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FROM VITAL & HEALTH STATISTICS OF THE NATIONAL CENTER FOR HEALTH STATISTICS
U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE ▪ Public Health Service | Number 41 ▪ October 30, 1978

Office Visits for Respiratory Conditions, National Ambulatory Medical Care Survey: United States, 1975-76[1]

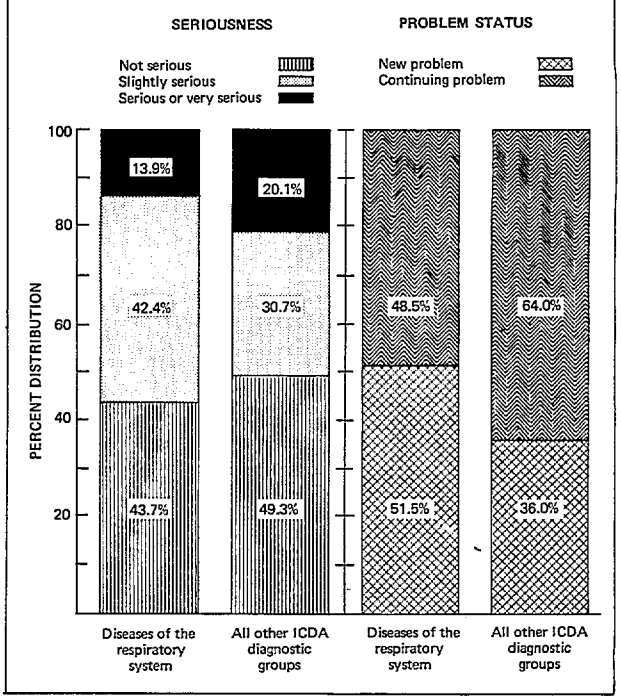
According to data collected in the National Ambulatory Medical Care Survey (NAMCS) by the National Center for Health Statistics (NCHS), an estimated 163.4 million visits to office-based physicians were attributed to diseases of the respiratory system during the 2-year period January 1975 through December 1976. Respiratory diseases comprised approximately 14 percent of all office visits for that period and were the leading morbidity related ICDA[2] classified group of diseases treated.

NAMCS is a sample suvrey conducted annually by NCHS's Division of Health Resources Utilization Statistics. The estimates in this report are based on information recorded by participating physicians on brief encounter forms (see Technical Notes) during sampled office visits. A brief description of the sample design and an explanation of the sampling errors associated with selected aggregate statistics may be found in the Technical Notes of this report.

Patients visiting with respiratory system complaints were likely to present new rather than continuing problems. This finding departs significantly from the general trend towards higher proportions of continuing problems in most morbidity related diagnostic groups. Figure 1 illustrates the difference in problem status between visits for respiratory diseases and the total of all other ICDA diagnostic groups.

Seriousness of the patient's problem was evaluated by the physician using the criterion of the extent of impairment that might result if no care were available. On a 4-point scale ranging from not serious to very serious, attending physicians usually judged respiratory conditions as not serious or slightly serious. A small proportion (14 percent) of these conditions was

Figure 1. PERCENT DISTRIBUTION OF OFFICE VISITS FOR DISEASES OF THE RESPIRATORY SYSTEM AND ALL OTHER MAJOR ICDA DIAGNOSTIC GROUPS, BY SERIOUSNESS AND PROBLEM STATUS: UNITED STATES, 1975-76



[1]This report was prepared by Beulah K. Cypress, Ph.D., Division of Health Resources Utilization Statistics.

[2]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.

considered serious or very serious, which was less than the proportion (20 percent) of serious or very serious problems in the total of all other diagnostic groups (figure 1).

Acute upper respiratory infections (acute URI), which are usually short duration, self-limiting conditions, accounted for almost half of the visits in the respiratory diseases group (table 1). This may be one explanation for the relatively small proportion of office visits for serious problems. The high proportion of acute URI would also account for the relatively large numbers of new problems that were presented.

