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Office Visits to Otolaryngologists: National Ambulatory Medical Care Survey, United States: 1975-76¹

Based on data from the National Ambulatory Medical Care Survey (NAMCS), this report describes an estimated 27,192,000 visits made to the offices of otolaryngologists over the 2-year span from January 1975 through December 1976. NAMCS is a sample survey designed to explore the provision and utilization of ambulatory care in the physician's office—the setting where most Americans seek health care. The survey is conducted yearly throughout the coterminous United States by the Division of Health Resources Utilization Statistics of the National Center for Health Statistics. The survey sample is selected from doctors of medicine and osteopathy who are principally engaged in office-based, patient-care practice. Excluded from the sample are an indeterminate number of physicians who render some office-based ambulatory care but whose patient-care activities are secondary to another primary role such as teaching, research, or administration. Also excluded from the NAMCS scope are physicians who are hospital based; those whose specialty is anesthesiology, pathology, or radiology; and physicians in Federal Service.

Because the estimates presented in this report are based on a sample rather than on the entire universe of office-based physicians, they are subject to sampling variability. See the Technical Notes for an explanation and for guidelines in judging the relative precision of the estimates. The directions offered there also provide the basis for judging the statistical signif-

icance of differences between estimates that the reader may desire to compare.

DATA HIGHLIGHTS

With an estimated 27,192,000 office visits during the 2-year span 1975-76, otolaryngologists were among the 13 specialists who figured most prominently in the provision of office-based ambulatory care (see table 1).

Compared with the entire universe of office-based physicians, otolaryngologists reversed the overall preference for solo over multiple-member practice (table 2); well over one-half (61 percent) of visits to otolaryngologists were made to those in multiple-member practice arrangements.

Table 1. Number of office visits to the 13 most visited specialists, by type of specialty in rank order: United States, 1975-76

Rank	Type of specialty	Number of visits in thousands
1	General and family practice.....	460,297
2	Internal medicine.....	130,367
3	Pediatrics.....	107,085
4	Obstetrics and gynecology.....	97,070
5	General surgery.....	77,259
6	Ophthalmology.....	53,959
7	Orthopedic surgery.....	47,152
8	Dermatology.....	35,721
9	Psychiatry.....	30,616
10	Otolaryngology.....	27,192
11	Urology.....	20,728
12	Cardiovascular disease.....	13,517
13	Neurology.....	3,784

¹This report was prepared by Hugo Koch, Division of Health Resources Utilization Statistics.

Table 2. Number and percent distribution of office visits to otolaryngologists, and percent distribution of office visits to all specialists by physician characteristics: United States, 1975-76

Physician characteristic	Visits to otolaryngologists		Visits to all specialists
	Number in thousands	Percent distribution	Percent distribution ¹
All visits.....	27,192	100.0	100.0
<u>Location of practice</u>			
Metropolitan area ² ..	20,502	75.4	73.3
Nonmetropolitan area.....	6,691	24.6	26.7
<u>Type of practice</u>			
Solo	10,524	38.7	60.0
Other.....	16,668	61.3	40.0

¹Based on an estimated 1,155,900,000 visits made to all office-based physicians in 1975 and 1976.

²Location within a standard metropolitan statistical area (SMSA). Composition of SMSA's does not reflect 1974 adjustments.

Though otolaryngologists treated patients of all ages, the median visit age of 35 years which typified their office-based practice was not substantially different from the median visit age of 37 years characteristic of overall office-based practice. However, among otolaryngologists, there did appear to be a relatively greater concentration of visits (22 percent) by patients under 15 years of age (table 3).

Almost one-half (47 percent) of visits to otolaryngologists were made by male patients, a proportion that somewhat exceeded that found in overall office-based practice (table 3).

The 31 percent of visits to otolaryngologists made by new patients is about twice the comparable proportion found on the average among all office-based practitioners (*prior-visit status*, table 3). Indeed, among the most visited specialists (listed in table 1), only neurologists exceeded otolaryngologists in this proportion. Contributing in part to this increased presence of new patients is the finding that 5.8 percent of visits to otolaryngologists were referrals, a referral rate that more than doubled the average rate of 2.6 percent common to overall office-based practice. For the 10,907,000 visits at

Table 3. Number and percent distribution of office visits to otolaryngologists, and percent distribution of office visits to all specialists, by patient characteristics: United States, 1975-76

