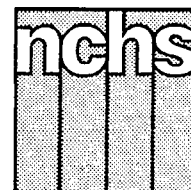


# Advance Data



From Vital and Health Statistics of the National Center for Health Statistics

## Office Visits by Adolescents

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### Introduction

This report examines 1985 statistics from the United States on the health care provided to adolescents by office-based physicians. The data are collected by means of the National Ambulatory Medical Care Survey (NAMCS), a year-long probability sample survey of private office-based physicians. This survey was conducted annually from 1978 through 1981 and again in 1985 by the Division of Health Care Statistics of the National Center for Health Statistics. NAMCS resumed as an annual survey in 1989. For purposes of this report, an adolescent visit is defined as a visit by a patient 11–20 years of age. Older adolescents are defined as patients 15–20 years of age and younger adolescents as patients 11–14 years of age.

In 1985 in the United States, 58 million visits (9 percent of all patient visits) to office-based physicians were made by adolescent patients. Visits by adolescents were reflective of the demographic profile of all patient visits to private, office-based physicians: primarily non-Hispanic, white, and female (table 1). Health

**Table 1. Number of office visits made by persons of all ages and by adolescents 11–20 years of age and percent distribution by patient's sex, race, and ethnicity, according to age: United States, 1985**

<i>Sex, race, and ethnicity</i>	<i>All ages</i>	<i>11–20 years</i>	<i>11–14 years</i>	<i>15–20 years</i>
Number of visits in thousands . . . . .	636,386	58,996	19,360	39,637
	Percent distribution			
All visits . . . . .	100.00	100.00	100.00	100.00
Sex				
Female . . . . .	60.89	57.39	50.07	60.96
Male . . . . .	39.11	42.61	49.93	39.04
Race				
White . . . . .	89.96	89.29	90.78	88.57
Black . . . . .	8.19	8.76	7.47	9.39
Other races . . . . .	1.84	1.95	1.74	2.05
Ethnicity				
Hispanic . . . . .	6.38	7.52	6.22	8.15
Non-Hispanic . . . . .	93.62	92.48	93.78	91.85

care visits by patients 11–14 years of age were like those of children, and health care visits by patients 15–20 years of age were like those of young adults.

### Physician specialty and visit status

Younger adolescents primarily sought medical care from pediatricians and general and/or

family practitioners (table 2). The older adolescent patient generally sought care not only from pediatricians and general and/or family practitioners but also from physicians specializing in obstetrics and gynecology and dermatology. Sixty-six percent of the visits by the older adolescent patient were to these four types of specialists. An almost equal percent of visits by the younger



**Table 2. Number of office visits made by persons of all ages and by adolescents 11–20 years of age and percent distribution by physician specialty, according to age: United States, 1985**

Specialty	All ages	11–20 years	11–14 years	15–20 years
Number of visits in thousands . . . . .	636,386	58,996	19,360	39,637
	Percent distribution			
All visits . . . . .	100.00	100.00	100.00	100.00
General and/or family practice . . . . .	30.48	35.40	30.79	37.65
Internal medicine . . . . .	11.59	5.14	4.01	5.70
Pediatrics . . . . .	11.42	17.60	33.33	9.91
Obstetrics and gynecology . . . . .	8.90	8.05	1.27	11.36
Ophthalmology . . . . .	6.30	4.62	4.91	4.48
Orthopedic surgery . . . . .	4.95	7.32	8.03	6.98
General surgery . . . . .	4.69	3.70	2.09	4.49
Dermatology . . . . .	3.79	6.48	3.69	7.84
Psychiatry . . . . .	2.83	2.00	1.85	2.07
Otorhinolaryngology . . . . .	2.53	2.56	2.88	2.40
Urological surgery . . . . .	1.84	0.59	0.48	0.64
Cardiovascular disease . . . . .	1.67	0.13	0.00	0.19
Neurology . . . . .	0.78	0.63	0.69	0.59
All other specialties . . . . .	8.24	5.78	5.98	5.68

adolescent patient (64 percent) were to physicians specializing in pediatrics and general and/or family practice.