Table 1. Number and percent distribution of office visits for acute and chronic diseases of the respiratory system: United States, 1975-76

Diagnosis and ICDA code[1]	Number of visits in thousands	Percent distribution
All visits.....460-519	163,401	100.0
Acute upper respiratory infections.....460-466	78,585	48.1
Acute nasopharyngitis and acute upper respiratory infections of multiple or unspecified sites.....460,465	37,693	23.1
Acute sinusitis.....461	2,598	1.6
Acute pharyngitis.....462	17,414	10.7
Acute tonsillitis.....463	12,573	7.7
Acute laryngitis and tracheitis.....464	2,982	1.8
Acute bronchitis and bronchiolitis.....466	5,326	3.3
Influenza.....470-474	10,312	6.3
Pneumonia.....480-486	5,194	3.2
Chronic diseases of the respiratory system.....490-493, 502-503,507	59,722	36.5
Bronchitis, unqualified, and chronic bronchitis.....490-491	15,765	9.6
Emphysema.....492	5,223	3.2
Asthma.....493	10,951	6.7
Chronic pharyngitis and nasopharyngitis.....502	2,486	1.5
Chronic sinusitis.....503	8,284	5.1
Hay fever.....507	17,012	10.4
Other acute and chronic diseases of the respiratory system.....500,501, 504-506,508,510-519	9,548	5.8

[1]Based on the *Eighth Revision International Classification of Diseases, Adapted for Use in the United States* (ICDA).

Influenza and pneumonia together accounted for approximately 10 percent of visits for respiratory diseases. Six chronic diseases of the respiratory system comprised an additional 37 percent (table 1). Emphysema, asthma, and pneumonia were chiefly responsible for the visits classified as serious or very serious. A future report currently in preparation will provide additional indepth analysis of visits for specific respiratory diseases, and will be published in Series 13 of *Vital and Health Statistics*.

Table 2 displays age and sex distributions of visits for selected diseases. Like most NAMCS visits, proportions of females visiting for most respiratory illnesses exceeded those of males. However, male visits clearly exceeded female visits when the illness was diagnosed as emphysema.

Patients under 25 years of age were responsible for most of the visits for acute URI and for pneumonia. But patients over 25 years of age predominated the visits when the other respiratory diseases shown in table 2 were diagnosed. However, patients under 15 years of age represented about one-third of the visits for bronchitis and for asthma and about 29 percent of the visits for hay fever. Patients 65 years of age or older were responsible for the smallest proportions of visits for all respiratory conditions except emphysema. Patients 45 years of age and over were responsible for almost all visits for emphysema.

Figure 2 highlights the high rate of office visits for acute URI by patients under 15 years of age. For every 1,000 members of that age group in the population, there were 343 visits to a physician for acute URI. This number declined by half or more for patients up to 64 years of age and by about two-thirds for patients aged 65 years or older. Figure 3 shows the average annual rate of office visits for influenza and for pneumonia. Figures 4 and 5 illustrate three chronic conditions—bronchitis, asthma, and hay fever.

When physician specialty data were examined, it was observed that general and family practitioners had the highest proportions of visits for acute URI, influenza, pneumonia, bronchitis, and emphysema (table 3). This observation is not a surprising result since general and family practice constitutes the highest proportion of office-based physicians in the

Table 2. Percent distribution of office visits for selected diseases of the respiratory system by age and sex of patient: United States, 1975-76

Diagnosis and ICDA code[1]	Percent of visits	Age					Sex	
		Under 15 years	15-24 years	25-44 years	45-64 years	65 years and over	Female	Male
	Percent distribution							
Acute upper respiratory infections..... 460-466	100.0	46.0	14.4	18.9	15.0	5.8	54.2	45.8
Influenza..... 470-474	100.0	18.1	14.3	31.7	25.9	10.0	47.0	53.0
Pneumonia..... 480-486	100.0	37.7	12.4	17.1	20.3	12.5	50.8	49.2
Bronchitis, unqualified, and chronic bronchitis..... 490-491	100.0	32.9	9.0	20.3	25.2	12.6	57.9	42.1
Emphysema..... 492	100.0	*1.1	*0.1	*4.8	44.9	49.0	29.6	70.4
Asthma..... 493	100.0	32.9	10.9	18.1	28.1	10.1	54.9	45.1
Chronic pharyngitis, naspoharyngitis, and sinusitis..... 502-503	100.0	13.8	14.4	34.6	25.4	11.8	58.7	41.3
Hay fever..... 507	100.0	29.2	16.6	30.9	17.7	5.6	56.3	43.7

[1]Based on the *Eighth Revision International Classification of Diseases, Adapted for Use in the United States* (ICDA).

United States.[3] Internists treated a higher proportion of patients visiting for emphysema than they did those for other respiratory diseases and were responsible for the second highest proportion of visits for that problem. Since about two-thirds of office visits to internists were by patients 45 years of age and over,[4]

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

[4]National Center for Health Statistics: Office Visits to Internists: National Ambulatory Medical Care Survey: United States, 1975, by Beulah 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.