Patient characteristic	Visits to otolaryngologists		Visits to all specialists
	Number in thousands	Percent distribution	Percent distribution ¹
All visits.....	27,192	100.0	100.0
<u>Age</u>			
Under 15 years.....	5,967	22.0	18.1
15-24 years.....	3,458	12.7	15.1
25-44 years.....	7,434	27.3	25.5
45-64 years.....	6,623	24.4	25.1
65 years and over....	3,710	13.6	16.2
<u>Sex</u>			
Female.....	14,412	53.0	60.4
Male.....	12,781	47.0	39.6
<u>Prior-visit status</u>			
New patient.....	8,471	31.2	14.6
Old patient, new problem.....	2,436	9.0	23.2
Old patient, old problem.....	16,285	59.9	62.3

¹Based on an estimated 1,155,900,000 visits made to all office-based physicians in 1975 and 1976.

which a new problem was presented to the otolaryngologist (i.e., 8,471,000 visits by new patients plus 2,436,000 visits by old patients with new problems), there were 16,285,000 return visits, an average of 1.5 return visits per new problem per year, a return-visit rate that did not differ substantially from the average of 1.6 return visits found in overall office practice.

Table 4 shows the 10 complaints or symptoms that most frequently prompted a visit to the otolaryngologist. The terms and codes applied to these symptoms or complaints are those developed for use in the NAMCS.²

²National Center for Health Statistics: The National Ambulatory Medical Care Survey: Symptom classification, United States. *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.

Table 4. Number, percent, and cumulative percent of office visits to otolaryngologists, by the 10 most common complaints or symptoms presented by patients, classified by NAMCS codes and ranked by frequency of visits: United States, 1975-76

Rank	Complaint or symptom and NAMCS code	Number of visits in thousands	Percent of visits	Cumulative percent
1	Earache..... 735	2,853	10.5	10.5
2	Hearing dysfunctions other than deafness..... 731	2,339	8.6	19.1
3	Ear symptoms n.e.c. (e.g., foreign body in ear, itching, swelling, or mass)..... 740	2,195	8.1	27.2
4	Sore throat..... 520	2,018	7.4	34.6
5	Nasal congestion..... 301	1,624	6.0	40.6
6	Pain, swelling, injury of face and neck region..... 410	1,028	3.8	44.4
7	Plugged feeling in ear..... 737	1,010	3.7	48.1
8	Headache..... 056	723	2.7	50.8
9	Sinus problems..... 304	717	2.6	53.4
10	Vertigo..... 069	660	2.4	55.8

The complaints that patients presented to office-based otolaryngologists signaled conditions of illness or injury that were about equally divided between acute problems, defined for NAMCS use as conditions having an onset within 3 months of the visit, and chronic problems, defined as preexisting conditions having an onset of 3 months or more before the visit. (In overall office-practice, visits for acute problems outnumbered those for chronic problems by a ratio of about 1.2 to 1.) Only urologists and dermatologists exceeded otolaryngologists in the proportion of visits classified as "chronic problem, flare-up," that is, sudden exacerbation of a preexisting chronic condition. An estimated 19 percent of the otolaryngologist's visits fell into this category. The overall average for office-based practice was about 11 percent.

Table 5 presents data on the 10 principal diagnoses most frequently rendered by the office-based otolaryngologist. The *principal* diagnosis was the first-listed diagnosis on a survey form that permitted up to three diagnostic entries. Table 6 classifies all principal diagnoses made by otolaryngologists by major diagnostic groups. Diagnostic classes and codes are those established by the *Eighth Revision International Classification of Diseases, Adapted for Use in the United States, 1968 (ICDA)*.³

³National 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, 1968.

Table 5. Number, percent, and cumulative percent of office visits to otolaryngologists, by the 10 principal diagnoses most frequently rendered by the physicians in rank order: United States, 1975-76

Rank	Principal diagnosis and ICDA code	Number of visits in thousands	Percent of visits	Cumulative percent
1	Otitis media.....381	3,518	12.9	12.9
2	Medical and surgical aftercare..... Y10	2,394	8.8	21.7
3	Other diseases of ear and mastoid process..... 387	2,038	7.5	29.2
4	Otitis externa.....380	1,787	6.6	35.8
5	Hay fever.....507	1,637	6.0	41.8
6	Deafness, other than deaf mutism.....389	1,276	4.7	46.5
7	Chronic sinusitis.....503	1,122	4.1	50.6
8	Hypertrophy of tonsils and adenoids.....500	999	3.7	54.3
9	Chronic pharyngitis and nasopharyngitis.....502	851	3.1	57.4
10	Other diseases of respiratory system.....508	768	2.8	60.2

Table 6. Number and percent distribution of office visits to otolaryngologists, by major diagnostic group: United States, 1975-76