There was a significant difference between the percent of visits by younger adolescents and the percent by older adolescents to physicians specializing in pediatrics and obstetrics and gynecology. As expected, younger adolescent patients were more likely to seek medical care from pediatricians, and older adolescent patients were more likely to seek medical care from obstetricians and gynecologists. Thirty-three percent of the visits by the younger adolescent patient were to physicians specializing in pediatrics, and only 1 percent were to physicians specializing in obstetrics and gynecology. Eleven percent of the visits by older adolescent patients were to obstetricians and gynecologists, and only 9 percent were to pediatricians.

The percents of visits to dermatologists by the younger adolescent patient and by the older adolescent patient were 3 percent and 7 percent, respectively. Thirty percent of the visits by younger adolescents were to general and/or family practitioners, compared with 37 percent by older adolescents.

Twenty-three percent of the visits by adolescents were classified as “first-time” visits, or as “new-patient” visits. Assuming all new-patient visits

presented the physician with a new medical problem, at least 50 percent of the visits by adolescents were for care of a new medical problem (table 3). New problem visits for patients of all ages accounted for 39 percent of the total number of visits.

### Patient's reason for visit

General medical or physical examination was the major reason adolescents visited a physician's office (table 4), accounting for 5.4 million visits. This ranked as the principal reason for visit for all adolescent patients, especially younger adolescent patients.

**Table 3. Number of office visits made by persons of all ages and by adolescents 11–20 years of age and percent distribution by patient's referral status and prior visit status, according to age: United States, 1985**

Referral status and prior visit status	All ages	11–20 years	11–14 years	15–20 years
Number of visits in thousands . . . . .	636,386	58,996	19,360	39,637
	Percent distribution			
All visits . . . . .	100.00	100.00	100.00	100.00
Referral status				
Referred by another physician . . . . .	5.62	5.56	5.73	5.48
Not referred by another physician . . . . .	94.38	94.44	94.27	94.52
Prior visit status				
New patient . . . . .	16.91	23.01	22.54	23.24
Old patient . . . . .	83.09	76.99	77.46	76.76
New problem				
Old problem . . . . .	22.73	29.42	34.45	26.96
Old problem . . . . .	60.36	47.58	43.01	49.81
New problems . . . . .	39.64	52.42	56.99	50.19
Old problems . . . . .	60.36	47.58	43.01	49.81

Routine prenatal examination was the reason given most often among older adolescent patients for visiting a physician, accounting for 3.3 million visits. There were a total of 3.4 million adolescent visits in which a routine prenatal examination was given as the principal reason for visit; and 98 percent of these were by older adolescents. Symptoms referable to throat ranked as the second most frequent reason given by older adolescents for visiting a physician—4.2 million adolescent visits, or 7 percent.

Another major reason for visit by the older adolescent was for acne or pimples. Of the 2.4 million visits made by adolescents for this reason, 2.1 million (or 86 percent) were made by older adolescents.

Visits by younger adolescents in which general medical or physical examination was the principal reason totaled 2.5 million. About half, 1.1 million, of these visits were specifically for physical examination: 836,000 visits were for physical examinations for extracurricular activities and 273,000 were for physical examinations required for school. Older adolescents made 2.8 million visits in which the reason for visit was specifically for a physical examination: 421,000 were for physical examinations for extracurricular activities, 378,000 were for physical examinations required for

**Table 4. Number and percent distribution of office visits made by adolescents 11–20 years of age by most frequent principal reason for visit, according to age: United States, 1985**

