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Advance Data

From Vital and Health Statistics of the CENTERS FOR DISEASE CONTROL AND PREVENTION/National Center for Health Statistics

Office Visits to Urologists: United States, 1989–90

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During 1989 and 1990 an average of 9,852,000 office visits were made annually to urologists in the United States. The information was collected by means of the National Ambulatory Medical Care Survey (NAMCS), an ongoing probability sample survey of the private office-based, non-Federal physicians practicing in the United States. The NAMCS excludes visits made to hospital emergency or outpatient departments. The survey also excludes physicians who specialize in anesthesiology, pathology, or radiology and those physicians principally engaged in teaching, research, or administration. The survey was conducted annually from 1973 through 1981, again in 1985, and resumed as an annual survey in 1989 by the Division of Health Care Statistics, National Center for Health Statistics, Centers for Disease Control and Prevention. Participation in the survey is voluntary.

The results published in this report are from the 1989 and 1990 NAMCS, which were conducted in identical fashion using the same survey instrument, definitions, and procedures. The two data sets were combined to obtain more reliable estimates. The estimates, including the number of visits, drug mentions, and visit rates, are annual averages, not two-year totals. The national estimates are calculated from a sample, not the entire universe of visits to urologists, and are therefore subject to sampling variability. The technical notes at the end of the report provide guidelines for judging the precision of the estimates. Definitions of key terms used in the survey are also provided. The Patient Record form used in data collection is shown in figure 1 and will be useful when reading the survey results.

Of the visits made to urologists, about 87 percent were to physicians who reported they were board certified in urology, almost 11 percent were to physicians who reported no board certification, and approximately 1 percent were to physicians who reported they were board certified in surgery.

Data highlights

The average annual 9.9 million visits to urologists represented 1.4 percent of all visits to office-based ambulatory care physicians in the United States during 1989–90, which is 4 visits per 100 persons and places urology as the 12th specialty of the 13 most frequently visited (table 1). In the 1975 and 1976 NAMCS, urologists had an annual average of 10,364,000 visits or 1.8 percent of all visits to office-based ambulatory care physicians and a visit rate of 5 visits per 100 persons (1). These numbers are not statistically significantly different from the current data.

Patient characteristics

As shown in table 2 most visits to the urologist are made by patients 25 years of age and over (about 91 percent). The percent of visits increases significantly by age, from nearly 4 percent for patients 15–24 years of age, to around 22 percent for patients 25–44 years of age. Since 1975–76, the percent distribution of visits by age group has remained statistically unchanged for all except patients 65 years of age and over. This age group accounted for about 28 percent of the visits to urologists in 1975–76 and about 44 percent in 1989–90. The visit rate increased from 1 visit per 100 persons for patients under 15 years of age to 17 visits per 100 persons for patients 75 years of age and over. Specifically, the visit rate more than doubled for patients 65–74 years old compared with

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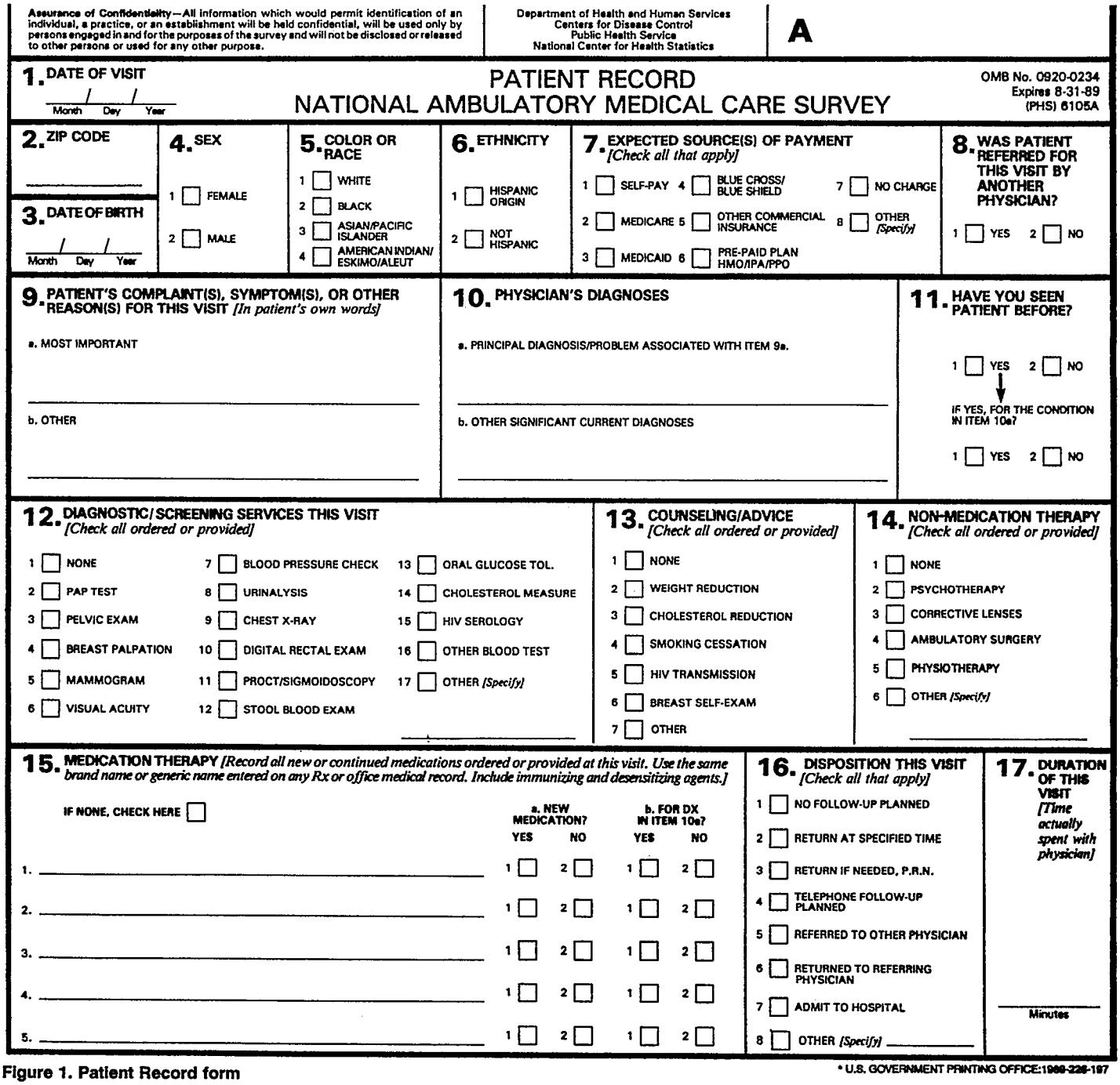