Major diagnostic group and ICDA codes	Number of visits in thousands	Percent distribution
All diagnostic groups.....	27,192	100.0
Infective and parasitic diseases..... 000-136	504	1.9
Diseases of the nervous system and sense organs..... 320-389	10,497	38.6
Diseases of the respiratory system..... 460-519	8,716	32.1
Diseases of the digestive system..... 520-577	588	2.2
Diseases of the skin and subcutaneous tissue..... 680-709	479	1.8
Symptoms and ill-defined conditions..... 780-796	1,782	6.6
Accidents, poisonings, and violence..... 800-999	469	1.7
Special conditions and examinations without sickness..Y00-Y13	2,692	9.9
Residual.....	1,466	5.2

To establish a diagnosis, office-based otolaryngologists relied chiefly on a limited history and examination (table 7), that is, one focused on the body sites specific to their professional perspective and concerned primarily with the patient's chief complaint (e.g., earache or sore throat). Use of laboratory tests and blood pressure checks was minimal compared with the average use of these diagnostic procedures in overall office-based practice. Drug therapy was the treatment most frequently provided by otolaryngologists, who used it in about 48 percent of visits, a proportion that roughly paralleled its use by the average office-based physician. The use of minor surgical procedures in the office of the otolaryngologist (in about 12 percent of visits) substantially exceeded the average use of office surgery in overall office practice (table 7).

Table 8 offers data on the severity of the problems that patients presented to the otolaryngologist, expressing the doctor's judgment of the extent of impairment that might result if no care were available. Closely paralleling the

Table 7. Number and percent of office visits to otolaryngologists, and percent of office visits to all specialists, by diagnostic and therapeutic services provided: United States, 1975-76

Diagnostic and therapeutic services provided	Visits to otolaryngologists		Visits to all specialists
	Number of visits in thousands	Percent	Percent ¹
No services provided.....	1,337	4.9	2.5
Diagnostic services:			
Limited history or examination.....	15,166	55.8	51.6
General history or examination.....	2,994	11.0	16.3
Clinical lab test.....	762	2.8	22.8
X-ray.....	1,636	6.0	7.6
Blood pressure check.....	496	1.8	33.2
Hearing test.....	3,548	13.1	1.3
Vision test.....	782	2.9	5.0
Therapeutic services:			
Drug prescribed.....	12,955	47.6	43.6
Injection.....	2,428	8.9	13.1
Immunization or desensitization.....	627	2.3	4.9
Office surgery.....	3,150	11.6	6.9
Medical counseling.....	2,871	10.6	13.0
Other services provided.....	1,754	6.5	5.6

¹Based on an estimated 1,155,900,000 visits made to all office-based physicians in 1975 and 1976.

Table 8. Number and percent distribution of office visits to otolaryngologists, and percent of office visits to all specialists, by selected visit characteristics: United States, 1975-76

Visit characteristic	Visits to otolaryngologists		Visits to all specialists
	Number in thousands	Percent distribution	Percent distribution ¹
All visits.....	27,192	100.0	100.0
<u>Serious of problem</u>			
Serious and very serious	4,934	18.2	19.2
Slightly serious.....	10,286	37.8	32.3
Not serious.....	11,972	44.0	48.5
<u>Disposition (selected actions)</u>			
No followup.....	3,913	14.4	12.3
Return at specified time.....	13,661	50.2	60.2
Return if needed.....	7,225	26.6	21.9
Telephone followup.....	682	2.5	3.5
Referred to other physician or agency.....	*458	*1.7	2.8
Admit to hospital.....	1,170	4.3	2.1
<u>Duration of visit</u>			
0 minute (no face-to-face encounter with physician).....	*434	*1.6	1.8
1-5 minutes.....	3,796	14.0	15.1
6-10 minutes.....	10,222	37.6	31.5
11-15 minutes.....	6,377	23.5	26.6
16-30 minutes.....	5,735	21.1	19.5
31 minutes or more.....	630	2.3	5.5

¹Based on an estimated 1,155,900,000 visits made to all office-based physicians in 1975 and 1976.

average tendency among all office-based practitioners, otolaryngologists judged most of their patients' problems (about 4 of every 5) to range from slightly serious to not serious in prognosis.

Otolaryngologists ended 1 of every 2 visits by scheduling a return visit at a specified time—their single, most frequent form of disposition (table 8). In their reliance on specific followup they were in accord with the general tendency found in all office-based practice, though they used this disposition action with a frequency which was substantially less than average, tending to apply with a greater-than-average frequency the nonspecific direction "return if

needed." The nonserious nature of most of the otolaryngologists' office practice is reflected in the small proportion of visits that resulted in hospital admission. It is noteworthy, however, that this relatively small admission rate was still more than double the average rate of hospital admission found in all office-based practice.

