consequences eventually supplanted essential benign hypertension as a diagnosis during visits to physicians.

The diagnoses listed in table F were most frequently observed during visits when hypertension was present. For example, when hypertension was the principal diagnosis, diabetes mellitus was the second or third diagnosis in about 5 percent of the 46.1 million visits. When essential benign hypertension was the second- or third-listed diagnosis, a striking 14 percent of those 28.6 million visits were diagnosed primarily as diabetes mellitus. Similarly, obesity was an additional diagnosis in 10 percent of visits made for essential benign hypertension, and was principal diagnosis for 5 percent of visits when essential benign hypertension was listed as

[h]Data in HANES were collected from 1971 to 1974. There is reason to believe that the percent of never-diagnosed hypertensives was slightly less in 1975-76.

Table G. Number and percent of office visits for coronary heart disease (410-413) listed as first, second, or third diagnosis, by other most frequent diagnoses: United States, 1975-76

Diagnosis and ICDA code[1]	Coronary heart disease listed as first diagnosis		Coronary heart disease listed as second or third diagnosis	
	Number of visits in thousands	Percent of visits	Number of visits in thousands	Percent of visits
All visits	31,314	100.0	20,887	100.0
Diabetis mellitus.....250	2,029	6.5	1,574	7.5
Obesity.....277	1,079	3.5	*	*
Cerebrovascular disease.....430-438	623	2.0	618	3.0
Bronchitis, emphysema, asthma.....490-493	838	2.7	847	4.1
Arthritis and rheumatism, except rheumatic fever.....710-718	1,469	4.7	1,344	6.4

[1]Diagnostic groupings and code inclusions are based on the *Eighth Revision International Classification of Diseases, Adapted for Use in the United States, 1965.*

second or third diagnosis. Neuroses; arteriosclerosis; bronchitis, emphysema, and asthma; as well as arthritis and rheumatism (except rheumatic fever) also appeared in conjunction with essential benign hypertension in a substantial number of visits.

Four types of diagnoses most commonly coincident with hypertension also co-occurred with coronary heart disease (although essential benign hypertension itself did not, as pointed out earlier). Diabetes mellitus; obesity; bronchitis, emphysema, and asthma; and arthritis and rheumatism (except rheumatic fever) together accounted for about 17 percent of the visits in which coronary heart disease was a principal diagnosis. Excluding obesity, these diseases were primarily responsible for 18 percent of visits when coronary heart disease was listed second or third by the physician. It may seem unlikely for coronary heart disease to be "second" to bronchitis or arthritis, but the reader is reminded that the assignment precedence of one diagnosis over another on the NAMCS Patient Record was not dictated by its severity but by its relationship to the most important reason for that visit expressed by the patient. Cerebrovascular disease, which did not occur frequently in conjunction with hypertension, emerged as a concomitant diagnosis with coronary heart disease during visits. Since cerebrovascular disease is often a consequence of hypertension, it is not surprising that cerebrovascular disease and hypertension were not frequently concurrent much as coronary heart disease, which is also a potential consequence of hypertension, was not frequently concurrent with essential benign hypertension.

The number of visits for diseases belonging to other major ICDA groups that co-occurred with arteriosclerosis, cerebrovascular disease, and diseases of veins were insufficient to use as a basis on which to determine two-way relationships within the limits of good reliability. However, arteriosclerosis and cerebrovascular disease were concurrent with other members of their own ICDA group. Arteriosclerosis numbered among diseases that were extant with essential benign hypertension, while cerebrovascular disease figured among those associated with coronary heart disease, as pointed out previously.

Patient's Principal Problem, Complaint, or Symptom

It is instructive to examine data on visits that culminated in diseases of the circulatory system diagnoses in terms of the problems that motivated patients to visit physicians. These problems help to explain why patients seek ambulatory medical care and are therefore useful indicators of health resources utilization.

The problem, complaint, symptom, or other reason for visit expressed by the patient, which in the physician's judgment was most responsible for the patient making the visit, was entered on the Patient Record. It was coded according to a symptom classification developed especially for NAMCS.[23] (The principal *diagnosis* is the physician's evaluation of the patient's condition associated with this chief complaint.) The terms "problem," "complaint," and "symptom" are used interchangeably in this report.

Essential benign hypertension.—The problems presented most frequently when the visiting patient was diagnosed as hypertensive are listed in table 8. It is known that essential benign hypertension is generally asymptomatic for a long period of time. However, the closely related symptoms of headache, vertigo, fatigue, and nervousness appeared in about 16 percent of visits and represented the most frequent patient symptoms (after deletion of nonsymptomatic reasons of "high blood pressure" and medical examinations).

Although abnormally high blood pressure may be a *sign* of essential benign hypertension, studies have shown that patients have little sensory awareness of blood pressure. Usually elevated blood pressure is determined objectively through measurement by a medical provider. Therefore, it is probable that in the 27 percent of visits in which "abnormally high blood pressure" was coded, patients were visiting for a checkup and were repeating a prior professional evaluation rather than articulating their own physicial discomfort. In this sense, high blood pressure would not necessarily be considered a symptom arising from internal stimulus such as headache would be. Under this assumption, high blood pressure (27 percent) together with visits for which no patient symptom was indicated by the physician (40 percent) and general medical examination (2 percent)—a total of 69 percent of visits with a diagnosis of essential benign hypertension—when compared to the 16 percent of visits made because of headache, vertigo, fatigue, and nervousness, provides a rough measure of asymptomatic versus symptomatic reasons for visit expressed by patients.

The most frequently reported symptoms were not more likely to be presented by one sex than by the other. Neither did the number of visits for each symptom differ significantly when presented by patients under 65 years of age or by patients 65 years and older.

Coronary heart disease.—The most frequent problems presented by patients during visits for this disease are shown in table 9. Unlike visits made for essential benign hypertension, visits made because of coronary heart disease were more often subjectively symptomatic than they were asymptomatic. About one-third of all such visits occurred because of chest pain, shortness of breath, and other symptoms referable to the cardiovascular system. Fatigue, vertigo, and headache were general symptoms which together accounted for another 10 percent. Pain, swelling, and injury of the lower extremities was given as a reason in about 2 percent of the visits made because of coronary heart disease.

Patients visiting for checkups such as those designated by "abnormally high blood pressure" (4 percent) and "progress visit" (30 percent) may have also experienced symptoms of heart disease and general symptoms, but these symptoms may not have been expressed by the patient at that visit.

Coronary heart disease patients under 65 years of age were more likely to present the problem of chest pain than were older patients, but other symptoms were not significantly related to one age group or the other.

Differences by sex among patients presenting varous symptoms were also not statistically significant.

Other diseases of the circulatory system.—Patients visiting for treatment of symptomatic heart disease were also likely to complain of physicial difficulties. Predictably, the two most common reasons were irregular pulsations and palpitations (22 percent) and shortness of breath (16 percent). An additional 10 percent involved various other symptoms referable to the cardiovascular system. Pain, swelling, and injury of the lower extremities was reported during 5 percent of visits.

Patients complained mainly of vertigo (23 percent) during visits for cerebrovascular disease. Vertigo and fatigue together motivated 28 percent of arteriosclerosis visits.

Complaints associated with diseases of the veins were clearly physical manifestations of the conditions. "Problems of the lower extremities" and "varicose veins" were mainly responsible for visits diagnosed "varicose veins of the lower extremities." Phlebitis patients also complained mainly of lower extremity problems. Equally obvious problems caused visits for hemorrhoids.

Visit Status and Seriousness of the Problem

Although complaints and diagnoses identify the nature of patient visits, problem status and the degree of seriousness of the problem describe the intensity of patients' problems. Data for these two variables are presented in table 10.

It was mentioned earlier that new-problem encounters (those visits in which a problem is presented for the first time, whether by a new patient or by a patient the physician had seen before) were not the rule for the major ICDA group of circulatory diseases. There was some variation on that score among specific principal diagnoses, however, which was worthwhile examining. It can be seen from table 10 that visits for diseases of veins (phlebitis and thrombophlebitis, varicose veins of lower extremities, and hemorrhoids) were proportionally more frequently new-problem encounters than were other circulatory diseases. Equally apparent is the fact that visits for hypertension and chronic ischemic heart disease were more likely to be continuing problems than were visits for other diagnoses shown in the table.

Visit status in terms of patient sex and age is provided in table H for hypertension visits, and in table J for coronary heart disease visits.

"Seriousness" refers to the physician's clinical judgment as to the extent of the patient's impairment that might result if no care were

Table H. Number and percent distribution of office visits for essential benign hypertension (401) by visit status, seriousness of problem, and disposition of visit, according to sex and age of patient: United States, 1975-76

Visit status, seriousness, and disposition	Sex		Age	
	Female	Male	Under 65 years	65 years and over
	Number of visits in thousands			
All visits	29,287	16,840	29,596	16,532
	Percent distribution			
Total	100.0	100.0	100.0	100.0
Visit status				
New patient	5.0	4.8	5.9	3.0
Returning patient, new problem	5.8	6.0	5.7	6.3
Returning patient, continuing problem	89.3	89.2	88.4	90.7
Seriousness				
Serious or very serious	20.8	24.7	22.7	21.3
Slightly serious	47.0	45.2	47.2	44.8
Not serious	32.2	30.1	30.1	33.9
Disposition[1]				
Return at specified time	86.8	84.9	87.2	84.1
Return if needed	10.0	10.7	9.0	12.5
Referred to other physician or returned to referring physician	*2.0	*2.3	2.5	*1.5
Other[2]	4.2	5.8	5.1	4.3

[1]Percents will not add to 100.0 because some patient visits had more than 1 disposition.
[2]Includes admit to hospital, no followup planned, telephone followup, or other disposition.

Table J. Number and percent distribution of office visits for coronary heart disease (410-413) by visit status, seriousness of problem, and disposition of visit, according to sex and age of patient: United States, 1975-76

Visit status, seriousness, and disposition	Sex		Age	
	Female	Male	Under 65 years	65 years and over
	Number of visits in thousands			
All visits	14,828	16,485	14,093	17,221
	Percent distribution			
Total	100.0	100.0	100.0	100.0
Visit status				
New patient	5.0	4.9	8.0	2.4
Returning patient, new problem	7.1	7.1	6.3	7.8
Returning patient, continuing problem	88.0	88.0	85.7	89.9
Seriousness				
Serious or very serious	51.5	52.9	55.9	49.2
Slightly serious	33.4	32.3	29.5	35.6
Not serious	15.1	14.8	14.6	15.2
Disposition[1]				
Return at specified time	86.6	86.1	85.7	86.9
Return if needed	8.7	7.7	7.2	9.1
Referred to other physician or returned to referring physician	*3.8	*3.1	*4.1	*2.9
Other[2]	5.4	8.1	8.0	5.9

[1]Percents will not add to 100.0 because some patient visits had more than 1 disposition.
[2]Includes admit to hospital, no followup planned, telephone followup, or other disposition.

available. Using this criterion, physicians were requested to rate the patient's condition on a 4-point scale ranging from "not serious" to "very serious." Although the same definition of "seriousness" was provided to all participants in the survey, it is difficult to determine the degree of adherence to it. Medical specialists vary in training emphasis and degree of prognostic latitude. The data should be viewed in this context.

Degree of seriousness appeared to vary from one type of diagnosis to another. Essential benign hypertension was more often judged in the two less serious categories, and coronary heart disease was more frequently judged in the more serious categories. Except for phlebitis visits which were about equally divided on each half of the seriousness range, diseases of the veins were assigned to the less serious categories more frequently than to the more serious categories. Arteriosclerosis visits were also among the group evaluated as less serious.

The relationship of seriousness to patient or problem status was examined and results are presented in table K for hypertension visits and table L for coronary heart disease visits. For both of these diagnoses, the judgment of severity was apparently not related to the status of the visit (new or returning patient) or to the status of the problem (new or recurring problem), because variations among estimates were not statistically significant. That is, new patients were not more often categorized as "serious" or "very serious" than were returning patients, nor were new-problem visits more often judged "serious" or "very serious" than were old-problem visits.

Because the estimates yielded by the seriousness scale that was used to judge these chronic problems were not conclusive, some comment

Table K. Number and percent distribution of office visits for essential benign hypertension (401) by seriousness of problem, according to visit status: United States, 1975-76

Visit status	Number of visits in thousands	Total	Serious or very serious	Slightly serious	Not serious
		Percent distribution			
New patient	2,254	100.0	32.5	39.3	28.2
Patient seen before, new problem	2,709	100.0	16.8	42.2	41.1
Patient seen before, continuing problem	41,165	100.0	22.0	47.0	31.0

Table L. Number and percent distribution of office visits for coronary heart disease (410-413) by seriousness of problem, according to visit status: United States, 1975-76

Visit status	Number of visits in thousands	Total	Serious or very serious	Slightly serious	Not serious
		Percent distribution			
New patient	1,538	100.0	57.1	26.2	16.7
Patient seen before, new problem	2,220	100.0	52.1	23.8	24.1
Patient seen before, continuing problem	27,556	100.0	52.0	33.9	14.1

on the complexity of this scale is indicated. A cursory examination seems to indicate that the seriousness of patients' problems may have been judged on the basis of the patient's ability to function while receiving medical care. For example, if left untreated, essential benign hypertension has potentially very serious consequences. But patients who visit physicians and adhere to a treatment regimen ordinarily function very well (and it has been shown that most visits were made by returning patients with continuing problems). The frequent assignment of essential benign hypertension visits to a "not serious" or "slightly serious" category suggests that the basis for assignment might have been ability to function rather than amount of impairment that would result if the condition were not treated, since it is acknowledged that a great deal of impairment would result if essential benign hypertension were not treated or no care were available for it. A similar assumption could be made about other life-threatening diseases which were not frequently classified as "serious" or "very serious." While the proportion of coronary heart disease visits classified at the serious end of the scale was statistically greater than its opposite category, the difference between proportions of not serious and very serious visits was not as great as might be expected for a disease that is so often fatal without proper medical care. The slightly higher proportion designated "serious" or "very serious" could be due to the fact that patients complaining of shortness of breath and chest pain clearly do *not* function very well, which also suggests ability to function as a criterion for judging seriousness.

However, ability to function may be only one dimension of the multidimensional nature of the seriousness attribute. If a factor analytic approach to measurement of seriousness were taken, the results could differ considerably.

Duration of Visit

Visit duration is the amount of time spent by the physician in direct encounter with the patient as estimated by the physician. The mean contact duration is the average number of minutes per visit when the visit included a con-

tact with the physician. Thus, contact duration when only other staff was contacted is included in the survey but excluded from the calculation of the mean.