Assurance of Confidentiality—All information which would permit identification of an individual, a practice, or an establishment will be held confidential, will be used only by persons engaged in and for the purposes of the survey and will not be disclosed or released to other persons or used for any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

Department of Health and Human Services
Centers for Disease Control
Public Health Service
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A

1. DATE OF VISIT — Month / Day / Year

PATIENT RECORD
NATIONAL AMBULATORY MEDICAL CARE SURVEY

OMB No. 0920-0234
Expires 8-31-89
(PHS) 6105A

2. ZIP CODE

3. DATE OF BIRTH — Month / Day / Year

4. SEX
1 ☐ FEMALE
2 ☐ MALE

5. COLOR OR RACE
1 ☐ WHITE
2 ☐ BLACK
3 ☐ ASIAN/PACIFIC ISLANDER
4 ☐ AMERICAN INDIAN/ ESKIMO/ALEUT

6. ETHNICITY
1 ☐ HISPANIC ORIGIN
2 ☐ NOT HISPANIC

7. EXPECTED SOURCE(S) OF PAYMENT *[Check all that apply]*
1 ☐ SELF-PAY
2 ☐ MEDICARE
3 ☐ MEDICAID
4 ☐ BLUE CROSS/ BLUE SHIELD
5 ☐ OTHER COMMERCIAL INSURANCE
6 ☐ PRE-PAID PLAN HMO/IPA/PPO
7 ☐ NO CHARGE
8 ☐ OTHER *[Specify]*

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

9. PATIENT'S COMPLAINT(S), SYMPTOM(S), OR OTHER REASON(S) FOR THIS VISIT *[In patient's own words]*
a. MOST IMPORTANT
b. OTHER

10. PHYSICIAN'S DIAGNOSES
a. PRINCIPAL DIAGNOSIS/PROBLEM ASSOCIATED WITH ITEM 9a.
b. OTHER SIGNIFICANT CURRENT DIAGNOSES

11. HAVE YOU SEEN PATIENT BEFORE?
1 ☐ YES 2 ☐ NO
IF YES, FOR THE CONDITION IN ITEM 10a?
1 ☐ YES 2 ☐ NO

12. DIAGNOSTIC/SCREENING SERVICES THIS VISIT *[Check all ordered or provided]*
1 ☐ NONE
2 ☐ PAP TEST
3 ☐ PELVIC EXAM
4 ☐ BREAST PALPATION
5 ☐ MAMMOGRAM
6 ☐ VISUAL ACUITY
7 ☐ BLOOD PRESSURE CHECK
8 ☐ URINALYSIS
9 ☐ CHEST X-RAY
10 ☐ DIGITAL RECTAL EXAM
11 ☐ PROCT/SIGMOIDOSCOPY
12 ☐ STOOL BLOOD EXAM
13 ☐ ORAL GLUCOSE TOL.
14 ☐ CHOLESTEROL MEASURE
15 ☐ HIV SEROLOGY
16 ☐ OTHER BLOOD TEST
17 ☐ OTHER *[Specify]*

13. COUNSELING/ADVICE *[Check all ordered or provided]*
1 ☐ NONE
2 ☐ WEIGHT REDUCTION
3 ☐ CHOLESTEROL REDUCTION
4 ☐ SMOKING CESSATION
5 ☐ HIV TRANSMISSION
6 ☐ BREAST SELF-EXAM
7 ☐ OTHER

14. NON-MEDICATION THERAPY *[Check all ordered or provided]*
1 ☐ NONE
2 ☐ PSYCHOTHERAPY
3 ☐ CORRECTIVE LENSES
4 ☐ AMBULATORY SURGERY
5 ☐ PHYSIOTHERAPY
6 ☐ OTHER *[Specify]*

15. MEDICATION THERAPY *[Record all new or continued medications ordered or provided at this visit. Use the same brand name or generic name entered on any Rx or office medical record. Include immunizing and desensitizing agents.]*
IF NONE, CHECK HERE ☐

	a. NEW MEDICATION? YES	a. NEW MEDICATION? NO	b. FOR DX IN ITEM 10a? YES	b. FOR DX IN ITEM 10a? NO
1.	1 ☐	2 ☐	1 ☐	2 ☐
2.	1 ☐	2 ☐	1 ☐	2 ☐
3.	1 ☐	2 ☐	1 ☐	2 ☐
4.	1 ☐	2 ☐	1 ☐	2 ☐
5.	1 ☐	2 ☐	1 ☐	2 ☐

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

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

* U.S. GOVERNMENT PRINTING OFFICE:1988-226-197

Figure 1. Patient Record form

patients 45–64 years old, from 6 to 13 visits per 100 persons.