Three-fourths of visits to otolaryngologists involved a doctor-patient contact that was under 15 minutes in duration, the average contact probably lasting about 14 minutes—not substantially different from the average finding for all office-based practitioners (15 minutes).

TECHNICAL NOTES

SOURCE OF DATA. The information presented in this report is based on data collected in the National Ambulatory Medical Care Survey (NAMCS) during 1975 and 1976. The target population of the NAMCS encompasses office visits made within the coterminous United States by ambulatory patients to physicians not in Federal Service who are principally engaged in office practice, and not in the specialties of anesthesiology, pathology, or radiology. The National Opinion Research Center, under contract to the National Center for Health Statistics, was the organization responsible for the survey's field operation.

SAMPLE DESIGN. The NAMCS utilizes a multi-stage probability design that involves samples of primary sampling units (PSU's), physician practices within PSU's, and patient visits within practices. Each year a sample of practicing physicians is selected from master files maintained by the American Medical Association and the American Osteopathic Association. (For the 2-year period 1975-76, a total of 149 otolaryngologists were included in the Sample. They achieved a response rate of 83 percent.) Characteristics of the physician's practice, such as primary specialty and type of practice, are obtained during an induction interview.

The physicians are requested to complete Patient Records (brief encounter forms) for a systematic random sample of office visits during a randomly assigned weekly reporting period.⁴ (In the 2-year period 1975-76, sampled otolaryngologists completed a total of 2,786 Patient Records.) A detailed description of the NAMCS design and procedures has been presented in the publication "The National Ambulatory Medical Care Survey: 1975 Summary."⁵

SAMPLING ERRORS. Because the estimates for this report are based on a sample rather than on the entire universe, they are subject to sampling variability. The standard error is primarily a

measure of sampling variability. The relative standard error of an estimate is obtained by dividing the standard error of the estimate by the estimate itself and is expressed as a percent of the estimate. Relative standard errors of selected aggregate statistics are shown in table I. The standard errors appropriate for estimated percentages of visits are shown in table II.

DEFINITIONS. An *ambulatory patient* is an individual presenting himself for personal health services who is neither bedridden nor currently admitted to any health care institution.

An *office* is a place that the physician identifies as a location for his ambulatory practice. Responsibility over time for patient care and

Table I. Approximate relative standard error of estimated number of office visits: United States, 1975-76

Estimated number of office visits in thousands	Relative standard error in percent
600.....	30.2
1,000.....	23.5
2,000.....	16.7
4,000.....	12.0
10,000.....	8.0
40,000.....	4.8
200,000.....	3.4
1,000,000.....	3.1

Example of use of table: An aggregate estimate of 25,000,000 visits has a relative standard error of 6.4 percent or a standard error of 1,600,000 visits (6.4 percent of 25,000,000).

Table II. Approximate standard errors of percentages of estimated number of office visits: United States, 1975-76

Base of percentage number of visits in thousands	Estimated percentage					
	1 or 99	5 or 95	10 or 90	20 or 80	30 or 70	50
	Standard error in percentage points					
600.....	3.0	6.5	9.0	12.0	13.8	15.0
1,000.....	2.3	5.1	7.0	9.3	10.7	11.6
2,000.....	1.6	3.6	4.9	6.6	7.5	8.2
4,000.....	1.2	2.5	3.5	4.7	5.3	5.8
10,000.....	0.7	1.6	2.2	2.9	3.4	3.7
40,000.....	0.4	0.8	1.1	1.5	1.7	1.8
200,000.....	0.2	0.4	0.5	0.7	0.8	0.8
1,000,000.....	0.1	0.2	0.2	0.3	0.3	0.4

Example of use of table: An estimate of 20 percent based on an aggregate estimate of 80,000,000 visits has a standard error of 1.3 percent. The relative standard error of 20 percent is 6.5 percent (1.3 percent ÷ 20 percent).

⁴A facsimile of the Patient Record appears as Figure I.

⁵National Center for Health Statistics: The National Ambulatory Medical Care Survey: 1975 Summary, United States, January-December 1975. *Vital and Health Statistics*. Series 13-No. 33, DHEW Pub. (PHS) 78-1784. Washington. U.S. Government Printing Office, Dec. 1977.

professional services rendered there generally resides with the individual physician, rather than an institution.

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 health services.