Time spent by the physician is an important factor in patient management and is a useful index of medical care utilization by the public. Although some visits require and consume much of the physician's time, others do not. This is not to imply that care is not rendered. In the framework of the NAMCS definition, visits may use none of the physician's time, but treatment may have been appropriately delegated to the physician's staff. Physicians also devote time to patient care that is not necessarily performed in the presence of the patient, such as evaluating test results, reading X-rays, reviewing histories, and consulting with other physicians. Duration estimates for principal diagnoses are presented for comparative purposes and not as the total time spent in patient care.

Table 11 lists the mean contact durations for selected circulatory problems. For proper interpretation of these estimates, the standard errors also shown in table 11 should be taken into consideration using appropriate methodology.[i] For each disease, table 11 provides mean contact duration separately for patient age, sex, and visit status.

The mean contact duration of all NAMCS visits was 15.3 minutes (±0.2 minutes). The average duration of visits for heart disease was significantly longer than the overall average, but visits for hypertension, cerebrovascular disease, and other diseases of the circulatory system took about the average time.

The average time spent in treating patients for some disorders was affected by patient status (new or returning) in some cases, and by problem status (new or recurring) in others. When hypertension was presented as a new problem to the physician, either during an initial encounter or on a return visit, the visit lasted longer (24.0 minutes and 18.7 minutes, respectively) than did visits involving returning patients with hypertension as a continuing problem (13.5 minutes). The duration of the new-patient encounter was significantly longer than that of the returning patient with a new problem. Initial visits for ischemic heart disease (acute or chronic) and symptomatic heart disease were, on the average, longer than visits in which the patient had previously consulted the physician. New patients seeking treatment for angina pectoris and cerebrovascular disease also required more time than patients returning for continuing care of these problems required. Differences among types of visits for other diagnoses were not statistically significant.

The longer duration of initial encounters for some circulatory diseases may be due to the need for more intensive workup in new-patient visits. For example, 57 percent of all initial visits for hypertension included a general examination as opposed to 23 percent of return visits for a new problem and only 10 percent of visits for an old problem.

Disposition of Visit

Continuity of care is an important aspect of patient management especially for the aging and chronically ill. The intent of physicians regarding ongoing care is reflected by the disposition of the visit. Office-based physicians treating patients for the most frequently reported diseases of the circulatory system concluded the majority of visits with instructions to return at a specified time. Patient compliance with these instructions was shown in the high proportions of visits that included patients returning for further treatment (table 10). For each diagnosis listed, visits that culminated in instructions to return at a specified time were proportionately comparable with return visits for treatment of continuing problems.

Instructions were not disproportionately given to males and females making visits for hypertension and coronary heart disease. Neither did age make a significant difference insofar as the proportions of visits with these instructions was concerned (tables H and J).

Attesting to the asymptomatic nature of most visits made for essential benign hypertension, the disposition of very few visits was admittance to a hospital. As might be expected, a higher proportion of acute ischemic heart disease patients (14 percent) were recommended

[i]See appendix I for "Estimates of differences between two statistics."

for hospitalization than were those with other forms of heart disease.

The seriousness of the patient's problems appeared to be related to the physician's followup decision in hypertension and coronary heart disease visits. Proportions of visits in which no followup was planned became progressively smaller as the problem became more serious (table M). For example, no followup was planned in 4 percent of all visits for hypertension judged not serious as opposed to 2 percent of visits for hypertension judged serious or very serious. For coronary heart disease, the contrast was even broader. For those visits evaluated as not serious no followup was scheduled in seven of ten visits compared with less than one in ten of those considered serious or very serious. Conversely, proportions of hypertension visits that included instructions to return at a specified time grew progressively larger as the problem increased in seriousness. For coronary heart disease, any increase in seriousness also warranted instructions to return at a specified time. The more casual instruction, "return if needed," was used more frequently following visits judged not serious than after those of a more serious nature.

Table M. Percent of office visits for essential benign hypertension (401) and coronary heart disease (410-413), by disposition of visit and seriousness of problem: United States, 1975-76

Diagnosis, ICDA code,[1] and seriousness of problem	No followup planned	Return at specified time	Return if needed
	Percent		
Essential benign hypertension (401)			
Serious or very serious	1.7	90.0	6.8
Slightly serious	2.2	88.0	9.2
Not serious	3.8	80.5	14.2
Coronary heart disease (410-413)			
Serious or very serious	0.6	87.2	6.8
Slightly serious	1.4	88.1	7.8
Not serious	6.6	79.2	14.2

[1]Diagnostic groupings and code inclusions are based on the *Eighth Revision International Classification of Diseases, Adapted for Use in the United States, 1965.*

Referral

About 3 percent of patient visits for diseases of the circulatory system were referred to other physicians; this was close to the average for all ICDA groups. Only about 2 percent of all essential benign hypertension visits and 3 percent of all coronary heart disease visits were referred. General and family practitioners referred 4 percent of their total visits for essential benign hypertension and coronary heart disease to other physicians or agencies. For internists, the referral rate for these two diagnoses was 2 percent.

Diagnostic-Therapeutic Services

The NAMCS was designed to produce data on the diagnostic and therapeutic services ordered or provided by the physician during the current visit. The Patient Record did not have the flexibility to probe whether procedures were single or multiple. Therefore, estimates provide information about the general nature rather than the extent of the physician's workup. For example, if "clinical lab test" was checked on the form it was not known whether a blood test alone was performed or whether blood, urine, and sputum tests were ordered. Similarly, an indication of "X-ray" provided no clue as to the number or site(s) of X-rays taken during a single visit. As a result, total estimates of clinical lab tests or X-rays indicate the number of each *type* of service rather than the total number of all such services. Estimates of services that are usually rendered once during a visit such as a history or examination, EKG, or blood pressure check, are closer to the actual number of times each was done. This caveat also applies to therapeutic services such as drug prescription and injection which could be single or multiple.

Number of services.—The number of different types of services is a useful indicator of ambulatory medical care utilization by patients presenting different conditions. In general, physicians tended to order or provide a higher than average number of types of services during most visits made for diseases of the circulatory system, while such visits in which no services were provided were less than the average number for all NAMCS visits. Except for diagnoses of

Table N. Percent distribution of office visits for diseases of the circulatory system by number of types of diagnostic and therapeutic services ordered or provided, according to selected principal diagnoses: United States, 1975-76

Principal diagnosis and ICDA code[1]	Total	No services	One type of service	Two types of services	Three types of services or more
	Percent distribution				
All principal diagnoses	100.0	2.5	26.0	30.6	40.9
Essential benign hypertension .401	100.0	0.8	16.1	28.3	54.8
Acute ischemic heart disease .410-411	100.0	0.3	9.7	17.9	72.1
Chronic ischemic heart disease .412	100.0	0.7	10.8	23.6	64.9
Angina pectoris .413	100.0	0.3	9.6	16.5	73.7
Symptomatic heart disease .427	100.0	0.9	12.3	24.1	62.8
Cerebrovascular disease .430-438	100.0	0.9	14.2	26.7	58.3
Arteriosclerosis .440	100.0	1.0	17.9	24.2	57.0
Phlebitis and thrombophlebitis .451	100.0	0.8	14.6	32.4	52.2
Varicose veins of lower extremities .454	100.0	1.3	38.8	26.5	33.4
Hemorrhoids .455	100.0	2.6	31.9	33.8	31.7

[1]Diagnostic groupings and code inclusions are based on the *Eighth Revision International Classification of Diseases, Adapted for Use in the United States, 1965.*

varicose veins of lower extremities and hemorrhoids, visits for the diagnoses listed in table N included higher than average proportions of visits characterized by three types of services or more. These proportions clearly exceeded those of the same diseases in which two services or less were included.

Selected diagnostic services.—Tables O and P relate specific diagnostic and therapeutic services to visits for the most frequently diagnosed circulatory diseases. For visits diagnosed "hypertension" and "coronary heart disease," tables Q and R link patient management, exemplified by diagnostic and therapeutic services, to patient condition, as evidenced by visit status and problem seriousness. Provision of services according to sex and age of patients visiting for essential benign hypertension and coronary heart disease is described in tables S and T.

The limited history and examination was clearly the preferred method of gathering basic data by physicians since about half or more visits for the various circulatory disorders included this type of procedure. The comprehensive general history and examination was used more often when the diagnosis was heart disease or cerebrovascular disease than when other circulatory disorders were diagnosed. The less liberal use of the general history and examination than the limited type during all visits for diseases of the circulatory system is reasonable in view of the high rate of return visits. The more comprehensive examination was used in 57 percent of visits when new patients were diagnosed as having essential benign hypertension in contrast to only 10 percent when such hypertension was a recurring problem. It was also more frequently chosen for initial visits due to coronary heart disease (68 percent) than for such "old"-problem visits (13 percent). On the other hand, the limited history and examination was more often selected as the appropriate type when the physician had seen essential benign hypertension and coronary heart disease patients before, whether for new or recurring problems. It appears that less exhaustive examinations were necessary when physicians had prior knowledge of or medical records for returning patients.

Predictably, EKG's were used more often during heart disease visits than when other circulatory diseases were principal diagnoses. Heart activity was tested more often during coronary heart disease new-problem visits than during visits in which that disorder was a recurring problem. However, EKG's were used sparingly in the *absence* of hypertension, coronary

Table O. Number and percent of office visits for selected diseases of the circulatory system, by diagnostic and therapeutic services ordered or provided: United States, 1975-76

Diagnostic or therapeutic service	Essential benign hypertension (401)	Coronary heart disease (410-413)	Symptomatic heart disease (427)	Cerebrovascular disease (430-438)
	Number of visits in thousands			
All visits	46,128	31,314	7,052	4,505
	Percent[1]			
Diagnostic services:				
Limited history and examination	54.9	62.9	61.6	62.2
General history and examination	12.8	16.2	20.8	18.4
Laboratory procedure or test	20.6	25.4	23.9	25.2
X-ray	4.7	7.0	10.4	*5.9
Blood pressure check	79.9	76.6	67.2	71.7
Electrocardiogram	7.7	25.8	32.7	*6.7
Therapeutic services:				
Drug administered or prescribed[2]	61.0	55.6	55.9	52.1
Injection or immunization	9.8	12.1	13.2	12.8
Medical counseling and psychotherapy or therapeutic listening	16.6	21.2	16.4	21.0
Other services[3]	5.0	5.9	7.3	7.7

[1]Percents will not add to 100.0 because most patient visits required the provision of more than 1 treatment or service.
[2]Includes prescription and nonprescription drugs.
[3]Includes no services rendered, hearing test. vision test, endoscopy, office surgery, physiotherapy, and other services.

Table P. Number and percent of office visits for selected diseases of the circulatory system, by most frequent diagnostic and therapeutic services ordered or provided: United States, 1975-76

Diagnostic or therapeutic service	Arteriosclerosis (440)	Phlebitis and thrombophlebitis (451)	Varicose veins of lower extremities (454)	Hemorrhoids (455)
	Number of visits in thousands			
All visits	2,019	2,930	2,428	3,686
	Percent[1]			
Limited history and examination	62.3	68.3	53.8	48.6
Blood pressure check	58.6	50.3	27.1	28.5
Laboratory procedure or test	*16.9	28.3	*8.5	*8.1
Endoscopy	...	...	...	22.3
Drug administered or prescribed[2]	61.5	56.6	36.9	42.8
Medical counseling and psychotherapy or therapeutic listening	27.5	20.6	23.6	*11.2

[1]Percents will not add to 100.0 because most patient visits required the provision of more than 1 treatment or service.
[2]Includes prescription and nonprescription drugs.

Table Q. Number and percent of office visits for essential benign hypertension (401), by visit status, seriousness of problem, and diagnostic and therapeutic services ordered or provided: United States, 1975-76

Diagnostic or therapeutic service	Visit status			Seriousness of problem		
	New patient	Patient seen before		Serious or very serious	Slightly serious	Not serious
		New problem	Continuing problem			
	Number of visits in thousands					
All visits	2,254	2,709	41,165	10,244	21,373	14,510
	Percent[1]					
Limited history and examination	28.3	56.9	56.2	55.0	56.4	52.5
General history and examination	56.7	22.8	9.8	16.5	11.1	12.8
Laboratory procedure or test	43.1	34.6	18.4	23.4	19.8	19.6
X-ray	21.7	*8.0	3.6	6.3	3.7	5.1
Blood pressure check	78.6	73.3	80.4	79.2	82.2	77.1
Electrocardiogram	22.7	*19.8	6.1	10.5	7.0	6.7
Drug administered or prescribed[2]	57.0	62.5	61.1	63.3	63.8	55.3
Injection or immunization	*3.1	*5.0	10.5	11.2	9.4	9.5
Medical counseling	*11.6	*15.3	14.8	17.4	15.3	11.7
Other[3]	*16.6	*7.7	5.0	7.1	5.4	6.7

[1]Percents will not add to 100.0 because most patient visits required the provision of more than 1 treatment or service.
[2]Includes prescription and nonprescription drugs.
[3]Includes hearing test, vision test, endoscopy, office surgery, physiotherapy, psychotherapy or therapeutic listening, and other services.

heart disease, and symptomatic heart disease (table U).

Electrocardiograms were also more likely to be used during coronary heart disease visits evaluated as "serious" or "very serious" than when the problem was less serious.

X-rays appear to have been used with restraint during visits for circulatory diseases, occurring more frequently during hypertension and coronary heart disease new-problem visits than in visits for recurring problems.

Clinical laboratory tests were ordered in about 1 in 4 visits for coronary heart disease, symptomatic heart disease, cerebrovascular disease, and phlebitis and thrombophlebitis; and about 1 in 5 hypertension visits. Use of laboratory tests did not differ significantly among types of visits when coronary heart disease was the diagnosis. However, laboratory tests were less likely to be ordered for patients presenting hypertension as a recurring problem.

In general, the data pointed to a tendency of physicians to use EKG's, X-rays, and laboratory tests conservatively. For the two leading diagnoses (essential benign hypertension and coronary heart disease), emphasis was placed on providing most services during first visits.

Patient sex and age were not deciding factors in the use of examinations, X-rays, or lab tests. Patients under 65 years of age were more likely than older patients were to have heart activity measured by EKG during visits made for coronary heart disease, but differences by sex were not statistically significant.

Blood pressure measurement.—Blood pressure measurement is an efficient and economical diagnostic tool. It was used more often during visits made for diseases of the circulatory system than for any other ICDA group. About 8 of 10 visits for essential benign hypertension and coronary heart disease included blood pressure checks, and about 7 of 10 for cerebrovascular disease (table O). Blood pressure was measured less often for diseases of the arteries and veins than for other types of circulatory system diseases.