Males made the majority of visits to urologists (72 percent) while females made the majority of visits to all physicians (about 60 percent). Males 25 years of age and over made almost 66 percent of the visits to urologists, and those 25–44 years of age accounted for 5 times more visits than the 15–24 year olds. The visit rate for males rose from 1 visit per 100 persons for patients under 15 years of age to 33 visits per 100 persons for patients 75 years of age and over. The most significant increase in the visit rate was for male patients 65–74 years of age with 23 visits per 100 persons compared with 8 visits per 100 persons for patients 45–64 years old. Males also showed a significant increase in the visit rate between the 65–74 and 75 years and over age groups, from 23 to 33 visits per 100 persons (table 2).

The percent distribution of visits for females was similar in that a significant increase occurred for female patients 25–44 years old. As compared with 1975–76, the percent of visits by males to urologists has increased by about 21 percent while the percent of visits by females has decreased by about 30 percent. The visit rate for males was 3 times the rate for females, 6 and 2 visits per 100 persons, respectively. Visit rates for males were significantly higher

Table 1. Average annual number, percent distribution, and rate of office visits, by physician specialty: United States, 1989–90

Physician specialty	Average annual number of visits in thousands	Percent distribution	Average annual number of visits per 100 persons
All visits	698,653	100.0	285
General and family practice	208,045	29.8	85
Internal medicine	87,719	12.6	36
Pediatrics	84,280	12.1	34
Obstetrics and gynecology	59,812	8.6	24
Opthalmology	41,302	5.9	17
Orthopedic surgery	34,033	4.9	14
Dermatology	25,164	3.6	10
General surgery	23,891	3.4	10
Psychiatry	18,790	2.7	8
Otolaryngology	16,957	2.4	7
Cardiovascular disease	11,040	1.6	5
Urological surgery	9,852	1.4	4
Neurology	6,167	0.9	3
All other specialties	71,603	10.2	29

Table 2. Average annual number and percent distribution and average annual rate of office visits to urologists, by sex and age: United States, 1989–90

Sex and age	Average annual number of visits in thousands	Percent distribution	Average annual number of visits per 100 persons
Total visits	9,852	100.0	4
Under 15 years	492	5.0	1
15–24 years	370	3.8	1
25–44 years	2,120	21.5	3
45–64 years	2,575	26.1	6
65–74 years	2,377	24.1	13
75 years and over	1,917	19.5	17
Male	7,098	72.0	6
Under 15 years	369	3.7	1
15–24 years	268	2.7	2
25–44 years	1,446	14.7	4
45–64 years	1,818	18.5	8
65–74 years	1,805	18.3	23
75 years and over	1,392	14.1	33
Female	2,754	28.0	2
Under 15 years	123	1.3	0
15–24 years	102	1.0	1
25–44 years	674	6.8	2
45–64 years	757	7.7	3
65–74 years	573	5.8	6
75 years and over	526	5.3	7

than visit rates for females for the three oldest age groups (table 2).

Visits to urologists by the patient's race are shown in table 3. About 9 of every 10 patients were white persons, which is similar to that for all physicians. When visit rates are compared, there are no statistical differences between the visit rates for white, black, or "other" race groups. Males accounted for more visits to urologists than females did for all race groups.

The expected sources of payment for visits to the urologist are shown in figure 2. Blue Cross/Blue Shield or another commercial insurance was an expected source of payment in about 49 percent of the visits, which is about 40 percent higher than for all physicians. In about 46 percent of the visits to urologists, government insurance (Medicare and Medicaid) was the expected source of payment for all or part of the visit, which is almost 70 percent higher than for all physicians. Self payment was an expected source of payment in approximately 16 percent of the visits or about half as many compared with all physicians. HMO's (health maintenance organizations), IPA's (individual practice associations), and other prepaid plans were the expected source of payment in about 7.2 percent of the visits to urologists as compared with 14.8 percent for all physicians.

As shown in table 4, about 14 percent of visits made to the urologist were referred by another physician, which is considerably higher than 5.5 percent for all physicians. Most visits to the urologist were "old patients" (patients who had previously visited the physician) with an "old problem" (a condition previously treated by the physician), which represented almost three-quarters of the visits. Old patients with new problems represented about 5 percent of the visits and new patients to the urologists represented about one-fifth of the visits. Compared with all physicians, urologists saw a higher percent of old patients with old problems and a smaller percent of new patients. No statistical difference was found in comparison with data from the 1975–76 NAMCS.

Patient's reason for visit

The principal reasons for visit are presented in tables 5 and 6. The principal reason for visit is the patient's problem, complaint, or symptom listed first on item 9 of the Patient Record that necessitated the office visit. These data have been classified and coded according to the *Reason for Visit Classification for Ambulatory Care* (RVC) (2).

The RVC is classified into eight modules as shown in table 5. Almost 60 percent of the principal reasons for visit to the urologist were for symptoms, with over half of these

Table 3. Average annual number, percent distribution, and rate of visits to urologists, by race and sex: United States, 1989–90

Race and sex	Average annual number of visits in thousands	Percent distribution	Average annual number of visits per 100 persons
Total visits	9,852	100.0	4
Black	747	7.6	2
Male	574	5.8	4
Female	173	1.8	1
White	8,785	89.2	4
Male	6,281	63.8	6
Female	2,503	25.4	3
Other[1]	134	1.4	2
Male	102	1.0	2
Female	32	0.3	.1
Unspecified	186	1.9	...

[1]Includes Asian and Pacific Islander and American Indian, Eskimo, and Aleut.