A *physician* is a duly licensed doctor of medicine (MD) or doctor of osteopathy (DO) cur-

rently in office-based practice who spends time in caring for ambulatory patients. Excluded from NAMCS are physicians who are hospital based; physicians who specialize in anesthesiology, pathology, and radiology; physicians who are federally employed; physicians who treat only institutionalized patients; physicians employed full time by an institution; and physicians who spend no time seeing ambulatory patients.

Figure I. PATIENT RECORD

<p>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.</p>		<p>BN#</p>
<p>PATIENT RECORD NATIONAL AMBULATORY MEDICAL CARE SURVEY</p>		
<p>1. DATE OF VISIT Mo / Day / Yr _____</p>		
<p>2. DATE OF BIRTH Mo / Day / Yr _____</p>	<p>4. COLOR OR RACE</p> <p>1 <input type="checkbox"/> WHITE 2 <input type="checkbox"/> NEGRO/BLACK 3 <input type="checkbox"/> OTHER 4 <input type="checkbox"/> UNKNOWN</p>	<p>5. PATIENT'S PRINCIPAL PROBLEM(S) COMPLAINT(S), OR SYMPTOM(S) THIS VISIT <i>(In patient's own words)</i></p> <p>a. MOST IMPORTANT _____ b. OTHER _____</p>
<p>3. SEX</p> <p>1 <input type="checkbox"/> FEMALE 2 <input type="checkbox"/> MALE</p>		<p>6. SERIOUSNESS OF PROBLEM IN ITEM 5a <i>(Check one)</i></p> <p>1 <input type="checkbox"/> VERY SERIOUS 2 <input type="checkbox"/> SERIOUS 3 <input type="checkbox"/> SLIGHTLY SERIOUS 4 <input type="checkbox"/> NOT SERIOUS</p>
<p>8. MAJOR REASON(S) FOR THIS VISIT <i>(Check all major reasons)</i></p> <p>01 <input type="checkbox"/> ACUTE PROBLEM 02 <input type="checkbox"/> ACUTE PROBLEM, FOLLOW-UP 03 <input type="checkbox"/> CHRONIC PROBLEM, ROUTINE 04 <input type="checkbox"/> CHRONIC PROBLEM, FLARE-UP 05 <input type="checkbox"/> PRENATAL CARE 06 <input type="checkbox"/> POSTNATAL CARE 07 <input type="checkbox"/> POSTOPERATIVE CARE <i>(Operative procedure)</i> _____</p>		<p>9. PHYSICIAN'S PRINCIPAL DIAGNOSIS THIS VISIT</p> <p>a. DIAGNOSIS ASSOCIATED WITH ITEM 5a ENTRY _____ _____</p> <p>b. OTHER SIGNIFICANT CURRENT DIAGNOSES <i>(In order of importance)</i> _____ _____</p>
<p>10. DIAGNOSTIC/THERAPEUTIC SERVICES ORDERED/PROVIDED THIS VISIT <i>(Check all that apply)</i></p> <p>01 <input type="checkbox"/> NONE 02 <input type="checkbox"/> LIMITED HISTORY/EXAM 03 <input type="checkbox"/> GENERAL HISTORY/EXAM 04 <input type="checkbox"/> CLINICAL LAB. TEST 05 <input type="checkbox"/> BLOOD PRESSURE CHECK 06 <input type="checkbox"/> EKG 07 <input type="checkbox"/> HEARING TEST 08 <input type="checkbox"/> VISION TEST 09 <input type="checkbox"/> ENDOSCOPY 10 <input type="checkbox"/> OFFICE SURGERY</p>		<p>11. DISPOSITION THIS VISIT <i>(Check all that apply)</i></p> <p>1 <input type="checkbox"/> NO FOLLOW-UP PLANNED 2 <input type="checkbox"/> RETURN AT SPECIFIED TIME 3 <input type="checkbox"/> RETURN IF NEEDED, P.R.N. 4 <input type="checkbox"/> TELEPHONE FOLLOW-UP PLANNED 5 <input type="checkbox"/> REFERRED TO OTHER PHYSICIAN/AGENCY 6 <input type="checkbox"/> RETURNED TO REFERRING PHYSICIAN 7 <input type="checkbox"/> ADMIT TO HOSPITAL 8 <input type="checkbox"/> OTHER <i>(Specify)</i> _____</p>
		<p>12. DURATION OF THIS VISIT <i>(Time actually spent with physician)</i></p> <p>_____ MINUTES</p>
<p>HRA-34-3 REV. 8-74</p>		<p>DEPARTMENT OF HEALTH, EDUCATION AND WELFARE PUBLIC HEALTH SERVICE HEALTH RESOURCES ADMINISTRATION NATIONAL CENTER FOR HEALTH STATISTICS</p>
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