Figure 2. AVERAGE ANNUAL RATE OF OFFICE VISITS FOR ACUTE UPPER RESPIRATORY INFECTIONS (460-466), BY AGE OF PATIENT: UNITED STATES, 1975-76

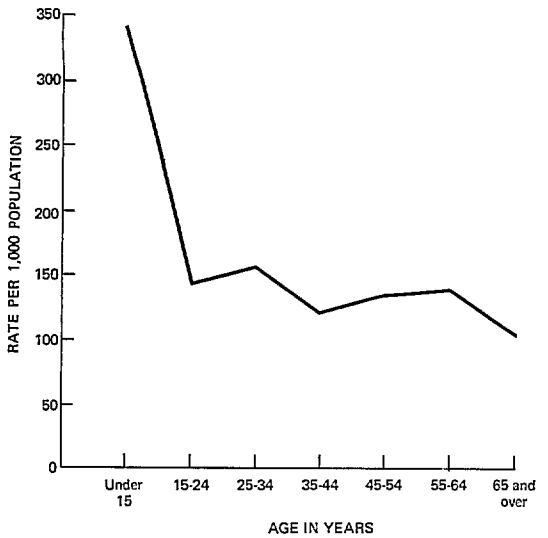


Figure 3. AVERAGE ANNUAL RATE OF OFFICE VISITS FOR INFLUENZA (470-474) AND PNEUMONIA (480-486), BY AGE OF PATIENT: UNITED STATES, 1975-76

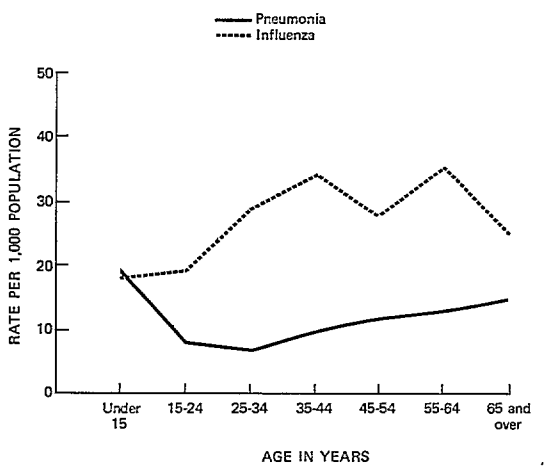


Figure 4. AVERAGE ANNUAL RATE OF OFFICE VISITS FOR BRONCHITIS, UNQUALIFIED, AND CHRONIC BRONCHITIS (490-491), BY AGE OF PATIENT: UNITED STATES, 1975-76

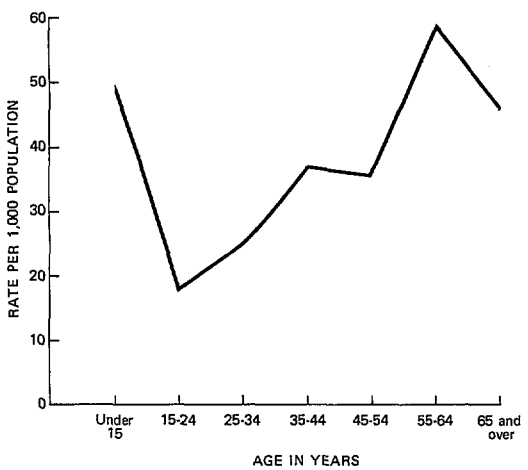
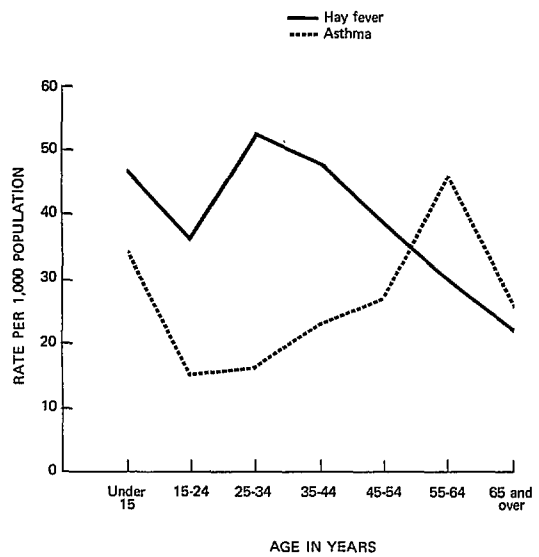


Figure 5. AVERAGE ANNUAL RATE OF OFFICE VISITS FOR HAY FEVER AND ASTHMA, BY AGE OF PATIENT: UNITED STATES, 1975-76



it is predictable that internists would see more respiratory problems related to the elderly, such as emphysema, than they would see acute URI, for example, where the visit rate was highest for the youngest age group.