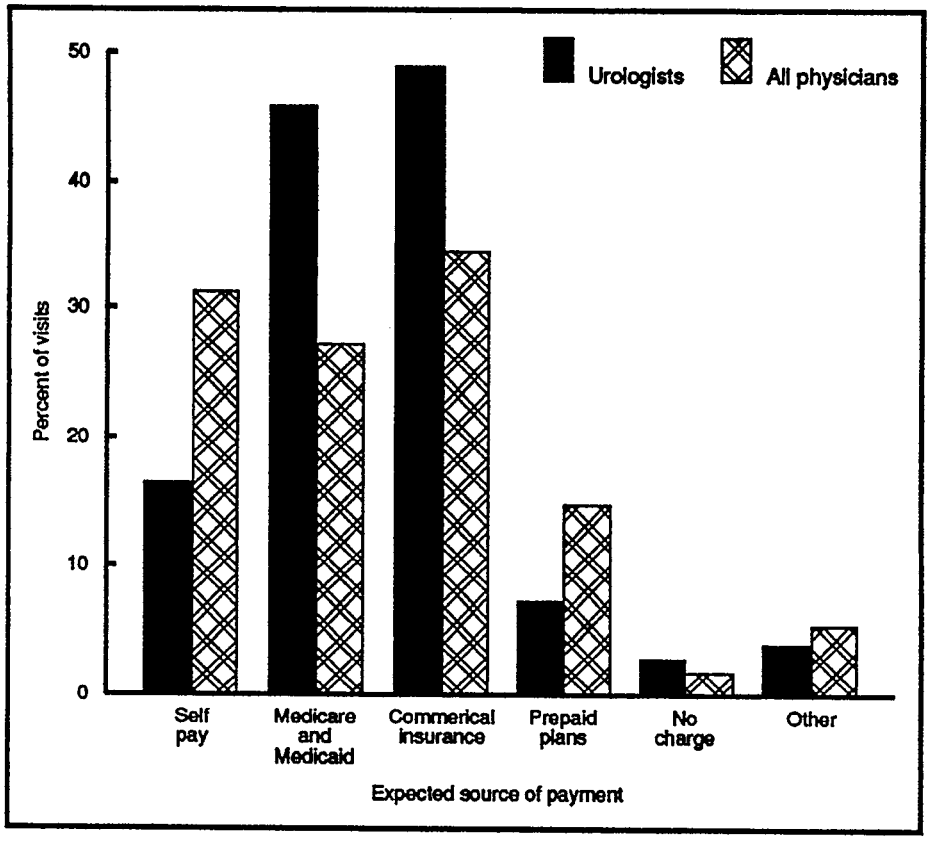

Figure 2. Expected source of payment to urologist: United States, 1989–90

visits being symptoms referable to the genitourinary system. Other principal reasons for visit were for treatments (about 17 percent) and for diseases (almost 14 percent). The principal reasons for visit to all physicians fell mostly into the symptom module (approximately 57 percent); the diagnostic, screening, and preventive module (about 16 percent); and the treatment module (about 10 percent). Differences between urologists and all physicians in these modules were statistically significant.

The top 20 principal reasons for visit to the urologist, which accounted for about three-fifths of all visits, are listed in table 6. Other urinary dysfunctions (7.8 percent) is the first listed principal reason for visit and includes problems of retention, hesitancy, or volume of urine. This reason for visit has increased significantly since 1975–76 when it represented 3.4 percent of the visits to urologists and was the 8th listed reason for visit (1). This change may be associated with the significant increase in the percent of visits for the principal diagnosis, hyperplasia of prostate (ICD–9–CM code 600), discussed later in this report, and the increase in the percent of visits made by patients 65 years of age and over. Frequency and urgency of urination, abnormalities of urine, painful urination, and incontinence account for five of the first ten reasons for visit. Painful urination decreased significantly from 10.7 percent in 1975–76 to 4.5 percent in 1989–90, a decrease of 58 percent (1) and may be associated with the significant decrease in the percent of visits for the principal diagnosis, inflammatory diseases of the prostate (ICD–9–CM code 601). Most of the other principal reasons for visit have remained statistically similar since 1975–76.

Physician's diagnosis

Data on the principal diagnosis rendered by the urologist are shown in tables 7 and 8. The principal diagnosis is recorded on item 10a of the Patient Record and corresponds to the principal reason for visit (item 9a). The diagnoses are coded and classified according to the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD–9–CM) (3).

As shown in table 7, the ICD–9–CM is organized into broad categories relating to the major systems of the body. As expected, diseases of the genitourinary system represented over half of the

Table 4. Average annual number and percent distribution of office visits to urologists, by patients' referral status and visit status: United States, 1989–90

Referral and visit status	Average annual number of visits in thousands	Percent distribution
All visits	9,852	100.0
Patient referred		
Yes	1,412	14.3
No	8,440	85.7
Visit status		
New patient	2,027	20.6
Old patient, new problem	476	4.8
Old patient, old problem	7,349	74.6

Table 5. Average annual number and percent distribution of office visits to urologists, by principal reason for visit module: United States, 1989–90

Principal reason for visit module and RVC code[1]		Average annual number of visits in thousands	Percent distribution
All principal reasons for visit		9,852	100.0
Symptom module	S100–S999	5,903	59.9
Symptoms referable to the genitourinary system	S640–S829	4,560	46.3
Disease module	D001–D999	1,360	13.8
Diagnostic, screening, and preventive module	X100–X599	528	5.4
Treatment module	T100–T899	1,704	17.3
All other modules[2]		357	3.6

[1]Based on *A Reason for Visit Classification for Ambulatory Care* (RVC) (2).
[2]Includes injury and adverse effects module; test results module; administrative module; uncodable and blank entries.