Table R. Number and percent of office visits for coronary heart disease (410-413), by visit status, seriousness of problem, and diagnostic and therapeutic services ordered or provided: United States, 1975-76

Diagnostic or therapeutic service	Visit status			Seriousness of problem		
	New patient	Patient seen before		Serious or very serious	Slightly serious	Not serious
		New problem	Continuing problem			
	Number of visits in thousands					
All visits	1,538	2,220	27,556	16,357	10,284	4,673
	Percent[1]					
Limited history and examination	22.9	58.9	65.4	65.5	61.3	57.2
General history and examination	67.5	25.1	12.6	16.8	15.0	16.6
Laboratory procedure or test	41.4	26.8	24.4	26.2	25.8	22.0
X-ray	31.6	14.8	5.0	7.3	7.3	5.1
Blood pressure check	79.1	70.4	76.9	75.9	77.3	77.1
Electrocardiogram	56.7	42.4	22.7	31.3	21.0	17.0
Drug administered or prescribed[2]	40.6	52.8	56.7	58.1	53.8	50.7
Injection or immunization	2.0	11.0	12.7	11.6	13.5	10.4
Medical counseling	21.5	15.6	18.2	21.5	16.4	10.4
Other[3]	13.3	4.6	8.3	7.9	8.6	9.0

[1]Percents will not add to 100.0 because most patient visits required the provision of more than 1 treatment or service.
[2]Includes prescription and nonprescription drugs.
[3]Includes hearing test, vision test, endoscopy, office surgery, physiotherapy, psychotherapy or therapeutic listening, and other services.

Table S. Number and percent of office visits for essential benign hypertension (401), by sex and age of patient and diagnostic and therapeutic services ordered or provided: United States, 1975-76

Diagnostic or therapeutic service	Sex		Age	
	Female	Male	Under 65 years	65 years and over
	Number of visits in thousands			
All visits	29,287	16,840	29,596	16,532
	Percent[1]			
Limited history and examination	55.1	54.5	53.7	57.0
General history and examination	12.5	13.4	14.4	10.1
Laboratory procedure or test	20.9	19.9	20.3	21.0
X-ray	4.2	5.5	5.2	3.8
Blood pressure check	79.7	80.2	79.4	80.8
Electrocardiogram	6.7	9.4	8.9	5.5
Drug administered or prescribed[2]	63.1	57.4	60.7	61.5
Injection or immunization	11.6	6.7	9.4	10.6
Medical counseling	14.5	14.9	16.4	11.4
Psychotherapy or therapeutic listening	2.2	*1.6	2.1	*1.7
Other[3]	3.7	5.0	4.2	4.2

[1]Percents will not add to 100.0 because most patient visits required the provision of more than 1 treatment or service.
[2]Includes prescription and nonprescription drugs.
[3]Includes hearing test, vision test, endoscopy, office surgery, physiotherapy, and other services.

Table T. Number and percent of office visits for coronary heart disease (410-413), by sex and age of patient and diagnostic and therapeutic services ordered or provided: United States, 1975-76

Diagnostic or therapeutic service	Sex		Age	
	Female	Male	Under 65 years	65 years and over
	Number of visits in thousands			
All visits	14,828	16,485	14,093	17,221
	Percent[1]			
Limited history and examination	64.1	61.8	60.8	64.6
General history and examination	15.6	16.7	18.5	14.3
Laboratory procedure or test	24.2	26.5	25.1	25.7
X-ray	6.9	7.0	8.2	5.9
Blood pressure check	76.6	76.6	78.4	75.1
Electrocardiogram	22.5	28.8	30.9	21.6
Drug administered or prescribed[2]	58.4	53.1	52.1	58.5
Injection or immunization	15.4	9.0	8.5	15.0
Medical counseling	16.8	19.4	19.5	17.1
Psychotherapy or therapeutic listening	*3.1	*3.0	*3.7	*2.5
Other[3]	4.7	5.7	5.4	5.1

[1]Percents will not add to 100.0 because most patient visits required the provision of more than 1 treatment or service.
[2]Includes prescription and nonprescription drugs.
[3]Includes hearing test, vision test, endoscopy, office surgery, physiotherapy, and other services.

Table U. Percent of office visits by selected diagnostic and therapeutic services ordered or provided in the presence and absence of selected principal diagnoses: United States, 1975-76

Principal diagnosis and ICDA code[1]	Blood pressure check	Electrocardiogram	X-ray	Laboratory procedure or test	Drugs, prescription and nonprescription
	Percent				
Essential benign hypertension (401):					
Present	79.9	7.7	4.7	20.6	61.0
Absent	31.2	3.2	7.7	22.9	42.8
Coronary heart disease (410-413):					
Present	76.6	25.8	7.0	25.4	55.6
Absent	32.0	2.7	7.6	22.7	43.2
Symptomatic heart disease (427):					
Present	67.2	32.7	10.4	23.9	55.9
Absent	33.0	3.2	7.5	22.8	43.5
Cerebrovascular disease (430-438):					
Present	71.7	6.7	5.9	25.2	52.1
Absent	33.0	3.3	7.6	22.8	43.5

[1]Diagnostic groupings and code inclusions are based on the *Eighth Revision International Classification of Diseases, Adapted for Use in the United States, 1965.*

The recognition of the importance of continuous blood pressure monitoring for patients suffering essential benign hypertension and coronary heart disease is evident in the almost equal proportions of blood pressure measurements included in new- and return-patient visits (tables Q and R).

It was observed that only about one-third of the visits for *diagnoses other than diseases of the circulatory system* included blood pressure measurement. The data also showed that although such measurement was included very frequently in the presence of hypertension, it was not as often included in its absence. Figure 8 illustrates the dramatic differences in blood pressure measurement between visits in which essential benign hypertension was present (as principal, second, or third diagnosis) and those in which it was not listed as a diagnosis. The procedure was included in visits from males and females alike when essential benign hypertension was present, but without such diagnosis, the blood pressure of females was more often measured than was the blood pressure of males. This was probably due to more frequent measurement of blood pressure for female patients during the childbearing years. Blood pressure measurement during nonhypertension visits increased with age, but was not dependent on age if essential benign hypertension was present.

Although essential benign hypertension visits were the prime targets for blood pressure meas-

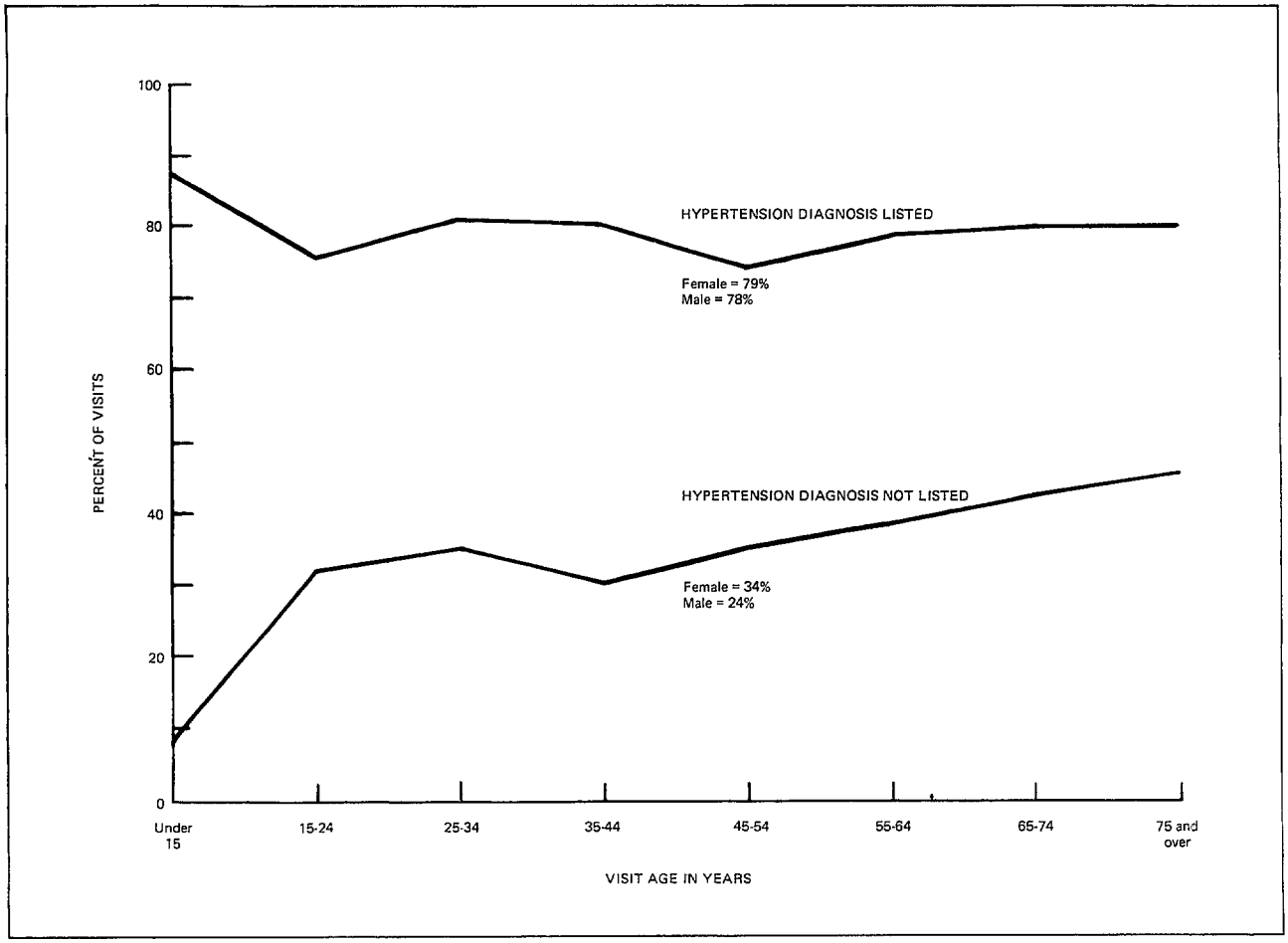


Figure 8. Percent of office visits that included blood pressure measurement in the presence and absence of hypertension, by visit age: United States, 1975-76

urement, such monitoring was also done with great frequency for heart disease and cerebrovascular disease visits as shown in table U. However, the significantly decreased use of such measurement in the absence of these diseases deserves comment.

Periodic blood pressure measurement is important both in treating essential benign hypertension and as a screening device to detect the disease. The Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure has recommended that all health care professionals routinely take a patient's blood pressure regardless of the patient's reason for visit.[24] Physician visits would appear to be the logical environment for implementation of this recommendation, but according to NAMCS data the suggestion has not yet been widely adopted.[25]

It should be noted that some underreporting of blood pressure measurement in NAMCS may have produced estimates somewhat lower than the actual number of measurements made. Visits often include a general examination in which blood pressure is routinely checked. A review of data for essential benign hypertension visits which included general examinations revealed that blood pressure was separately recorded (as it was supposed to be) in 85 percent of such visits. This may be an indication of underreporting, or such measurement may have really been omitted in some examinations (although it is not likely). In any case, underreporting probably accounted for only a small part of the fewer number of blood pressure checks during some visits than in others. Furthermore, there does not appear to be any systematic bias connected with such underreporting.

Selected therapeutic services.—Drugs were a highly frequent form of therapy during most visits made for diseases of the circulatory system. Except for varicose veins of the lower extremities and hemorrhoids, drugs were prescribed or administered in over half of visits for the most frequently diagnosed circulatory diseases.

Drugs were prescribed more often when hypertension, coronary heart disease, and symptomatic heart disease were present than when they were absent, but seriousness of the problem, or patient sex or age did not affect the decision.

Medical counseling frequency did not differ significantly by sex for the disease groups essential benign hypertension and coronary heart disease. Hypertensive patients less than 65 years of age were counseled more often than were older patients with that disorder.

REFERENCES

[1]National Center for Health Statistics: National Ambulatory Medical Care Survey: Background and methodology, United States, 1967-72, by J. B. Tenney, K. L. White, and J. W. Williamson. *Vital and Health Statistics.* Series 2-No. 61. DHEW Pub. No. (HRA) 74-1335. Health Resources Administration. Washington. U.S. Government Printing Office, Apr. 1974.

[2]National Center for Health Statistics: The National Ambulatory Medical Care Survey: 1975 Summary, United States, January-December 1975, by H. Koch and T. McLemore. *Vital and Health Statistics.* Series 13-No. 33. DHEW Pub. No. (PHS) 78-1784. Public Health Service. Washington. U.S. Government Printing Office, Jan. 1978.

[3]National Center for Health Statistics: 1976 Summary: National Ambulatory Medical Care Survey, by H. Koch, R. Gagnon, and T. Ezzati. *Advance Data From Vital and Health Statistics,* No. 30. DHEW Pub. No. (PHS) 78-1250. Public Health Service. Hyattsville, Md., July 13, 1978.

[4]National Center for Health Statistics: Office visits for hypertension, National Ambulatory Medical Care Survey: United States, January 1975-December 1976, by B. K. Cypress. *Advance Data From Vital and Health Statistics,* No. 28. DHEW Pub. No. (PHS) 78-1250. Public Health Service. Hyattsville, Md., Apr. 28, 1978.

[5]National Center for Health Statistics: Office visits to dermatologists, National Ambulatory Medical Care Survey: United States, January 1975-December 1976, by H. Koch and T. McLemore. *Advance Data From Vital and Health Statistics,* No. 37. DHEW Pub. No. (PHS) 78-1250. Public Health Service. Hyattsville, Md., Aug. 29, 1978.

[6]National Center for Health Statistics: Office visits to orthopedic surgeons, National Ambulatory Medical Care Survey: United States, January 1975-December 1976, by H. Koch. *Advance Data From Vital and Health Statistics,* No. 33. DHEW Pub. No. (PHS) 78-1250. Public Health Service. Hyattsville, Md., July 18, 1978.

[7]National Center for Health Statistics: Office visits to ophthalmologists: National Ambulatory Medical Care Survey, United States, 1976, by H. Koch and T. Ezzati. *Advance Data From Vital and Health Statistics,* No. 31. DHEW Pub. No. (PHS) 78-1250. Public Health Service. Hyattsville, Md., July 14, 1978.

[8]National Center for Health Statistics: Office visits to doctors of osteopathy: National Ambulatory Medical Care Survey, United States, 1975, by H. Koch. *Advance Data From Vital and Health Statistics,* No. 25. DHEW Pub. No. (PHS) 78-1250. Public Health Service. Hyattsville, Md., Mar. 22, 1978.

[9]National Center for Health Statistics: Office visits to general surgeons: National Ambulatory Medical Care Survey, United States, 1975, by R. O. Gagnon. *Advance Data From Vital and Health Statistics,* No. 23. DHEW Pub. No. (PHS) 78-1250. Public Health Service. Hyattsville, Md., Mar. 24, 1978.