Allergists had the highest proportions of asthma and hay fever visits.

Pediatricians treated about 22 percent of all patients visiting for asthma and 18 percent of those visiting for hay fever. This accounted for 58 percent of the visits made by patients under 15 years of age for asthma and 49 percent for

Table 3. Percent distribution of office visits for selected diseases of the respiratory system, by physician specialty: United States, 1975-76

Physician specialty	Diagnosis and ICDA code[1]						
	Acute upper respiratory infections (460-466)	Influenza (470-474)	Pneumonia (480-486)	Bronchitis, unqualified, and chronic bronchitis (490-491)	Emphysema (492)	Asthma (493)	Hay fever (507)
	Percent distribution						
All specialties	100.0	100.0	100.0	100.0	100.0	100.0	100.0
General and family practice	57.5	78.5	50.5	56.9	52.4	29.5	26.3
Internal medicine	7.8	7.3	14.9	12.5	30.3	10.6	9.9
Pediatrics	23.9	8.8	27.0	20.6	*0.6	21.9	17.8
General surgery	2.9	*1.9	*3.3	*2.9	*1.3	*0.7	*0.8
Obstetrics and gynecology	1.1	*1.0	*0.3	*0.5	-	*0.6	*0.3
Otolaryngology	3.1	*0.3	-	*0.4	-	*0.7	9.6
Allergy	*0.4	-	-	*0.8	*3.1	32.3	30.6
All other specialties (residual)	3.3	2.2	4.0	5.4	12.3	3.7	4.7

[1] Based on the *Eighth Revision International Classification of Diseases, Adapted for Use in the United States* (ICDA).

the same age group visiting for hay fever.

Higher than average proportions of visits for respiratory conditions included drug therapy (70 percent) and injections (27 percent). However, the blood pressure measurement rate of 24 percent was less than average.

The average duration of visits ranged from 11 minutes for acute URI to 17 minutes for emphysema. This time period hovered closely around the 15-minute average duration of all estimated visits.

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	*

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 NAMCS encompasses office visits within the conterminous United States made by ambulatory patients to physicians who are principally engaged in office practice. The National Opinion Research Center, under contract to NCHS, was the organization resposible for the survey's field operation.

SAMPLE DESIGN: NAMCS utilized a multistage 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. The 1975-76 sample included 5,604 physicians with a response rate of 80 percent for the 2 years. These physicians were requested to complete Patient Records[5] for a systematic random sample of office visits taking place within their

[5]See figure I.

Figure I. PATIENT RECORD

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.

BN#

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*)
1 ☐ VERY SERIOUS
2 ☐ SERIOUS
3 ☐ SLIGHTLY SERIOUS
4 ☐ NOT SERIOUS

7. HAVE YOU EVER SEEN THIS PATIENT BEFORE?
1 ☐ YES 2 ☐ NO
If YES, for the problem indicated in ITEM 5a?
1 ☐ YES 2 ☐ 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

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practices during a randomly assigned weekly reporting period. Participating physicians completed 114,000 Patient Records during the 2-year period. Characteristics of the physician's practice, such as primary specialty and type of practice, are obtained during an induction interview. A detailed description of the NAMCS design and procedures can be found in Series 13, Number 33 of *Vital and Health Statistics*.

SAMPLING ERRORS: Since the estimates for this report are based on a sample rather than the entire universe, they are subject to sampling variability. The relative standard error of an estimate is primarily a measure of sampling variability. The relative standard error of the 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 the estimated percentages of office visits are shown in table II.

ROUNDING: Aggregate estimates of office visits presented in the tables are rounded to the nearest thousand. The rates and percents, however, were calculated on the basis of original, unrounded figures. Due to rounding of percents, the sum of percentages may not equal 100.0 percent.

Table I. Approximate relative standard error of estimated numbers of office visits, NAMCS 1975-76

Estimate in thousands	Relative standard error in percentage points
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).

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 on the premises.

An *office* is a place that the physician identifies as a location for his ambulatory patients. Responsibility over time for patient care and 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 (M.D.) or doctor of osteopathy (D.O.) currently in practice who spends time in caring for ambulatory patients at an office location. Excluded from NAMCS are physicians who specialize in anesthesiology, pathology, 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.

Table II. Approximate standard errors of percentages for estimated numbers of office visits, NAMCS 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 (1.3 percent ÷ 20 percent).

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