Table 6. Average annual number, percent distribution, and cumulative percent of office visits to urologists, by the 20 most common principal reasons for visit: United States, 1989–90

Rank	Principal reason for visit and RVC code[1]		Average annual number of visits in thousands	Percent distribution	Cumulative percent
	All reasons for visit		9,852	100.0	---
1	Other urinary dysfunctions	S660	771	7.8	7.8
2	Frequency and urgency of urination	S645	656	6.7	14.5
3	Abnormalities of urine	S640	485	4.9	19.4
4	Psychosexual disorders	S160	444	4.5	23.9
5	Painful urination	S650	441	4.5	28.4
6	Incontinence of urine (enuresis)	S655	395	4.0	32.4
7	Symptoms of prostate	S710	386	3.9	36.3
8	Cancer, urinary and male genital tract	D125	383	3.9	40.2
9	Urinary tract disease (except cystitis)	D705	348	3.5	43.7
10	Symptoms of scrotum and testes	S715	348	3.5	47.2
11	Diseases of the male genital organs	D710	334	3.4	50.6
12	Symptoms of the bladder	S665	271	2.8	53.4
13	Urinary tract infection	S675	268	2.7	56.1
14	Pain	S055	208	2.1	58.2
15	General medical exam	X100	182	1.9	60.1
16	Symptoms of penis	S700	154	1.6	61.7
17	Family planning	X500	124	1.3	63.0
18	Sterilization to be performed (at this visit)	X525	118	1.2	64.2
19	Back symptoms	S905	115	1.2	65.4
20	Other symptoms referable to urinary tract	S680	114	1.2	66.6

[1]Based on *A Reason for Visit Classification for Ambulatory Care* (RVC) (2).

diagnoses. Neoplasms, the second most frequent diagnosis category, represented about 12 percent of the visits. Together, these two categories accounted for approximately 71 percent of all the visits to urologists. The percent of visits to urologists that included diagnoses of neoplasms have significantly increased from 1975–76 to 1989–90 (from about 6 percent to almost 12 percent).

The top 20 diagnoses made by urologists in 1989–90, which represent almost 78 percent of all visits, are listed in table 8. Hyperplasia of prostate, the first-listed principal diagnosis, accounted for about 13 percent of the visits in 1989–90, a significant increase from 1975–76 when it represented almost 6 percent of the visits and was the fifth-listed principal diagnosis. Inflammatory diseases of prostate, the fourth-listed principal diagnosis, decreased significantly, from 9.3 percent of the visits in 1975–76 to 5.4 percent in 1989–90. Cystitis, which accounted for about 4 percent of the visits in 1989–90, decreased by approximately 60 percent since 1975–76. In the 1975–76 survey, cystitis was the most common diagnosis, with almost 11 percent of the visits (1). The other top 20 diagnoses in 1989–90 have remained similar since 1975–76.

Diagnostic and screening services

Urologists ordered or provided a urinalysis in about 72 percent of all visits, almost 6 times more than all physicians. In addition, a digital rectal exam was also ordered or provided 6 times more often by urologists (about 20 percent) than all other physicians (approximately 4 percent). Urologists performed or ordered fewer pelvic exams, blood pressure tests, and other blood tests than all other physicians. Approximately one-third of the visits included a diagnostic test that was not specified on the Patient Record (table 9).

Table 7. Average annual number and percent distribution of office visits to urologists, by principal diagnoses rendered by the physician: United States, 1989–90

Principal diagnoses and ICD–9–CM codes[1]		Average annual number of visits in thousands	Percent distribution
All principal diagnoses		9,852	100.0
Infectious and parasitic diseases	.001–139	213	2.2
Neoplasms	.140–239	1,169	11.9
Endocrine, nutritional, and metabolic diseases and immunity disorders	.240–279	92	0.9
Mental disorders	.290–319	330	3.4
Diseases of the nervous system and sense organs	.320–389	158	1.6
Diseases of the genitourinary system	.580–629	5,797	58.8
Symptoms, signs and ill-defined conditions	.780–799	593	6.0
Supplementary classifications	.V001–V082	850	8.6
All other diagnoses[2]		508	5.2
Unknown diagnoses[3]		141	1.4

[1]Based on *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD–9–CM) (3).
[2]Includes: diseases of the blood forming organs (280–289); diseases of the circulatory system (390–459); diseases of the respiratory system (460–519); diseases of the digestive system (520–579); complications of pregnancy, childbirth, and the puerperium (630–676); diseases of the skin and subcutaneous tissue (680–709); diseases of the musculoskeletal and connective tissue (710–739); congenital anomalies (740–759); certain conditions originating in the perinatal period (760–779); and injury and poisoning (800–999).
[3]Includes blank diagnoses, uncodable diagnoses, and illegible diagnoses.

Table 8. Average annual number, percent distribution, and cumulative percent of office visits to urologists, by principal diagnoses most frequently rendered by the physician: United States, 1989–90

Rank	Most common principal diagnoses and ICD–9–CM code[1]		Average annual number of visits in thousands	Percent distribution	Cumulative precent
	All principal diagnoses		9,852	100.0	---
1	Hyperplasia of prostate	.600	1,257	12.8	12.8
2	Other disorders of urethra and urinary tract	.599	994	10.1	22.9
3	Malignant neoplasm of prostate	.185	695	7.1	30.0
4	Inflammatory diseases of prostate	.601	536	5.4	35.4
5	Urethral stricture	.598	535	5.4	40.8
6	Calculus of kidney and ureter	.592	497	5.0	45.8
7	Symptoms involving urinary system	.788	469	4.8	50.6
8	Cystitis	.595	423	4.3	54.9
9	Sexual Deviations and disorders	.302	325	3.3	58.2
10	Malignant neoplasm of bladder	.188	233	2.4	60.6
11	Other postsurgical states	.V045	217	2.2	62.8
12	Contraceptive management	.V025	212	2.2	65.0
13	Urethritis, not sexually transmitted, and urethral syndrome	.597	198	2.0	67.0
14	Orchitis and epididymitis	.604	195	2.0	69.0
15	Disorders of penis	.607	187	1.9	70.9
16	Other disorders of bladder	.596	166	1.7	72.6
17	Other disorders of male genital organs	.608	148	1.5	74.1
18	Other paralytic syndromes	.344	148	1.5	75.6
19	Neoplasms of unspecified nature	.239	120	1.2	76.8
20	Redundant prepuce and phimosis	.605	103	1.0	77.8

[1]Based on *International Classification of Diseases, 9th Revision, Clinical Modification (ICD–9–CM)* (3).