[10]National Center for Health Statistics: Office visits by persons aged 65 and over: National Ambulatory Medical Care Survey, United States, 1975, by R. O. Gagnon. *Advance Data From Vital and Health Statistics,* No. 22. DHEW Pub. No. (PHS) 78-1250. Public Health Service. Hyattsville, Md., Mar. 22, 1978.

[11]National Center for Health Statistics: Office visits to obstetrician-gynecologists: National Ambulatory Medical Care Survey, United States, 1975, by T. Ezzati. *Advance Data From Vital and Health Statistics,* No. 20. DHEW Pub. No. (PHS) 78-1250. Public Health Service. Hyattsville, Md., Mar. 13, 1978.

[12]National Center for Health Statistics: Office visits to internists: National Ambulatory Medical Care Survey, United States, 1975, by B. K. Cypress. *Advance Data From Vital and Health Statistics,* No. 16. DHEW Pub. No. (PHS) 78-1250. Public Health Service. Hyattsville, Md., Feb. 7, 1978.

[13]National Center for Health Statistics: National Ambulatory Medical Care Survey of visits to general and family practitioners, January-December 1975, by B. K. Cypress. *Advance Data From Vital and Health Statistics,* No. 15. DHEW Pub. No. (PHS) 78-1250. Public Health Service, Hyattsville, Md., Dec. 14, 1977.

[14]National Center for Health Statistics: Ambulatory medical care rendered in pediatricians' offices during 1975, by T. Ezzati. *Advance Data From Vital and Health Statistics,* No. 13. DHEW Pub. No. (HRA) 77-1250. Health Resources Administration. Hyattsville, Md., Oct. 13, 1977.

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

[16]National Center for Health Statistics: Physician visits: Volume and interval since last visit, United States, 1971, by K. M. Danchik. *Vital and Health Statistics.* Series 10-No. 97. DHEW Pub. No. (HRA) 75-1524. Health Resources Administration. Washington. U.S. Government Printing Office, Mar. 1975.

[17]Goodman, L. J., and Mason, H. R.: *Physician Distribution and Medical Licensure in the U.S. 1975.* Chicago: Center for Health Services Research and Development, American Medical Association, 1976.

[18]National Institutes of Health: Some characteristics related to the incidence of cardiovascular disease and death: Framingham Study, 16 year follow-up, by D. Shurtleff, in W. B. Kannel and T. Gordon, eds, *The Framingham Study.* Pub. No. 74-599. Public Health Service. Washington. U.S. Government Printing Office, 1974.

[19]National Center for Health Statistics: *Vital Statistics of the United States, 1975,* Vol. II, Part B. DHEW Pub. No. (PHS) 78-1102. Public Health Service. Washington. U.S. Government Printing Office, 1977.

[20]Kannel, W. B., Wolf, P. A., Verter, J., and McNamara, P. M.: Epidemiologic assessment of the role of blood pressure in stroke, the Framingham Study. *J.A.M.A.* 214(2): 301-310, Oct. 1970.

[21]National Center for Health Statistics: Annual summary for the United States, 1976: Births, deaths, marriages, and divorces. *Monthly Vital Statistics Report.* Vol. 25, No. 13. DHEW Pub. No. (PHS) 78-1120. Public Health Service. Hyattsville, Md., Dec. 12, 1977.

[22]National Center for Health Statistics: Blood pressure levels of persons 6-74 years, United States, 1971-1974, by J. Roberts and K. Maurer. *Vital and Health Statistics.* Series 11-No. 203. DHEW Pub. No. (HRA) 78-1648. Health Resources Administration. Washington. U.S. Government Printing Office, Sept. 1977.

[23]National Center for Health Statistics: The National Ambulatory Medical Care Survey: Symptom classification, by S. Meads and T. McLemore. *Vital and Health Statistics.* Series 2-No. 63. DHEW Pub. No. (HRA) 74-1337. Health Resources Administration. Washington. U.S. Government Printing Office, May 1974.

[24]National Heart, Lung, and Blood Institute: Report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure. DHEW Pub. No. (NIH) 77-1088. National Institutes of Health, Bethesda, Md.

[25]Cypress, B. K.: The role of ambulatory medical care in hypertension screening. *Am. Pub. Health Assoc. J.* (In press).

[26]National Center for Health Statistics: Replication: An approach to the analysis of data from complex surveys, by P. J. McCarthy. *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.

[27]National Center for Health Statistics: Pseudoreplication: Further evaluation and application of the balanced half-sample technique, by P. J. McCarthy. *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.

LIST OF DETAILED TABLES

1. Number, percent distribution, and average annual rate of office visits for diseases of the circulatory system, by age, sex, and race of patient: United States, 1975-76 31

2. Number and percent distribution of office visits for diseases of the circulatory system by type of practice, according to geographic region and metropolitan and nonmetropolitan areas, with average annual visit rates: United States, 1975-76 32

3. Number and percent distribution of office visits for diseases of the circulatory system by age, sex, and race of patient, according to selected principal diagnoses: United States, 1975-76 32

4. Median visit age and standard error of the median for diseases of the circulatory system, by sex and race of patient and selected principal diagnoses: United States, 1975-76 33

5. Number, percent distribution, and average annual rate of office visits for diseases of the circulatory system by geographic region, metropolitan and nonmetropolitan areas, and type of practice, according to selected principal diagnoses: United States, 1975-76 33

6. Number, percent distribution, and average annual rate of office visits for essential benign hypertension (401), by most frequently visited specialty, geographic region, metropolitan and nonmetropolitan areas, and type of practice: United States, 1975-76 34

7. Number, percent distribution, and average annual rate of office visits for coronary heart disease (410-413), by most frequently visited specialty, geographic region, metropolitan and nonmetropolitan areas, and type of practice: United States, 1975-76 34

8. Number and percent of office visits for essential benign hypertension (401), by sex, age, and most frequent principal problem of patient: United States, 1975-76 35

9. Number and percent of office visits for coronary heart disease (410-413), by sex, age, and most frequent principal problem of patient: United States, 1975-76 35

10. Number and percent distribution of office visits for diseases of the circulatory system by problem status, seriousness of problem, and disposition of visit, according to selected principal diagnoses: United States, 1975-76 36

11. Mean contact duration and standard error of mean contact duration of office visits for diseases of the circulatory system, by age and sex of patient, visit status, and selected principal diagnoses: United States, 1975-76 36

12. Mean contact duration and standard error of mean contact duration of office visits for diseases of the circulatory system, by age of patient, visit status, and selected principal diagnoses: United States, 1975-76 37

Table 1. Number, percent distribution, and average annual rate of office visits for diseases of the circulatory system, by age, sex, and race of patient: United States, 1975-76

Sex and race	Number of visits in thousands	All ages	Under 35 years	35-44 years	45-54 years	55-64 years	65-74 years	75 years and over
		Percent distribution						
All visits	110,617	100.0	6.8	7.0	17.4	25.0	26.8	17.0
Female	62,656	100.0	6.3	6.5	15.8	23.3	28.2	20.0
Male	47,961	100.0	7.4	7.8	19.4	27.1	25.0	13.2
White	99,834	100.0	6.3	6.7	16.9	24.9	27.4	17.8
Female	55,789	100.0	5.7	6.0	14.8	23.6	28.8	21.1
Male	44,044	100.0	7.1	7.6	19.5	26.6	25.5	13.7
Black and other[1]	10,783	100.0	11.2	10.4	21.8	25.2	22.0	9.4
Female	6,866	100.0	11.4	10.6	23.4	20.7	23.3	10.5
Male	3,916	100.0	*10.8	*10.1	19.1	33.0	19.7	*7.4
		Visit rate per 1,000 in population						
All visits	...	265.1	30.8	174.4	411.5	703.9	1,088.2	1,199.9
Female	...	290.2	32.2	174.7	408.6	703.8	1,143.8	1,272.4
Male	...	238.3	29.4	174.0	414.7	704.1	1,015.5	1,078.3
White	...	275.4						
Female	...	298.5	30.5	165.5	386.1	704.2	1,147.9	1,307.0
Male	...	250.8	30.2	175.7	426.1	699.7	1,052.6	1,137.3
Black and other	...	197.3						
Female	...	236.6	41.6	234.1	583.4	700.4	1,104.4	888.2
Male	...	152.8	*24.3	*161.1	316.8	746.7	671.2	*517.9

[1]About 87 percent were visits by members of the black race.

Table 2. Number and percent distribution of office visits for diseases of the circulatory system by type of practice, according to geographic region and metropolitan and nonmetropolitan areas, with average annual visit rates: United States, 1975-76

Geographic region and area	Number of visits in thousands	All types of practice	Solo	Other[1]	Average annual visit rate per 1,000 in population
		Percent distribution			
All visits	110,617	100.0	65.2	34.8	265.1
Geographic region					
Northeast	29,594	100.0	75.5	24.5	302.9
North Central	30,334	100.0	68.6	31.4	270.5
South	31,627	100.0	59.7	40.3	235.3
West	19,061	100.0	52.9	47.1	261.2
Area					
Metropolitan	80,632	100.0	62.7	37.3	281.8
Nonmetropolitan	29,984	100.0	71.9	28.1	228.8

[1]Includes group and partnership arrangements.

Table 3. Number and percent distribution of office visits for diseases of the circulatory system by age, sex, and race of patient, according to selected principal diagnoses: United States, 1975-76

Principal diagnosis and ICDA code[1]	Number of visits in thousands	Total	Age						Sex		Race	
			Under 35 years	35-44 years	45-54 years	55-64 years	65-74 years	75 years and over	Female	Male	White	Black and other
		Percent distribution										
Essential benign hypertension 401	46,128	100.0	5.9	8.2	19.9	30.2	25.2	10.6	63.5	36.5	87.6	12.4
Acute ischemic heart disease 410-411	2,319	100.0	*2.1	*6.9	21.2	26.4	29.9	*13.5	42.9	57.1	94.0	6.0
Chronic ischemic heart disease 412	26,020	100.0	*1.2	3.6	14.3	23.2	31.3	26.4	47.8	52.2	92.2	7.8
Angina pectoris 413	2,975	100.0	*2.1	*3.2	28.9	25.0	28.2	*12.6	47.0	53.0	92.5	7.5
Symptomatic heart disease 427	7,052	100.0	9.0	*6.7	11.0	18.6	31.2	23.6	51.1	48.9	91.5	8.5
Cerebrovascular disease 430-438	4,505	100.0	*2.0	*1.0	*10.6	18.1	29.3	38.9	49.6	50.4	94.0	6.0
Arteriosclerosis 440	2,019	100.0	*0.5	*4.5	*2.5	*12.1	29.8	50.6	63.4	36.6	94.7	5.3
Phlebitis and thrombophlebitis 451	2,930	100.0	*14.8	*12.2	23.3	20.1	21.6	*8.0	68.7	31.3	93.5	6.5
Varicose veins of lower extremities 454	2,428	100.0	*14.2	*13.6	21.9	25.7	*15.2	*9.3	81.5	18.5	93.2	6.8
Hemorrhoids 455	3,686	100.0	29.5	19.1	23.5	14.2	*10.6	*3.1	44.4	55.6	91.2	8.8

[1]Diagnostic groupings and code inclusions are based on the *Eighth Revision International Classification of Diseases, Adapted for Use in the United States, 1965.*

Table 4. Median visit age and standard error of the median for diseases of the circulatory system, by sex and race of patient and selected principal diagnoses: United States, 1975-76

Principal diagnosis and ICDA code[1]	Both sexes		Sex				Race			
			Female		Male		White		Black and other	
	Median visit age	Standard error of the median in years	Median visit age	Standard error of the median in years	Median visit age	Standard error of the median in years	Median visit age	Standard error of the median in years	Median visit age	Standard error of the median in years
Essential benign hypertension 401	63.6	0.7	62.0	0.8	57.6	0.9	60.8	0.7	56.8	1.9
Acute ischemic heart disease 410-411	62.5	3.4	64.9	4.7	60.1	4.7	63.2	3.5	*51.3	5.3
Chronic ischemic heart disease 412	67.5	0.8	70.5	1.0	64.1	1.4	67.8	0.8	62.3	1.5
Angina pectoris 413	61.3	3.0	63.6	5.1	59.6	3.9	61.9	3.3	*56.5	7.9
Symptomatic heart disease 427	66.5	1.4	66.7	3.0	66.5	1.9	67.1	1.6	60.5	7.8
Cerebrovascular disease 430-438	71.2	2.0	75.0	3.4	68.7	2.2	71.5	2.2	*67.8	6.2
Arteriosclerosis 440	75.1	1.8	75.1	3.4	75.1	4.6	75.1	2.9	*75.1	7.0
Phlebitis and thrombophlebitis 451	53.9	2.7	53.4	3.9	57.8	5.4	55.7	3.3	*49.0	16.4
Varicose veins of lower extremities 454	55.1	3.5	54.0	4.3	*58.6	7.9	55.0	0.5	*58.4	19.6
Hemorrhoids 455	45.6	3.1	45.9	4.5	45.4	4.4	45.9	3.3	*41.7	9.9

[1]Diagnostic groupings and code inclusions are based on the *Eighth Revision International Classification of Diseases, Adapted for Use in the United States, 1965.*

Table 5. Number, percent distribution, and average annual rate of office visits for diseases of the circulatory system by geographic region, metropolitan and nonmetropolitan areas, and type of practice, according to selected principal diagnoses: United States, 1975-76

Principal diagnosis and ICDA code[1]	Number of visits in thousands	Total	Region				Area		Type of practice	
			Northeast	North Central	South	West	Metropolitan	Nonmetropolitan	Solo	Other[2]
		Percent distribution								
Essential benign hypertension 401	46,128	100.0	27.0	29.0	28.0	16.1	71.7	28.3	69.7	30.3
Acute ischemic heart disease 410-411	2,319	100.0	*24.7	30.7	28.1	*16.5	70.2	29.8	64.9	35.2
Chronic ischemic heart disease 412	26,020	100.0	27.6	26.0	28.2	18.2	73.6	26.4	64.9	35.1
Angina pectoris 413	2,975	100.0	23.0	23.6	31.8	21.5	75.4	24.6	55.2	44.9
Symptomatic heart disease 427	7,052	100.0	24.9	24.1	33.2	17.9	73.5	26.6	53.9	46.1
Cerebrovascular disease 430-438	4,505	100.0	26.9	29.3	30.1	13.8	73.5	26.5	66.6	33.4
Arteriosclerosis 440	2,019	100.0	26.0	42.7	*19.3	*12.0	68.8	31.2	74.0	26.0
Phlebitis and thrombophlebitis 451	2,930	100.0	27.0	24.0	29.3	*19.6	74.6	25.4	63.6	36.4
Varicose veins of lower extremities 454	2,428	100.0	*23.4	*18.8	43.4	*14.3	73.4	26.6	52.3	47.7
Hemorrhoids 455	3,686	100.0	23.0	22.4	35.5	19.2	77.0	23.0	58.0	42.0
		Visit rate per 1,000 in population								
Essential benign hypertension 401	...	110.5	127.5	119.3	95.9	101.4	115.5	99.6	...	...
Acute ischemic heart disease 410-411	...	5.6	*5.9	6.4	4.8	*5.2	5.7	5.3	...	...
Chronic ischemic heart disease 412	...	62.3	73.6	60.2	54.6	64.9	66.9	52.4	...	...
Angina pectoris 413	...	7.1	7.0	6.3	7.0	8.8	7.8	5.6	...	...
Symptomatic heart disease 427	...	16.9	17.9	15.1	17.4	17.3	18.1	14.3	...	...
Cerebrovascular disease 430-438	...	10.8	12.4	11.8	10.1	8.5	11.6	9.1	...	...
Arteriosclerosis 440	...	4.8	*5.4	7.7	*2.9	*3.3	4.9	4.8	...	...
Phlebitis and thrombophlebitis 451	...	7.0	8.1	6.3	6.4	*7.9	7.6	5.7	...	...
Varicose veins of lower extremities 454	...	5.8	*5.8	*4.1	7.8	*4.8	6.2	4.9	...	...
Hemorrhoids 455	...	8.8	8.7	7.4	9.7	9.7	9.9	6.5	...	...