Medication therapy

As shown in table 10, only about 40 percent of the visits made to urologists in 1989–90 were drug visits. A drug visit is one in which one or more medication(s) were prescribed or administered by the physician. In contrast, the majority of visits made to all physicians were drug visits (60 percent). Of the drug visits to urologists, about three-quarters were visits in which one drug was prescribed or administered. Of all the drugs prescribed or administered by ambulatory care physicians, the drugs prescribed or administered by urologists accounted for roughly 1 percent.

As shown in table 11, the estimated 5.5 million drug mentions by urologists are classified into therapeutic categories as defined by the *National Drug Code Directory* (4). The majority of drug mentions were antimicrobial agents (almost 52 percent), specifically sulfonamides and trimethoprim (about 13 percent), and urinary tract antiseptics (about 24 percent). No comparison is possible with the 1975–76 data because these data were not collected until 1980. The top 20 generic ingredients in order of frequency are listed in table 12. Trimethoprim, the first-listed generic ingredient, represented nearly 14 percent of the estimated 5.5 million drug mentions in 1989–90. Sulfamethoxazole and Ciprofloxacin HCL, the second- and third-listed generic ingredients, follow with approximately 12 percent and 8 percent, respectively. The 20 most frequent medication entries made by the physician on the Patient Record are listed in table 13. The physician is instructed to enter either the brand or generic name of the medication and to include both over-the-counter and prescription drugs that may be either prescribed or administered. Cipro and Macrodantin, two antibacterial medications, top the list with about 8 percent and 7 percent, respectively.

Duration and disposition

Of the visits made to urologists, approximately 60 percent lasted 15 minutes or less and approximately 35 percent lasted 16–30 minutes (table 14). The mean duration of a visit in 1989–90 was approximately 17 minutes, compared with approximately 16 minutes in 1975–76. Both means exclude visits of zero minutes. A visit of zero minutes is one in which the patient had no face-to-face contact with the physician but received care from a

Table 9. Average annual number and percent distribution of office visits to urologists and percent distribution for all phyiscians, by diagnostic service ordered or provided: United States, 1989–90

Diagnostic service ordered or provided	Visits to urologists		Visits to all physicians
	Average annual number of visits in thousands	Percent distribution	Percent distribution
Total visits	9,852	100.0	100.0
Pelvic exam	353	3.6	7.4
Blood pressure	1,105	11.2	36.7
Urinalysis	7,111	72.2	12.7
Digital rectal exam	1,954	19.8	3.6
Other blood test	605	6.1	13.0
Other listed services[1]	108	1.4	28.3
Other diagnostic services	3,280	33.3	25.2
None	1,446	14.7	37.2

[1]Includes pap test; breast palpation; mammogram; visual acuity; chest x ray; proctoscopy/sigmoidoscopy; stool blood exam; oral glucose tolerance test; cholesterol measure; HIV serology.

NOTE: Numbers may not add to totals because more than one diagnostic service was possible during the patient visit.

Table 10. Average annual number and percent distribution of office visits to urologists, by type of visit and number of medications ordered or prescribed: United States, 1989–90

Type of visit and number of medications	Average annual number of visits in thousands	Percent distribution
All visits	9,852	100.0
Type of visit		
Nondrug visit (0 medications)	5,759	58.5
Drug visit	4,092	41.5
Number of medications		
1	3,045	74.4
2	806	19.7
3 or more	242	5.9

Table 11. Average annual number and percent distribution of drug mentions to urologists by therapeutic category: United States, 1989–90

Therapeutic category[1]	Average annual number of visits in thousands	Percent distribution
All drug mentions	5,475	100.0
Antimicrobial agents	2,828	51.7
Sulfonamides and trimethoprim	719	13.1
Urinary tract antiseptics	1,285	23.5
Cardiovascular-renal drugs	564	10.3
Psychopharmacologic drugs	150	2.7
Gastrointestinal agents	133	2.4
Metabolic and nutrient agents	*62	*1.1
Hormones and agents affecting hormonal mechanisms	410	7.5
Skin/mucous membrane	111	2.0
Drugs used for relief of pain	358	6.5
Respiratory tract drugs	95	1.7
Unclassified and/or miscellaneous	600	11.0
All others[2]	163	3.0

[1]Therapeutic class based on the standard drug classification used in the *National Drug Code Directory*, 1985 Edition (4).

[2]Includes: anesthetic drugs, antidotes, hematologic agents, radiopharmaceutical contrast media, immunologic agents, neurologic drugs, oncolytics, ophthalmic drugs, otologic drugs, and antiparasitic agents.

member of the physician's staff. Visits of zero minutes accounted for approximately 1 percent of the visits, which was similar to that for all physicians (1.7 percent). The duration of visit does not include time spent waiting for the physician, waiting for test results, or time with someone else on the physician's staff.

As shown in table 14, most visits to the urologist had a disposition for the patient to return at a specific time (around 75 percent), which is statistically higher than for all physicians (about 62 percent). This was followed by instructions for the patient to return if needed (about 13 percent), which is approximately 42 percent less often than for all physicians. The 1989–90 disposition data are not statistically different than the 1975–76 disposition data.

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Table 12. Average annual number and percent distribution of the top 20 generic ingredients most often utilized by urologists: United States, 1989–90

Rank	Generic ingredient	Average annual number of mentions in thousands[1]	Percent distribution
	All drugs mentions. .	5,475	100.0
1	Trimethoprim	740	13.5
2	Sulfamethoxazole. . .	663	12.1
3	Ciprofloxacin HCL . .	454	8.3
4	Nitrofurantoin	386	7.1
5	Norfloxacin.	346	6.3
6	Oxybutynin.	251	4.6
7	Hyoscyamine	174	3.2
8	Doxycycline	169	3.1
9	Phenazopyridine . . .	155	2.8
10	Testosterone.	146	2.7
11	Acetaminophen	127	2.3
12	Ibuprofen.	119	2.2
13	Atropine	108	2.0
14	Tetracycline	102	1.9
15	Oxycodone.	90	1.6
16	Methylene blue	90	1.6
17	Methenamine	89	1.6
18	Phenyl salicylate . . .	86	1.6
19	Yohimbene.	*71	1.3
20	Cephalexin.	*59	*1.1

[1]Frequency of mention combines single-ingredients agents with mentions of the agents as an ingredient in a combination drug.

Table 13. Average annual number and percent distribution of the top 20 medication entries made by urologists: United States, 1989–90

Rank	Entry name[1]	Average annual number of mentions in thousands	Percent distribution
	All drug mentions . . .	5,475	100.0
1	Cipro.	454	8.3
2	Macrodantin	381	7.0
3	Noroxin	346	6.3
4	Bactrim DS	305	5.6
5	Ditropan.	242	4.4
6	Septra DS.	145	2.7
7	Pyridium.	139	2.5
8	Bactrim.	113	2.1
9	Motrin	99	1.8
10	Tetracycline.	94	1.7
11	Urised	86	1.6
12	Septra	80	1.5
13	Depo-Testosterone . .	77	1.4
14	Yohimbene	*71	1.3
15	Doxycycline.	*64	1.2
16	Ampicillin	*59	*1.1
17	Testosterone	*56	*1.0
18	Percocet-5	*44	*0.8
19	Doryx.	*44	*0.8
20	Cystospaz.	*41	*0.8

[1]The entry name recorded on the Patient Record form could be either the trade or generic name of the medication.

Table 14. Average annual number and percent distribution of office visits to urologists, by duration and disposition: United States, 1989–90

Duration and disposition	Average annual number of visits in thousands	Percent distribution
Total	9,852	100.0
Duration of visit		
Zero minutes	92	0.9
1–5 minutes.	981	10.0
6–10 minutes	2,218	22.5
11–15 minutes	2,575	26.1
16–30 minutes	3,441	34.9
31 minutes or more . . .	546	5.5
Disposition of visit		
No followup planned . .	3,326	3.4
Return at specific time	7,406	75.2
Return if needed	1,307	13.3
Telephone followup planned.	238	2.4
Referred to other physician.	144	1.5
Referred to referring physician.	134	1.4
Admit to hospital	292	3.0
Other	438	4.4

Symbols

- - -	Data not available
. . .	Category not applicable
-	Quantity zero
0.0	Quantity more than zero but less than 0.05
Z	Quantity more than zero but less than 500 where numbers are rounded to thousands
*	Figure does not meet standard of reliability or precision (estimate is based on fewer than 20 births in numerator or denominator)

Technical notes

Sources of data and sample design

The information presented in this report is based on data collected by means of the National Ambulatory Medical Care Survey (NAMCS) from March 20, 1989, through December 30, 1990. The target universe of NAMCS includes office visits made in the United States 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.

A multistage probability sample design is used in NAMCS, involving samples of primary sampling units (PSU's), physician practices within PSU's, and patient visits within physician practices. The PSU's are counties, groups of counties, county equivalents (such as parishes or independent cities), or towns and townships (for some PSU's in New England). A sample of 2,535 non-Federal, office-based physicians was selected in 1989 and 2,528 non-Federal, office-based physicians were selected in 1990 from master files maintained by the American Medical Association and American Osteopathic Association. The sample included 118 urologists in both 1989 and 1990, of which 94 were eligible in 1989 and 96 were eligible in 1990. The physician response rate for the 1989 NAMCS was 74 percent; in 1990, it was 75 percent. Urologists had a response rate of 76 percent in 1989 and 72 percent in 1990. Sample physicians were asked to complete patient records (figure 1) for a systematic random sample of office visits occurring during a randomly assigned 1-week reporting period. Responding physicians completed 38,384 patient records in 1989 and 43,469 in 1990. Urologists completed 1,569 Patient Record forms in 1989 and 1,584 in 1990. Characteristics of the physician's practice, such as primary specialty and type of practice, were obtained from the physicians during an induction interview. The U.S. Bureau of the Census, Housing Surveys Branch, was responsible for the survey's data collection. Processing operations and medical coding were performed by the National Center for Health Statistics, Hospital Discharge and Ambulatory Care Survey Section, Research Triangle Park, North Carolina.

Sampling errors

The standard error is primarily a measure of the sampling variability that occurs by chance when only a sample, rather than an entire universe, is surveyed. The relative standard error of an estimate is obtained by dividing the standard error by the estimate itself; the result is then expressed as a percent of the estimate. Approximate relative standard errors (RSE's) of selected aggregate statistics are shown in table I, and the relative standard errors of the estimated number of drug mentions are shown in table II. All frequencies in this report are average annual figures and must be doubled before a significance test can be performed. Relative standard errors for aggregate visits and drug estimates may be calculated using the following general formula, where x is the aggregate of interest in thousands, and A and B are the appropriate coefficient from table IV.

$$\text{RSE}(x) = \sqrt{A + \frac{B}{x}} \times 100.0$$

Approximate relative standard errors for estimates of the percent of visits are shown in table III. The RSE's for percent may be calculated using the following general formula, where p is the percent of interest and x is the denominator of the percent in thousands, using the appropriate coefficient from table IV.

$$\text{RSE}(p) = \sqrt{\frac{B(1-p)}{px}} \times 100.0$$

Adjustments for nonresponse

Estimates from NAMCS data were adjusted to account for sample physicians who were in scope but did not participate in the study. This adjustment was calculated to minimize the impact of response on final

Table I. Relative standard errors for estimated numbers of office visits: National Ambulatory Medical Care Survey, 1989–90

Estimated number of office visits in thousands	*All specialties*	*Urologists*
	Relative standard error (RSE) in percent	
100	72.7	31.1
200	51.5	23.4
300	42.1	20.1
400	36.5	18.3
500	32.6	17.1
700	27.6	15.6
1,000	23.2	14.4
2,000	16.5	12.9
5,000	10.7	11.9
7,000	9.2	11.7
10,000	7.9	11.5
30,000	5.2	11.2
50,000	4.5	11.2
100,000	3.9	11.2
500,000	3.3	11.1
700,000	3.2	11.1
1,400,000	3.2	...