[1]Diagnostic groupings and code inclusions are based on the *Eighth Revision International Classification of Diseases, Adapted for Use in the United States, 1965.*
[2]Includes group and partnership arrangements.

Table 6. Number, percent distribution, and average annual rate of office visits for essential benign hypertension (401), by most frequently visited specialty, geographic region, metropolitan and nonmetropolitan areas, and type of practice: United States, 1975-76

Most frequently visited specialty	Number of visits in thousands	Total	Geographic region				Area		Type of practice	
			Northeast	North Central	South	West	Metropolitan	Nonmetropolitan	Solo	Other[1]
		Percent distribution								
General and family practice	27,179	100.0	22.9	32.8	29.9	14.4	62.9	37.1	75.9	24.1
Internal medicine	12,779	100.0	35.2	23.5	21.3	20.1	87.6	12.4	55.9	44.1
General surgery	2,190	100.0	*18.8	36.8	29.3	*15.0	66.8	33.2	76.4	23.6
Cardiovascular diseases	1,461	100.0	45.2	*8.2	*27.3	*19.3	98.5	*1.6	65.7	34.3
		Visit rate per 1,000 in population								
General and family practice	...	65.1	63.6	79.5	60.5	53.7	59.7	77.0	...	...
Internal medicine	...	30.6	46.0	26.8	20.2	35.1	39.1	12.1	...	...
General surgery	...	5.2	*4.2	7.2	4.8	*4.5	5.1	5.5	...	...
Cardiovascular diseases	...	3.5	6.8	*1.1	*3.0	*3.9	5.0	*0.2	...	...

[1]Includes group and partnership arrangements.

Table 7. Number, percent distribution, and average annual rate of office visits for coronary heart disease (410-413), by most frequently visited specialty, geographic region, metropolitan and nonmetropolitan areas, and type of practice: United States, 1975-76

Most frequently visited specialty	Number of visits in thousands	Total	Geographic region				Area		Type of practice	
			Northeast	North Central	South	West	Metropolitan	Nonmetropolitan	Solo	Other[1]
		Percent distribution								
General and family practice	14,920	100.0	21.3	27.8	31.9	19.0	61.3	38.7	72.1	27.9
Internal medicine	11,722	100.0	32.0	26.3	24.7	17.1	83.6	16.4	58.5	41.6
Cardiovascular diseases	3,089	100.0	36.1	*9.9	30.8	23.3	97.2	*2.9	38.5	61.5
		Visit rate per 1,000 in population								
General and family practice	...	35.7	32.5	37.0	35.4	38.9	31.9	44.1	...	...
Internal medicine	...	28.1	38.4	27.4	21.5	27.5	34.2	14.6	...	...
Cardiovascular diseases	...	7.4	11.4	*2.7	7.1	9.8	10.5	*0.7	...	...

[1]Includes group and partnership arrangements.

Table 8. Number and percent of office visits for essential benign hypertension (401), by sex, age, and most frequent principal problem of patient: United States, 1975-76

Principal problem and NAMCS code[1]	Number of visits in thousands	Percent of visits	Sex		Age	
			Female	Male	Under 65 years	65 years and over
			Number in thousands			
All principal problems	46,128	100.0	29,287	16,840	29,596	16,532
			Percent			
Progress visit 980, 985	18,336	39.8	37.2	44.2	40.8	37.9
Abnormally high blood pressure 205	12,582	27.3	27.0	27.7	27.5	26.9
Headache 056	2,759	6.0	6.6	4.9	6.4	5.1
Vertigo 069	2,471	5.4	5.6	4.9	4.6	6.7
Fatigue 004	1,216	2.6	3.2	*1.7	2.3	*3.2
General medical examination 900	973	2.1	*2.0	*2.2	2.2	*2.0
Nervousness 810	696	1.5	*1.7	*1.2	*1.6	*1.3

[1]Symptomatic groupings and code number inclusions are based on a symptom classification developed for use in NAMCS.

Table 9. Number and percent of office visits for coronary heart disease (410-413), by sex, age, and most frequent principal problem of patient: United States, 1975-76

Principal problem and NAMCS code[1]	Number of visits in thousands	Percent of visits	Sex		Age	
			Female	Male	Under 65 years	65 years and over
			Number in thousands			
All principal problems	31,314	100.0	14,828	16,485	14,093	17,221
			Percent			
Progress visit 980, 985	9,527	30.4	26.4	34.0	31.4	29.6
Chest pain 322	6,429	20.5	19.4	21.5	26.5	15.6
Other symptoms referable to cardiovascular system 220	2,073	6.6	7.4	5.9	5.8	7.3
Shortness of breath 306	1,978	6.3	7.4	5.4	4.0	8.2
Fatigue 004	1,632	5.2	6.7	3.8	*3.8	6.3
Abnormally high blood pressure 205	1,218	3.9	4.8	3.0	*3.2	4.5
Vertigo 069	830	2.7	3.0	2.3	*1.5	3.6
Pain, swelling, injury of lower extremities 400	678	2.2	*2.8	*1.6	*1.1	*3.1
Headache 056	608	1.9	*2.8	*1.1	*2.1	*1.9

[1]Symptomatic groupings and code number inclusions are based on a symptom classification developed for use in NAMCS.

Table 10. Number and percent distribution of office visits for diseases of the circulatory system by problem status, seriousness of problem, and disposition of visit, according to selected principal diagnoses: United States, 1975-76

Principal diagnosis and ICDA code[1]	Number of visits in thousands	Total	Problem status		Seriousness of problem		Disposition[2]			
			New problem	Continuing problem	Serious or very serious	Not serious or slightly serious	Return at specified time	Return if needed or telephone followup	Admit to hospital	Other[3]
		Percent distribution								
Essential benign hypertension 401	46,128	100.0	10.8	89.2	22.2	77.8	86.1	11.3	0.6	5.3
Acute ischemic heart disease 410-411	2,319	100.0	18.1	81.9	66.5	33.5	76.3	11.7	13.9	4.4
Chronic ischemic heart disease 412	26,020	100.0	10.3	89.7	50.5	49.5	87.8	8.7	2.1	5.3
Angina pectoris 413	2,975	100.0	22.4	77.6	56.3	43.7	81.1	13.8	2.6	13.3
Symptomatic heart disease 427	7,052	100.0	18.3	81.7	48.1	51.9	78.6	12.7	5.3	9.2
Cerebrovascular disease 430-438	4,505	100.0	15.2	84.8	49.3	50.8	78.7	14.4	5.4	7.7
Arteriosclerosis 440	2,019	100.0	19.2	80.8	38.9	61.1	70.0	22.7	2.0	13.5
Phlebitis and thrombophlebitis 451	2,930	100.0	29.0	71.0	53.3	46.7	72.9	16.0	8.7	8.3
Varicose veins of lower extremities 454	2,428	100.0	31.8	68.2	19.3	80.7	68.6	16.5	8.8	9.6
Hemorrhoids 455	3,686	100.0	52.8	47.2	13.7	86.3	51.1	30.0	6.1	18.8

[1]Diagnostic groupings and code inclusions are based on the *Eighth Revision International Classification of Diseases, Adapted for Use in the United States, 1965.*
[2]Percents will not add to 100.0 because some patient visits had more than 1 disposition.
[3]Includes no followup planned, referred to other physician, returned to referring physician, and other disposition.

Table 11. Mean contact duration and standard error of mean contact duration of office visits for diseases of the circulatory system, by age and sex of patient, visit status, and selected principal diagnoses: United States, 1975-76

Principal diagnosis and ICDA code[1]	All ages	Patient age		Patient sex		Visit status		
		Under 65 years	65 years and over	Female	Male	New patient	Patient seen before	
							New problem	Continuing problem
	Mean contact duration in minutes							
Essential benign hypertension 401	14.3	14.7	13.6	14.1	14.7	24.0	18.7	13.5
Acute ischemic heart disease 410-411	17.7	17.2	18.3	18.6	17.0	36.6	16.2	16.9
Chronic ischemic heart disease 412	16.9	17.3	16.6	16.9	16.9	29.8	20.2	16.0
Angina pectoris 413	18.7	18.3	19.3	18.8	18.6	29.5	23.4	16.5
Symptomatic heart disease 427	18.2	17.8	18.5	18.0	18.3	30.0	20.0	17.1
Cerebrovascular disease 430-438	15.8	16.6	15.5	15.4	16.3	28.4	20.4	14.7
Arteriosclerosis 440	16.1	20.7	15.0	17.0	14.6	26.1	18.5	14.5
Phlebitis and thrombophlebitis 451	14.6	14.9	14.0	14.5	14.8	22.5	15.9	13.3
Varicose veins of lower extremities 454	13.7	12.9	16.2	13.5	14.4	16.3	15.7	12.6
Hemorrhoids 455	16.1	15.6	19.1	16.5	15.7	19.0	15.1	15.3
	Standard error of mean contact duration in minutes							
Essential benign hypertension 401	0.29	0.35	0.33	0.32	0.40	1.62	1.12	0.29
Acute ischemic heart disease 410-411	0.91	1.18	1.30	1.64	0.93	7.26	2.67	0.88
Chronic ischemic heart disease 412	0.42	0.61	0.48	0.57	0.49	2.02	1.72	0.44
Angina pectoris 413	0.72	0.86	1.28	1.33	0.95	3.64	3.11	0.82
Symptomatic heart disease 427	0.63	0.82	0.77	0.66	0.99	3.57	1.55	0.61
Cerebrovascular disease 430-438	0.87	0.85	1.24	1.48	0.69	3.96	2.28	0.84
Arteriosclerosis 440	0.88	2.67	0.85	1.47	1.20	6.95	4.02	0.67
Phlebitis and thrombophlebitis 451	0.65	0.78	1.05	0.81	0.74	3.77	1.43	0.57
Varicose veins of lower extremities 454	1.27	1.43	1.39	1.57	0.74	3.49	2.20	1.16
Hemorrhoids 455	0.67	0.71	1.26	0.82	0.80	1.77	1.31	0.79

[1]Diagnostic groupings and code inclusions are based on the *Eighth Revision International Classification of Diseases, Adapted for Use in the United States, 1965.*

Table 12. Mean contact duration and standard error of mean contact duration of office visits for diseases of the circulatory system, by age of patient, visit status, and selected principal diagnoses: United States, 1975-76

Principal diagnosis and ICDA code[1]	Under 65 years			65 years and over		
		Patient seen before			Patient seen before	
	New patient	New problem	Continuing problem	New patient	New problem	Continuing problem
	Mean contact duration in minutes					
Essential benign hypertension 401	23.6	20.7	13.7	25.1	15.5	13.1
Acute ischemic heart disease 410-411	34.9	18.2	16.1	39.0	14.1	18.1
Chronic ischemic heart disease 412	29.6	22.0	16.0	30.4	19.1	16.1
Angina pectoris 413	28.3	18.6	16.4	33.5	26.9	16.5
Symptomatic heart disease 427	27.1	18.0	16.5	39.7	23.4	17.5
Cerebrovascular disease 430-438	24.8	22.2	15.0	32.7	19.3	14.5
Arteriosclerosis 440	30.7	13.6	17.7	22.1	20.0	13.9
Phlebitis and thrombophlebitis 451	22.7	15.6	13.4	20.9	16.5	13.0
Varicose veins of lower extremities 454	15.6	16.2	11.0	22.4	11.0	16.0
Hemorrhoids 455	19.0	14.5	14.6	18.6	19.8	19.0
	Standard error of mean contact duration in minutes					
Essential benign hypertension 401	1.72	1.61	0.34	3.39	0.96	0.32
Acute ischemic heart disease 410-411	12.34	4.10	0.97	5.56	5.41	1.17
Chronic ischemic heart disease 412	2.53	3.94	0.60	2.56	1.58	0.48
Angina pectoris 413	4.20	2.82	1.13	7.15	5.65	0.98
Symptomatic heart disease 427	3.61	1.91	0.98	7.24	2.15	0.75
Cerebrovascular disease 430-438	4.56	3.48	0.58	6.68	3.19	1.16
Arteriosclerosis 440	5.27	5.53	1.63	9.59	4.98	0.69
Phlebitis and thrombophlebitis 451	4.06	1.77	0.68	8.54	2.61	1.08
Varicose veins of lower extremities 454	3.79	2.46	1.09	10.29	4.49	1.42
Hemorrhoids 455	1.91	1.47	0.85	3.25	2.14	1.86

[1]Diagnostic groupings and code inclusions are based on the *Eighth Revision International Classification of Diseases, Adapted for Use in the United States, 1965.*

APPENDIXES

CONTENTS

I. Technical Notes 39
Statistical Design 39
Data Collection and Processing 40
Estimation Procedures 42
Reliability of Estimates 42
Tests of Significance 45
Population Figures and Rate Computation 45
Systematic Bias 46

II. Definition of Certain Terms Used in This Report 47
Terms Relating to the Survey 47
Terms Relating to the Patient Record Form 48

III. Survey Instruments 51
Introductory Letter From Director, National Center for Health Statistics 51
Patient Record and Patient Log 52
Induction Interview Form 53

LIST OF APPENDIX FIGURES

I. Approximate relative standard errors for estimated numbers of office visits, 1975-76 National Ambulatory Medical Care Survey 43

II. Approximate relative standard errors for percentages of estimated numbers of office visits, 1975-76 National Ambulatory Medical Care Survey 44

LIST OF APPENDIX TABLES

I. Distribution of physicians in the 1975-76 National Ambulatory Medical Care Survey sample and response rates, by physician's specialty 40

II. Estimates of the civilian noninstitutionalized population of the United States used in computing average annual rates in this publication, by age, race, sex, geographic region, and metropolitan and nonmetropolitan areas: United States, 1975-76 45

APPENDIX I

TECHNICAL NOTES[j]

This report is based on data collected in the National Ambulatory Medical Care Survey (NAMCS). The NAMCS is an annual sample survey of office-based physicians conducted by the Division of Health Resources Utilization Statistics of the National Center for Health Statistics. The present report is based on information collected during 1975 and 1976.