NOTE: Urologist 30 percent RSE = 110,000; all specialties 30 percent RSE = 593,000.

Example of use of table: An aggregate estimate of 5 million visits to a urologist has a relative standard estimate of 11.9 percent or a standard error of 595 thousand visits (11.9 percent of 5 million).

Table II. Relative standard errors for estimated numbers of drug mentions: National Ambulatory Medical Care Survey, 1989–90

Estimated number of drug mentions in thousands	*All specialties*	*Urologists*
	Relative standard error (RSE) in percent	
100	90.3	36.1
200	63.9	27.0
300	52.3	23.3
400	45.3	21.1
500	40.6	19.7
700	34.3	18.0
1,000	28.8	16.6
2,000	20.6	14.7
5,000	13.4	13.5
7,000	11.5	13.3
10,000	9.9	13.1
30,000	6.5	12.8
50,000	5.7	12.8
100,000	4.9	12.7
500,000	4.2	12.7
700,000	4.1	12.7
1,400,000	4.0	...

NOTE: Urologist 30 percent RSE = 155,000; all specialties 30 percent RSE = 922,000.

Example of use of table: An aggregate estimate of 2 million drug mentions by a urologist has a relative standard estimate of 14.7 percent or a standard error of 294 thousand drug mentions (14.7 percent of 2 million).

Table III. Standard errors for percents of estimated numbers of office visits for the National Ambulatory Medical Care Survey: United States, 1989–90

Base of percent (visits in thousands)	Estimated percent					
	1 or 99	5 or 95	10 or 90	20 or 80	30 or 70	50
	Standard error in percentage points					
100	2.9	6.3	8.7	11.6	13.3	14.6
200	2.1	4.5	6.2	8.2	9.4	10.3
500	1.3	2.8	3.9	5.2	6.0	6.5
700	1.1	2.4	3.3	4.4	5.0	5.5
1,000	0.9	2.0	2.8	3.7	4.2	4.6
2,000	0.6	1.4	2.0	2.6	3.0	3.3
5,000	0.4	0.9	1.2	1.7	1.9	2.1
7,000	0.4	0.8	1.0	1.4	1.6	1.7
10,000	0.3	0.6	0.9	1.2	1.3	1.5
20,000	0.2	0.5	0.6	0.8	1.0	1.0
30,000	0.2	0.4	0.5	0.7	0.8	0.8
50,000	0.1	0.3	0.4	0.5	0.6	0.7
80,000	0.1	0.2	0.3	0.4	0.5	0.6
100,000	0.1	0.2	0.3	0.4	0.4	0.5
500,000	0.0	0.1	0.1	0.2	0.2	0.2
1,400,000	0.0	0.1	0.1	0.1	0.1	0.1

Example of use of table: An estimate of 30 percent based on an aggregate estimate of 10 million visits in 1989–90 has a standard error of 4.2 percent or a relative standard error of 14.0 percent (4.2 percent divided by 30 percent).

estimates by imputing to nonresponding physicians data from visits to similar physicians. For this purpose, physicians were judged similar if they had the same specialty designation and practiced in the same PSU.

Test of significance and rounding

In this report, the determination of statistical inference is based on a two-sided *t*-test. The Bonferroni inequality was used to estimate the critical value for statistically significant differences (0.05 level of significance). Terms relating to differences such as "higher," "less," and so forth indicate that the differences are statistically significant. Terms such as "similar" or "no difference" mean that no statistical significance exists between the estimates being compared. In the tables, estimates of office visits have been rounded to the nearest thousand. Consequently, estimates will not always add to totals. Rates and percents were calculated from original unrounded figures and do not necessarily agree with percents calculated from rounded data.

Table IV. Coefficients appropriate for determining relative standard errors, by type of estimate and physician specialty: National Ambulatory Medical Care Survey, 1989–90

Type of estimate and physician specialty	Coefficient	
	A	B
Visits		
Overall totals	0.00097549	52.77952184
Urologist	0.01236777	8.46452955
Drug mentions		
Overall totals	0.00157151	81.47054833
Urologist	0.01603845	11.42009284

Definition of terms

Ambulatory patient—An ambulatory patient is an individual seeking personal health services who is not currently admitted to any health care institution on the premises.

Drug mention—A drug mention is the physician's entry of a pharmaceutical agent—by any route of administration—for prevention, diagnosis, or treatment. Generic as well as brand-name drugs are included, as are nonprescription and prescription drugs. Along with all new drugs, the physician also records continued medications if the patient was specifically instructed during the visit to continue the medication.

Drug visit—A drug visit is a visit in which medication was prescribed or provided by the physician.

Office—Offices are the premises physicians identify as locations for their ambulatory practice; these customarily include consultation, examination, or treatment spaces that patients associate with the particular physician.

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

Urologist—A urologist is a physician self-classified as a urological surgeon on the American Medical Association (AMA) or American Osteopathic Association (AOA) master files.

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

Trade name disclaimer

The use of trade names is for identification only and does not imply endorsement by the Public Health Service, U.S. Department of Health and Human Services.

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