Statistical Design

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

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

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

Office-based, as defined by AMA and AOA.

Principally engaged in patient care activities.

Nonfederally employed.

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

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

During 1975-76 the total NAMCS sample included 6,529 physicians. Sample physicians were screened at the time of the survey to assure that they met the aforementioned criteria; 925 physicians did not meet all of the criteria and were, therefore, ruled out of scope (ineligible)

[j]Prepared by Thomas McLemore, M.S.P.H., Division of Health Resources Utilization Statistics.

for the study. The most frequent reasons for being out of scope were that the physician was retired, deceased, or employed in teaching, research, or administration. Of the 5,604 in-scope (eligible) physicians, 4,476 (79.9 percent) participated in the study. Of the participating physicians, 679 physicians saw no patients during their assigned reporting period because of vacations, illness, or other reasons for being temporarily not in practice. The physician sample size and response rates by physician specialty are shown in table I.

The final stage was the selection of patient visits within the annual practices of the sample physicians. This involved two steps. First, the total physician sample was divided into 52 random subsamples of approximately equal size, and each subsample was randomly assigned to 1 of the 52 weeks in the survey year. Second, a systematic random sample of visits was selected by the physician during the assigned week. The 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, as determined in a presurvey interview. The method by which the sampling rate was determined is described later in the Technical Notes and in the Induction Interview form displayed in appendix III. During 1975-76 information was collected on 113,921 patient visits by means of NAMCS.

Data Collection and Processing

Field procedures.—Both mail and telephone contacts were used to enlist sample physicians into NAMCS. Physicians received introductory letters from NCHS (see appendix III) and AMA or AOA. When appropriate, a letter from the physician's specialty organization, endorsing the survey and urging his participation, was enclosed with the NCHS letter. A few days later, a field representative from NORC telephoned the sample physician to explain the study briefly and to arrange an appointment for a personal interview. An initially nonresponding physician was generally recontacted via a telephone call or special explanatory letter and requested to reconsider participation in the study.

During the personal interview, the field

Table I. Distribution of physicians in the 1975-76 National Ambulatory Medical Care Survey sample and response rates, by physician specialty

Physician's specialty	Gross total	Out of scope	Net total	Non-respondents	Respondents	Response rate
	Number of physicians					
All specialties	6,529	925	5,604	1,128	4,476	79.9
General practice	1,687	260	1,427	333	1,094	76.7
Medical specialties	1,765	245	1,520	337	1,183	77.8
Internal medicine	938	124	814	202	612	75.2
Pediatrics	435	74	361	53	308	85.3
Other	392	47	345	82	263	76.2
Surgical specialties	2,316	189	2,127	381	1,746	82.1
General surgery	679	54	625	113	512	81.9
Obstetrics and gynecology	558	48	510	94	416	81.6
Other	1,079	87	992	174	818	82.5
Other specialties	761	231	530	77	453	85.5
Psychiatry	468	79	389	45	344	88.4
Other	293	152	141	32	109	77.3

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

Before the beginning of and again during the week assigned for data collection, the NORC interviewer telephoned the sample physician to answer possible questions and to insure that procedures were going smoothly. At the end of the survey week, the participating physician mailed finished survey materials to the interviewer who edited the forms for completeness before transmitting them for central data processing. Problems or missing data at this stage were resolved by interviewer telephone followup to the sample physician; if there were no problems, field procedures were complete with respect to the sample physician's participation in NAMCS. After the end of the survey year each sample physician was sent a thank-you letter from NCHS along with one of the survey's statistical reports.

Data collection.—The actual data collection for the NAMCS was carried out by the physician aided by his office staff when possible. Two data collection forms were employed by the physician: the Patient Log and the Patient Record (appendix III). The Patient Log is a sequential listing of patients seen in the physician's office during his assigned reporting week. This list served as the sampling frame to indicate the visits for which data were to be recorded. A perforation between the patient names and patient visit characteristics permitted the physician to remove patient names thus protecting the confidentiality of the patient.

Based on the physician's estimate of the expected number of office visits and expected number of days in practice, each physician was assigned a patient sampling ratio. These ratios were designed so that about 30 Patient Records were completed during the assigned reporting week. Physicians expecting 10 or fewer visits each day recorded data for all of them; those expecting more than 10 visits per day recorded data for every second, third, or fifth visit, based on the predetermined sampling interval. These procedures minimized the data collection workload and maintained approximate equal reporting levels among sample physicians regardless of practice size. For physicians assigned a patient sampling ratio, a random start was provided on the first page of the log, so that predesignated sample visits on each succeeding page of the log provided a systematic random sample of patient visits during the reporting period.

Data processing.—In addition to completeness checks made by the NORC field staff, clerical edits were performed upon receipt of the data for central processing. These procedures proved quite efficient, reducing item nonresponse rates to a negligible amount—2 percent or less for each data item.

Information contained in items 5 and 9 of the Patient Record were coded in a separate medical coding operation. This coding was performed by the American Medical Records Association, under subcontract to NORC. The data in item 5, the patient's reason for visit, were coded according to a special classification system developed for that purpose.[23] The diagnostic information, item 9 of the Patient Record, was coded according to the *Eighth Revision International Classification of Diseases, Adapted for Use in the United States* (ICDA).[15] A maximum of three entries was coded from each of these items. A two-way independent verification procedure with 100-percent verification was used to control the medical coding operation. Differences between coders were adjudicated at NCHS.

Information from the Induction Interview and Patient Record was keypunched, with 100-percent verification, and converted to computer tape. At this time, extensive computer consistency and edit checks were performed. Data items still unanswered at this point were imputed by assigning a value from a Patient Record with similar characteristics; imputations were based on physician specialty, major reason for visit, and broad diagnostic categories.

NOTE: A list of references follows the text.

Estimation Procedures

Statistics produced from NAMCS were derived by a multistage estimating procedure. The procedure produces essentially unbiased national estimates and has basically three components: (1) inflation by reciprocals of the probabilities of selection, (2) adjustment for nonresponse, and (3) a ratio adjustment to fixed totals. Each of these components is described briefly in the material that follows.

Inflation by reciprocals of sampling probabilities.—Because the survey utilized a three-stage sample design, there were three probabilities: (1) the probability of selecting the PSU, (2) the probability of selecting a physician within the PSU, and (3) the probability of selecting a patient visit within the physician's practice. The last probability was defined to be the exact number of office visits during the physician's specified reporting week divided by the number of Patient Records completed. All weekly estimates were inflated by a factor of 52 to derive annual estimates.

Adjustment for nonresponse.—Estimates from NAMCS data were adjusted to account for sample physicians who refused to participate in the study. This was done in such a manner as to minimize the impact of nonresponse on final estimates by imputing to nonresponding physicians the practice characteristics of similar responding physicians. For this purpose, similar physicians were judged to be physicians having the same specialty designation and practicing in the same PSU.

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

Reliability of Estimates

Since the statistics presented in this report are based on a sample, they will differ somewhat from the figures that would be obtained if a complete census had been taken using the same forms, instructions, and procedures. However, the probability design of NAMCS permits the calculation of sampling errors. The standard error is primarily a measure of sampling variability that occurs by chance because only a sample rather than the entire population is surveyed. As calculated in this report, the standard error also reflects part of the variation which arises in the measurement process. It 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 percentage of the estimate. For this report, asterisks (*) are presented along with the estimate for any estimate with more than a 30-percent relative standard error.

Estimates of sampling variability were calculated using the method of half-sample replication. This method yields overall variability through observation of variability among random subsamples of the total sample. A description of the development and evaluation of the replication technique for error estimation has been previously published.[26,27]

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

1. *Estimates of aggregates:* Approximate relative standard errors (in percent) for aggregate statistics, such as the number of office visits with a given characteristic,

are obtained from the curve in figure I, or calculated by the following formula:

$$\text{RSE}\ (x) = \sqrt{0.0009113499 + \frac{54.14306}{x}} \cdot 100$$

where x is the aggregate of interest in thousands.

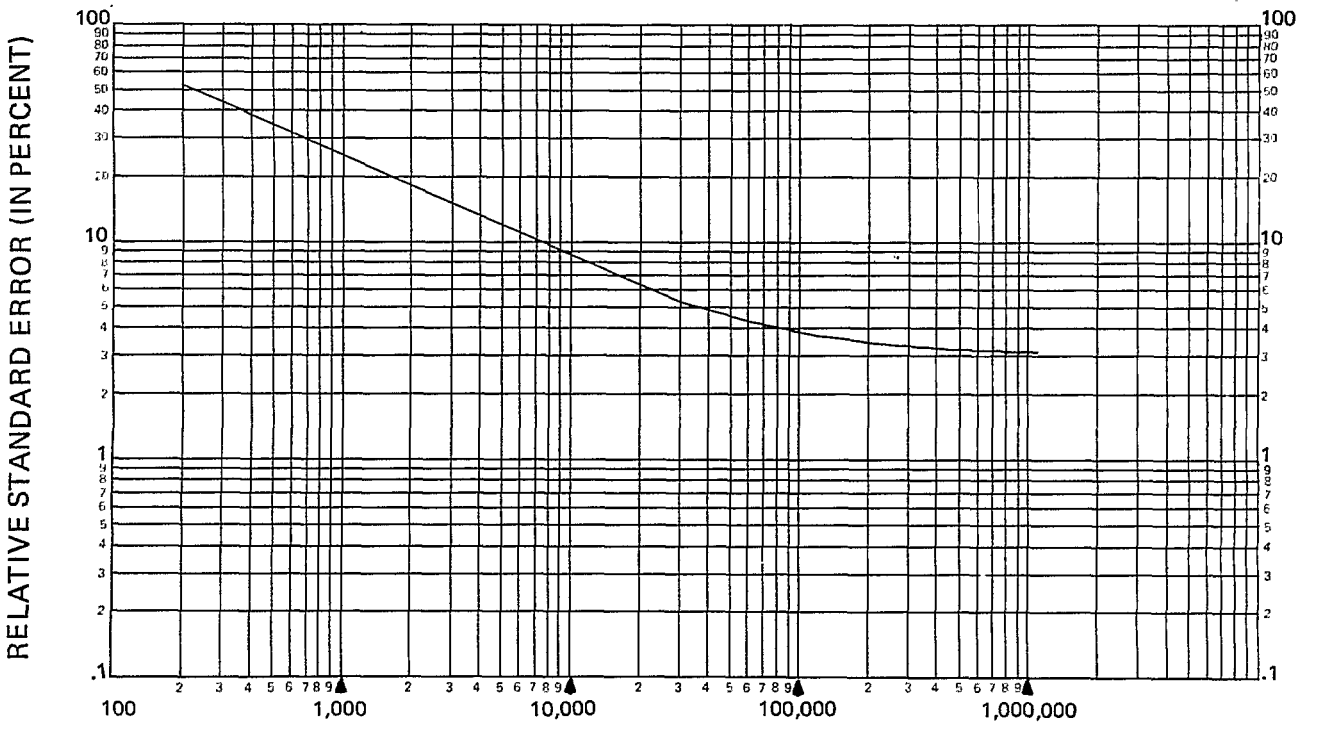
2. *Estimates of percentages:* Approximate relative standard errors (in percent) for estimates of this type can be calculated from the curve in figure I as follows. Obtain the relative standard error of the numerator and denominator. Square each of the relative standard errors, subtract the resulting value for the denominator from the resulting value for the numerator, and extract the square root. This calculation has been made for several percentages and bases and is presented in figure II. Alternatively, the formula

$$\text{RSE}\ (p) = \sqrt{\frac{54.14306\ (1 - p)}{p \cdot x}} \cdot 100$$

can be used to calculate RSE for any percentage (p) and base (x, in thousands).

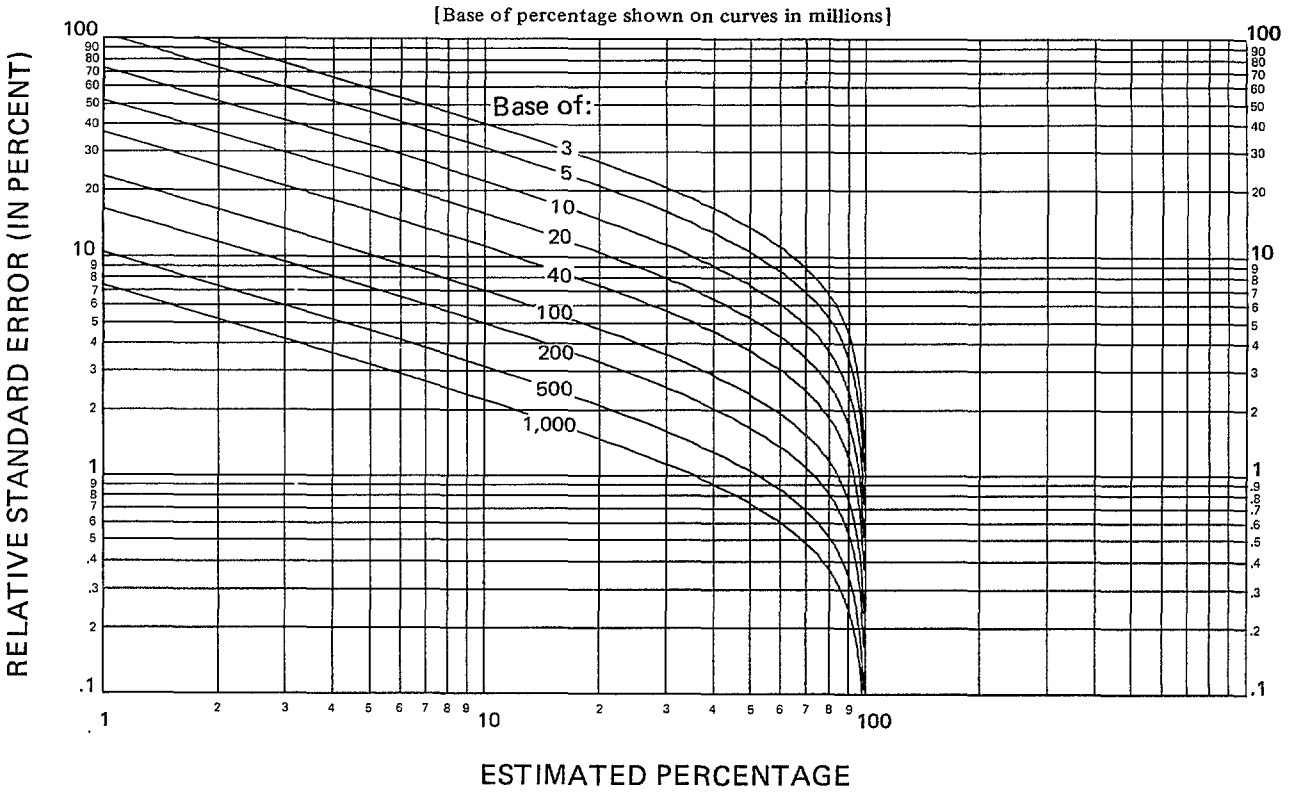
3. *Estimates of rates where the numerator is not a subclass of the denominator:* Approximate relative standard errors for rates where the denominator is the total U.S. population or one or more of the age-sex-race groups of the total population are equivalent to the relative standard error of the numerator that can be obtained from figure I.

Figure I. Approximate relative standard errors for estimated numbers of office visits, 1975-76 National Ambulatory Medical Survey



Example of use of this graph: An estimate of 10 million office visits (read from scale at bottom of graph) has a relative standard error of 8.0 percent (read from scale at left of graph) or a standard error of 800,000 office visits (8.0 percent of 10 million visits).

Figure II. Approximate relative standard errors for percentages of estimated numbers of office visits, 1975-76 National Ambulatory Medical Care Survey



Example of use of this graph: An estimate of 20 percent (read from scale at bottom of graph) based on an estimate of 10 million visits has a relative standard error of 14.7 percent (read from scale at left of graph) or a standard error of 2.9 percentage points (14.7 percent of 20 percent).

4. *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 the squares of each standard error considered separately. This formula will represent the standard error quite accurately for the difference between separate and uncorrelated characteristics, although it is only a rough approximation in most other cases.

The half-sample replication procedure was also used to calculate standard errors for the specific estimates of mean contact duration of visit presented in this report; these standard errors are presented in tables 11 and 12 along with the estimates.

In addition to sampling error, survey results are subject to reporting and processing errors and biases due to nonresponse or incomplete response. There is no way to compute the magnitude of these errors. However, these types of errors were kept to a minimum by methods built into the survey procedures. Extensive pretesting and careful attention was given to phasing of the questions and the terms employed and their definitions in order to eliminate ambiguities and encourage uniformity. Steps taken to reduce nonresponse bias were discussed

in the sections on field procedures and data collection. Errors in coding and processing were reduced by verification and consistency checks.

Tests of Significance

In this report, the determination of statistical inference for single comparisons is based on the *t*-test with a critical value of 1.96 (0.05 level of significance). The Bonferroni technique is used for simultaneous testing of multiple comparisons. Terms relating to differences, such as "higher," "less," and so forth, indicate that the differences are statistically significant. Terms such as "similar," "no difference," and so forth, mean that the difference between the statistics being compared is not statistically significant. Lack of comment regarding the difference between any two statistics does not mean the difference was tested and found to be not significant.

Population Figures and Rate Computation

The population figures used in computing average annual visit rates are presented in table II. These figures are based on an average of the July 1, 1975 and July 1, 1976, provisional estimates of the civilian noninstitutionalized population of the United States obtained from the U.S. Bureau of the Census. Because NAMCS includes data for only the conterminous United States, the original Census estimates were modified to account for the exclusion of Alaska and Hawaii from the study. For this reason the population estimates should not be considered as official population estimates and are presented

Table II. Estimates of the civilian noninstitutionalized population of the United States[1] used in computing average annual rates in this publication, by age, race, sex, geographic region, and metropolitan and nonmetropolitan areas: United States, 1975-76

Race, sex, geographic region, and area	All ages	Under 35 years	35-44 years	45-54 years	55-64 years	65-74 years	75 years and over
Race and sex	Number in thousands						
All races	208,610	121,822	22,353	23,349	19,608	13,634	7,844
Male	100,639	60,575	10,737	11,242	9,240	5,914	2,931
Female	107,971	61,247	11,616	12,107	10,368	7,721	4,913
White	181,285	103,702	19,571	20,790	17,727	12,337	7,159
Male	87,823	51,881	9,513	10,063	8,376	5,339	2,652
Female	93,462	51,821	10,058	10,727	9,352	6,998	4,507
All other	27,324	18,120	2,782	2,558	1,881	1,298	685
Male	12,816	8,694	1,224	1,179	864	575	279
Female	14,509	9,426	1,558	1,379	1,016	723	406
Geographic region							
Northeast	48,849	---	---	---	---	---	---
North Central	56,063	---	---	---	---	---	---
South	67,212	---	---	---	---	---	---
West	36,486	---	---	---	---	---	---
Area							
Metropolitan	143,086	---	---	---	---	---	---
Nonmetropolitan	65,524	---	---	---	---	---	---

[1]Excludes Alaska and Hawaii.

here solely for the purpose of providing denominators for rate computations.

Average annual visit rates in this report were calculated as follows. The numerator was obtained by dividing the estimated number of office visits for 1975-76 by 2, to obtain an average annual number of office visits. This number was then divided by the appropriate population figure to obtain an average annual visit rate. As previously discussed, reliability estimates for average annual visit rates can be calculated from figure I.

Systematic Bias

There have been no attempts to determine systematic bias in the data reported here or to measure the impact of any biases. There are several factors, however, that the user of these data should understand, all of which indicate that these data underrepresent the total number of office visits to office-based physicians. Some of those factors are:

1. The sampling frame for the 1975 and 1976 NAMCS included all nonfederally employed, "office-based, patient care" physicians on the AMA-AOA master files. There are certainly physicians not so classified who, at the time of the survey, would have met the criteria for that classification. Visits to these physicians are not represented in these data.
2. Physicians who participated in NAMCS did a thorough and conscientious job in keeping the Patient Log; however, the probability that a patient was accidentally omitted from the survey is much greater than the probability that a patient was included who did not make a visit. This factor could also introduce a bias into the data.

APPENDIX II

DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT

Terms Relating to the Survey

Office(s).—Premises that the physician identifies as locations for his ambulatory practice. Responsibility over time for patient care and professional services rendered there generally resides with the individual physician rather than with any institution.

Ambulatory patient.—An individual presenting for personal health services, neither bedridden nor currently admitted to any health care institution on the premises.

Physician.—Can be classified as either:

In-scope: All duly licensed doctors of medicine and doctors of osteopathy currently in practice who spend some time in caring for ambulatory patients at an office location.

Out-of-scope: Those physicians who treat patients only indirectly, including specialists in anesthesiology, pathology, forensic pathology, radiology, therapeutic radiology, and diagnostic radiology, and the following physicians:

- physicians in military service
- physicians who treat patients only in an institutional setting (e.g., patients in nursing homes and hospitals)
- physicians employed full time by an industry or institution and having no private practice (e.g., physicians who work for the Veterans Administration, the Ford Motor Company, etc.)
- physicians who spend no time seeing ambulatory patients (e.g., physicians who only teach, are engaged in research, or are retired).

Patients.—Can be classified as either:

In-scope: All patients seen by the physician or member of his staff in his office(s).

Out-of-scope: Patients seen by the physician in a hospital, nursing home, or other extended care institution, or the patient's home. [Note: If the doctor has a *private* office (which fits definition of "office") located in a hospital, the ambulatory patients seen there would be considered "in-scope."] The following types of patients are also considered out of scope:

- patients seen by the physician in any institution (including outpatient clinics of hospitals) for which the institution has the primary responsibility for the care of the patient over time
- patients who telephone and receive advice from the physician
- patients who come to the office only to leave a specimen, pick up insurance forms, or pay their bills
- patients who come to the office only to pick up medications previously prescribed by the physician.

Visit.—A direct, personal exchange between ambulatory patient and the physician (or members of his staff) for the purpose of seeking care and rendering health services.

Physician specialty.—Principal specialty (including general practice) as designated by the physician at the time of the survey. Those physicians for whom a specialty was not obtained were assigned the principal specialty

recorded in the Master Physician files maintained by AMA or AOA.

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

Region	*States included*
Northeast	Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont
North Central ...	Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin
South	Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia
West	Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming

Metropolitan status of practice location.—Physician's practice is classified by its location in metropolitan or nonmetropolitan areas. Metropolitan areas are standard metropolitan statistical areas (SMSA's) as defined by the U.S. Office of Management and Budget.

The definition of an individual SMSA involves two considerations: first, a city or cities of specified population that constitute the central city and identify the county in which it is located as the central county; second, economic and social relationships with "contiguous" counties that are metropolitan in character, so that the periphery of the specific metropolitan area may be determined. SMSA's may cross State lines. In New England, SMSA's consist of cities and towns, rather than counties.

Terms Relating to the Patient Record Form

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

Color or race.—On the Patient Record, color or race includes four categories: white, Negro/black, other, and unknown. The physician was instructed to mark the category which in the physician's judgment was most appropriate for the patient based upon observation and/or prior knowledge of the patient. "Other" was restricted to Orientals, American Indians, and other races neither Negro nor white.

Patient's principal problem(s), complaint(s), or symptom(s) (in patient's own words).—The patient's principal problem, complaint, symptom, or reason for the 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.

Seriousness of problem in item 5a.—This item includes four categories: very serious, serious, slightly serious, and not serious. The physician was instructed to check one of the four categories according to his or her own evaluation of the seriousness of the patient's problem causing this visit. Seriousness refers to physician's clinical judgment as to the extent of the patient's impairment that might result if no care were given.

Major reason(s) for this visit.—The patient's major reason(s) for the visit were classified by the physician into one or more of the following categories:

Acute problem: A condition or illness having a relatively sudden or recent onset (i.e., within 3 months of the visit).

Acute problem, followup: A return visit primarily for continued medical care of a previously treated acute problem.

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 this visit).

Chronic problem, flareup: A visit primarily due to a sudden exacerbation of a preexisting chronic condition.

Prenatal care: Routine obstetrical care provided prior to delivery.

Postnatal care: Routine obstetrical care or examination provided following delivery or termination of pregnancy.

Postoperative care: A visit primarily for care required following surgical treatment. Includes changing dressing, removing sutures or cast, advising on restriction of activities or routine aftersurgery checkup.

Well adult/child exam: General health maintenance examinations and routine maintenance examinations and routine periodic examinations of presumably healthy persons, both children and adults. Includes annual physical examinations, well-child checkups, school, camp, and insurance examinations.

Family planning: Services or advice that enable patients to determine the number and spacing of their children. Includes both contraception and infertility services.

Counseling/advice: Information of a health nature that would enable the patient to maintain or improve his physical or mental well-being. Included would be advice regarding diet, changing habits or behavior, and general information regarding a specific problem.

Immunization: Administration of any inoculation of specific substances to produce a desired immunity; this includes oral vaccines. (Allergy shots are not included in this category, but are entered under "other.")

Referred by another physician/agency: Medical attention prompted by advice or referral for consultation or treatment from another physician, hospital, clinic, health center, school nurse, minister, pharmacist, and so forth. *Does not* include self-referral or referral by family or friends.

Administrative purpose: Reasons such as completing insurance forms, school forms, work permits, or discussion of patient's bill.

Other: The reason for this visit is not covered in the preceding list.

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

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

Treatments and services ordered or provided.—These include the following:

Limited history/exam: History and/or physical examination that is limited to a specific body site or system, or that is concerned primarily with the patient's chief complaint, for example, pelvic exam or eye exam.

General history/exam: History and/or physical examination of a comprehensive nature, including all or most body systems.

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.

Blood pressure check: Self-explanatory.

EKG: Electrocardiogram.

Hearing test: Auditory acuity test.

Vision test: Visual acuity test.

Endoscopy: Examination of the interior of any body cavity, except ear, nose, and throat, by means of an endoscope.

Office surgery: Any surgical procedure performed in the office this visit, including suture of wounds, reduction of fractures, application/removal of casts, incision and draining of abscesses, application of supportive materials for fractures and sprains, and

all irrigations, aspirations, dilatations, and excisions.

Drug prescribed: Drugs, vitamins, hormones, ointments, suppositories, or other medications ordered or provided, except injections and immunizations.

X-ray: Any single or multiple X-ray examination for diagnostic or screening purposes. Radiation therapy is *not* included in this category.

Injection: Administration of any substance by syringe and needle subcutaneously, intravenously, or intramuscularly. This category does not include immunizations, enemas, or douches.

Immunization/desensitization: Administration of any immunizing, vaccinating, or desensitizing agent or substance by any route, for example, syringe, needle, orally, gun, or scarification.

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 therapy, and manipulative therapy.

Medical counseling: Instructions and recommendations regarding any health problem, including advice or counsel about diet, change of habit, or behavior. Physicians are instructed to check this category only if the medical counseling is a *significant* part of the treatment.

Psychotherapy/therapeutic listening: All treatments designed to produce a mental or emotional response through suggestion, persuasion, reeducation, reassurance, or support, including psychological counseling, hypnosis, psychoanalysis, and transactional therapy.

Other: Treatments or services rendered which are not listed in the preceding categories.

Disposition.—Eight categories to describe the physician's disposition of the case are provided as follows:

No followup planned: No return visit or telephone contact was scheduled for the patient's problem on this visit.

Return at specified time: The 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 considers it necessary.

Telephone followup planned: The patient was instructed to telephone the physician on a particular day to report on his progress, or if the need arises.

Referred to other physician/agency: The patient was instructed to consult or seek care from another physician or agency. The patient may or may not return to this physician at a later date.

Returned to referring physician: Patient was referred to this physician and was now instructed to consult again with the physician or agency which referred him.

Admit to hospital: Patient was instructed that further care or treatment will be provided in a hospital. No further office visits were expected prior to that admission.

Other: Any other disposition of the case not included in the above categories.

Duration of visit.—Time the physician spent with the patient, but does not include the time patient spent waiting to see the physician, time patient spent receiving care from someone other than the doctor without the presence of the physician, and time spent reviewing records, tests results, and so forth. In the event a patient was provided care by a member of physician's staff but did not see the physician during the visit, "duration of visit" was recorded as zero minutes.

APPENDIX III

SURVEY INSTRUMENTS

INTRODUCTORY LETTER FROM DIRECTOR, NATIONAL CENTER FOR HEALTH STATISTICS

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
HEALTH RESOURCES ADMINISTRATION
ROCKVILLE, MARYLAND 20852

NATIONAL CENTER FOR
HEALTH STATISTICS

Endorsing Organizations

American Medical Association
James H. Sammons, M.D.
Executive Vice President

National Medical Association
Alfred F. Fisher
Executive Director

American Academy of Dermatology
John M. Shaw, M.D.
Secretary-Treasurer

American Academy of Family Physicians
Roger Tusken
Executive Director

American Academy of Neurology
Stanley A. Nelson
Executive Director

American Academy of Orthopaedic Surgeons
Charles V. Heck, M.D.
Executive Director

American Academy of Pediatrics
Robert G. Frazier, M.D.
Executive Director

American College of Obstetricians and Gynecologists
Warren H. Pearse, M.D.
Director

American College of Physicians
Edward C. Rosenow, Jr., M.D.
Executive Vice President

American College of Preventive Medicine
Ward Bentley
Executive Director

American College of Surgeons
C. Rollins Hanlon, M.D.
Executive Director

American Osteopathic Association
Edward P. Crowell, D. O.
Executive Director

American Proctologic Society
Alejandro F. Castro, M.D.
Secretary

American Psychiatric Association
Melvin Sabshin, M.D.
Medical Director

American Society of Internal Medicine
William R. Ramsey
Executive Director

American Society of Plastic and Reconstructive Surgeons, Inc.
Dallas F. Whaley
Executive Vice President

American Urologic Association
Hal B. Jennings, Jr., M.D.
Executive Director

Association of American Medical Colleges
John A. D. Cooper, M.D., Ph.D.
President

Dear Dr.

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. 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

PATIENT RECORD AND PATIENT LOG

C532204

ASSURANCE OF CONFIDENTIALITY— All information which would permit identification of an individual a practice, or an establishment will be held confidential, will be used only by persons engaged in and for the purposes of the survey and will not be disclosed or released to other persons or used for any other purpose

C532204

PATIENT LOG

As each patient arrives, record name and time of visit on the log below. For the patient entered on line #3, also complete the patient record to the right

	PATIENT'S NAME	TIME OF VISIT
1		a.m. / p.m.
2		a.m. / p.m.
3	Record items 1-12 for this patient	a.m. / p.m.

CONTINUE LISTING PATIENTS ON NEXT PAGE

PATIENT RECORD

NATIONAL AMBULATORY MEDICAL CARE SURVEY

1. DATE OF VISIT Mo / Day / Yr

2. DATE OF BIRTH Mo / Day / Yr

3. SEX
1 ☐ FEMALE
2 ☐ MALE

4. COLOR OR RACE
1 ☐ WHITE
2 ☐ NEGRO/BLACK
3 ☐ OTHER
4 ☐ UNKNOWN

5. PATIENT'S PRINCIPAL PROBLEM(S) COMPLAINT(S), OR SYMPTOM(S) THIS VISIT *(In patient's own words)*
a MOST IMPORTANT _____
b OTHER _____

6. SERIOUSNESS OF PROBLEM IN ITEM 5a *(Check one)*
☐ VERY SERIOUS
☐ SERIOUS
3 ☐ SLIGHTLY SERIOUS
4 ☐ NOT SERIOUS

7. HAVE YOU EVER SEEN THIS PATIENT BEFORE?
☐ YES ☐ NO
If YES, for the problem indicated in ITEM 5a?
☐ YES ☐ NO

8. MAJOR REASON(S) FOR THIS VISIT *(Check all major reasons)*
01 ☐ ACUTE PROBLEM
02 ☐ ACUTE PROBLEM, FOLLOW-UP
03 ☐ CHRONIC PROBLEM, ROUTINE
04 ☐ CHRONIC PROBLEM, FLARE-UP
05 ☐ PRENATAL CARE
06 ☐ POSTNATAL CARE
07 ☐ POSTOPERATIVE CARE → _____ *(Operative procedure)*
08 ☐ WELL ADULT/CHILD EXAM
09 ☐ FAMILY PLANNING
10 ☐ COUNSELING/ADVICE
11 ☐ IMMUNIZATION
12 ☐ REFERRED BY OTHER PHYS./AGENCY
13 ☐ ADMINISTRATIVE PURPOSE
14 ☐ OTHER *(Specify)* _____

9. PHYSICIAN'S PRINCIPAL DIAGNOSIS THIS VISIT
a DIAGNOSIS ASSOCIATED WITH ITEM 5a ENTRY
_____
_____
b OTHER SIGNIFICANT CURRENT DIAGNOSES *(In order of importance)*
_____
_____

10. DIAGNOSTIC/THERAPEUTIC SERVICES ORDERED/PROVIDED THIS VISIT *(Check all that apply)*
01 ☐ NONE
02 ☐ LIMITED HISTORY/EXAM
03 ☐ GENERAL HISTORY/EXAM
04 ☐ CLINICAL LAB. TEST
05 ☐ BLOOD PRESSURE CHECK
06 ☐ EKG
07 ☐ HEARING TEST
08 ☐ VISION TEST
09 ☐ ENDOSCOPY
10 ☐ OFFICE SURGERY
11 ☐ DRUG PRESCRIBED
12 ☐ X-RAY
13 ☐ INJECTION
14 ☐ IMMUNIZATION/DESENSITIZATION
15 ☐ PHYSIOTHERAPY
16 ☐ MEDICAL COUNSELING
17 ☐ PSYCHOTHERAPY/THERAPEUTIC LISTENING
18 ☐ OTHER *(Specify)* _____

11. 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/AGENCY
6 ☐ RETURNED TO REFERRING PHYSICIAN
7 ☐ ADMIT TO HOSPITAL
8 ☐ OTHER *(Specify)* _____

12. DURATION OF THIS VISIT *(Time actually spent with physician)*
_____ MINUTES

HRA-34-4
REV. 8-75

DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
PUBLIC HEALTH SERVICE
HEALTH RESOURCES ADMINISTRATION
NATIONAL CENTER FOR HEALTH STATISTICS

O.M.B. #68-S72106

INDUCTION INTERVIEW FORM

CONFIDENTIAL*
NORC-4233

Form Approved.
OMB No. 68R1498

NATIONAL AMBULATORY MEDICAL CARE SURVEY

TIME BEGAN: _____ AM PM

INDUCTION INTERVIEW

(Phys. ID Number)

BEFORE STARTING INTERVIEW

1. ENTER PHYSICIAN I.D. NUMBER IN BOX TO RIGHT, ABOVE
2. ENTER DATES OF ASSIGNED REPORTING WEEK IN Q. 2, P.2

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 per cent 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 some of the patients 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 _____. Is that right?
(ENTER SPECIALTY FROM CODE ON FACE SHEET LABEL.)

Yes 1
No . . . . (ASK A) 2

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

_____
(Name of Specialty)

---

*All information which would permit identification of an individual, a practice, or an establishment will be held confidential, will be used only by persons engaged in and for the purpose of the survey, and will not be disclosed or released to other persons or used for any other purpose.

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

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

Yes . . . . . .(GO TO Q. 3) . . 1
No . . . . . (ASK A) 2

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 ASK B WHEN INDICATED.

B. IF HOSPITAL EMERGENCY ROOM OR HOSPITAL OUTPATIENT DEPARTMENT, OR OTHER INSTITUTIONAL LOCATION IN A: Thinking about the ambulatory patients you see in (PLACE IN A), do you, yourself, have principal responsibility for their care over time, or does (INSTITUTION IN A) have primary responsibility for their care over time? CODE UNDER B BELOW.

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

Yes 1
No 2

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

	A. Office Location	B. Principal Responsibility?		D. In Scope?	
		Physician	Institution	Yes	No
(1)	_____	1	2	1	2
(2)	_____	1	2	1	2
(3)	_____	1	2	1	2
(4)	_____	1	2	1	2

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

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

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

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

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

PATIENT RECORDS MUST BE COLLECTED FROM ALL IN-SCOPE LOCATIONS REGARDLESS OF ANSWER TO B -- PRINCIPAL RESPONSIBILITY.

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 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.

ENTER TOTAL UNDER "B" BELOW AND CIRCLE NUMBER IN APPROPRIATE COLUMN.

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.						
	ENTER TOTAL FROM Q. 4-A. _____	ENTER TOTAL FROM Q. 4-B. _____ DAYS						
		1	2	3	4	5	6	7
A--Patient Record is to be completed for ALL patients listed on Log.	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 or line on line 5 on every other page of the two folio pads, starting with page 1 of the pad.

5. FIND PATIENT LOG FOLIO WITH APPROPRIATE LETTER AND ENTER LETTER AND NUMBER OF THIS FORM HERE.

_____
(Folio Number)

---

6. HAND DOCTOR HIS FOLIO AND EXPLAIN HOW FORMS ARE TO BE FILLED OUT. SHOW DOCTOR THE INSTRUCTIONS ON POCKET OF FOLIO AND ITEM 10 DEFINITIONS ON CARD IN FOLIO, TO WHICH HE CAN REFER AFTER YOU LEAVE.

   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) FOR THOSE LOCATIONS BELOW, BEFORE DELIVERING FORM(S).

Location	Patient Record Form Letter & Number

---

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
   No 2

A. IF YES: Who would that be?

   RECORD NAME, POSITION AND LOCATION.

NAME	POSITION	LOCATION	B. * INTERVIEWER: WAS PERSON BRIEF BY YOU? Yes	No
			1	2
			1	2
			1	2
			1	2

*INTERVIEWER SHOULD BRIEF SUCH PERSON IF POSSIBLE.

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. 1
Partnership . . (ASK A-C) . . . 2
Group . . . . . (ASK A-C) . . . 3
_____ <--- Other (SPCIFY AND ASK A-C). . . 4

IF PARTNERSHIP, GROUP, OR OTHER:

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

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

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

C. What are the specialties of the other physicians associated with you?

	Specialty	Number of Physicians
(1)	_____	_____
(2)	_____	_____
(3)	_____	_____
(4)	_____	_____
(5)	_____	_____

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 TOP 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 TOP 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)
	TOTAL:_____	TOTAL:_____
(1) Registered Nurse	_____	_____
(2) Licensed Practical Nurse	_____	_____
(3) Nursing Aide	_____	_____
(4) Physician Assistant*	_____	_____
(5) Technician	_____	_____
(6) Secretary or Receptionist	_____	_____
(7) Other (SPECIFY) _____	_____	_____

*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.

11. During the past seven (7) days, about how many house calls did you make?

NUMBER OF HOUSE CALLS: _____

---

12. During the past seven (7) days, how many times did you provide to patients advice or consultation by telephone?

None 1
1-9 2
10-24 3
25-49 4
50 or more 5

BEFORE YOU LEAVE, STRESS THAT EACH AMBULATORY PATIENT SEEN BY THE DOCTOR 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.

13. TIME INTERVIEW ENDED . . . . . _____ AM / PM

14. DATE OF INTERVIEW . . . . . | | | | | | | |

(Month) (Day) (Year)

COMPLETE ITEMS I AND II ON THE LAST PAGE IMMEDIATELY AFTER THE INTERVIEW.

I. How much interest do you think the doctor has in the survey?

Great interest . . . 1
Some interest 2
Little interest . . . 3
No interest 4
Can't tell 5

II. How confident are you that the doctor will complete the forms?

Definitely will . . 1
Probably will . . . 2
Doubtful 3

INTERVIEWER NUMBER

INTERVIEWER'S SIGNATURE

*U.S. GOVERNMENT PRINTING OFFICE : 1979 0-281-259/5

VITAL AND HEALTH STATISTICS Series

Series 1. Programs and Collection Procedures.—Reports which describe the general programs of the National Center for Health Statistics and its offices and divisions and data collection methods used and include definitions and other material necessary for understanding the data.

Series 2. Data Evaluation and Methods Research.—Studies of new statistical methodology including experimental tests of new survey methods, studies of vital statistics collection methods, new analytical techniques, objective evaluations of reliability of collected data, and contributions to statistical theory.

Series 3. Analytical Studies.—Reports presenting analytical or interpretive studies based on vital and health statistics, carrying the analysis further than the expository types of reports in the other series.

Series 4. Documents and Committee Reports.—Final reports of major committees concerned with vital and health statistics and documents such as recommended model vital registration laws and revised birth and death certificates.

Series 10. Data From the Health Interview Survey.—Statistics on illness, accidental injuries, disability, use of hospital, medical, dental, and other services, and other health-related topics, all based on data collected in a continuing national household interview survey.

Series 11. Data From the Health Examination Survey and the Health and Nutrition Examination Survey.—Data from direct examination, testing, and measurement of national samples of the civilian noninstitutionalized population provide the basis for two types of reports: (1) estimates of the medically defined prevalence of specific diseases in the United States and the distributions of the population with respect to physical, physiological, and psychological characteristics and (2) analysis of relationships among the various measurements without reference to an explicit finite universe of persons.

Series 12. Data From the Institutionalized Population Surveys.—Discontinued effective 1975. Future reports from these surveys will be in Series 13.

Series 13. Data on Health Resources Utilization.—Statistics on the utilization of health manpower and facilities providing long-term care, ambulatory care, hospital care, and family planning services.

Series 14. Data on Health Resources: Manpower and Facilities.—Statistics on the numbers, geographic distribution, and characteristics of health resources including physicians, dentists, nurses, other health occupations, hospitals, nursing homes, and outpatient facilities.

Series 20. Data on Mortality.—Various statistics on mortality other than as included in regular annual or monthly reports. Special analyses by cause of death, age, and other demographic variables; geographic and time series analyses; and statistics on characteristics of deaths not available from the vital records based on sample surveys of those records.

Series 21. Data on Natality, Marriage, and Divorce.—Various statistics on natality, marriage, and divorce other than as included in regular annual or monthly reports. Special analyses by demographic variables; geographic and time series analyses; studies of fertility; and statistics on characteristics of births not available from the vital records based on sample surveys of those records.

Series 22. Data From the National Mortality and Natality Surveys.—Discontinued effective 1975. Future reports from these sample surveys based on vital records will be included in Series 20 and 21, respectively.

Series 23. Data From the National Survey of Family Growth.—Statistics on fertility, family formation and dissolution, family planning, and related maternal and infant health topics derived from a biennial survey of a nationwide probability sample of ever-married women 15-44 years of age.

For a list of titles of reports published in these series, write to:

Scientific and Technical Information Branch
National Center for Health Statistics
Public Health Service
Hyattsville, Md. 20782

DHEW Publication No. (PHS) 79-1791
Series 13-No. 40

NCHS
U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
Office of the Assistant Secretary for Health
National Center for Health Statistics
3700 East West Highway
Hyattsville, Maryland 20782

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

For publications in the *Vital and Health Statistics* Series call 301-436-NCHS.

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF HEW
HEW 396

THIRD CLASS
BLK. RATE

U.S.MAIL