Age, principal reason for visit, and RVC code <sup>1</sup>	Number of visits in thousands	Percent distribution
<b>11–20 years</b>		
All visits . . . . .	58,996	100.00
General medical and physical examination . . .X100, <sup>2</sup> A100-A140	5,440	9.22
Symptoms referable to throat . . . . .S455	4,277	7.25
Prenatal examination, routine . . . . .X205	3,435	5.82
Acne or pimples . . . . .S830	2,455	4.16
Cough . . . . .S440	1,460	2.47
Earache or ear infection. . . . .S355	1,359	2.30
Skin rash . . . . .S860	1,298	2.20
Knee symptoms . . . . .S925	1,076	1.82
Allergy medication . . . . .T100	1,065	1.81
Headache, pain in head . . . . .S210	949	1.61
Warts, not otherwise specified. . . . .S850	945	1.60
Abdominal pain, cramps, spasms. . . . .S550	859	1.46
Allergy, not otherwise specified . . . . .S090	812	1.38
Post-operative visit . . . . .T205	772	1.31
Eye examination . . . . .X230	725	1.23
Head cold, upper respiratory infection (CORYZA) . . . . .S445	720	1.22
Vision dysfunctions . . . . .S305	671	1.14
Suture—insertion, removal . . . . .T555	606	1.03
Fever . . . . .S010	571	0.97
Back symptoms. . . . .S905	565	0.96
All other reasons . . . . .	28,934	49.04
<b>11–14 years</b>		
All visits . . . . .	19,360	100.00
General medical and physical examination . . .X100, <sup>2</sup> A100-A140	2,562	13.23
Symptoms referable to throat . . . . .S455	1,622	8.38
Cough . . . . .S440	758	3.91
Skin rash . . . . .S860	557	2.88
Earache or ear infection. . . . .S355	526	2.72
Allergy, not otherwise specified . . . . .S090	470	2.43
Knee symptoms . . . . .S925	436	2.25
Allergy medication . . . . .T100	360	1.86
Acne or pimples . . . . .S830	339	1.75
Vision dysfunctions . . . . .S305	308	1.59
Warts, not otherwise specified. . . . .S850	304	1.57
Headache, pain in head . . . . .S210	296	1.53
Nasal congestion . . . . .S400	288	1.49
Head cold, upper respiratory infection (CORYZA) . . . . .S445	266	1.37
Abdominal pain, cramps, spasms. . . . .S550	250	1.29
Suture—insertion, removal . . . . .T555	234	1.21
Foot and toe symptoms. . . . .S935	224	1.16
Post-operative visit . . . . .T205	214	1.10
Eye examination . . . . .X230	210	1.09
Back symptoms . . . . .S905	209	1.08
All other reasons . . . . .	8,930	46.12
<b>15–20 years</b>		
All visits . . . . .	39,637	100.00
Prenatal examination, routine . . . . .X205	3,391	8.55
General medical and physical examination . . .X100, <sup>2</sup> A100-A140	2,878	7.26
Symptoms referable to throat . . . . .S455	2,655	6.70
Acne or pimples . . . . .S830	2,117	5.34
Earache or ear infection. . . . .S355	833	2.10
Skin rash . . . . .S860	742	1.87
Allergy medication . . . . .T100	705	1.78
Cough . . . . .S440	702	1.77
Headache, pain in head . . . . .S210	653	1.65
Warts, not otherwise specified. . . . .S850	641	1.62
Knee symptoms . . . . .S925	640	1.61
Abdominal pain, cramps, spasms. . . . .S550	609	1.54
Post-operative visit . . . . .T205	559	1.41
Eye examination . . . . .X230	515	1.30
Head cold, upper respiratory infection (CORYZA) . . . . .S445	454	1.15
Fever . . . . .S010	375	0.95
Suture—insertion, removal . . . . .T555	372	0.94
Vision dysfunctions . . . . .S305	363	0.92
Back symptoms. . . . .S905	357	0.90
Allergy, not otherwise specified . . . . .S090	343	0.86
All other reasons . . . . .	19,734	49.79

<sup>1</sup>Based on Schnelder D, Appleton A, and McLemore T. A reason for visit classification for ambulatory care. National Center for Health Statistics. Vital and Health Stat 2(78). 1979.  
<sup>2</sup>Reason for visit classification (RVC) code X100 is general medical examination and codes A100-A140 are physical examination required for employment, for school, for extracurricular activities, for driver's license examination, for disability examination, and for premarital examination.

school, and 345,000 were for physical examinations required for employment.

Cough was another complaint that characterized visits by younger adolescents. Cough, as a principal reason for visit, accounted for 758,000 (3 percent) visits by younger adolescents and for 702,000 (1 percent) visits by older adolescents.

**Diagnostic services and physician's diagnosis**

No diagnostic services were ordered or provided by the physician in 42 percent of all adolescent visits. In addition, no diagnostic services were ordered or provided in 48 percent of the visits by younger adolescents and in 39 percent of the visits by older adolescents (table 5).

The diagnostic services most often ordered or provided were blood pressure check and urinalysis. The older adolescent patient, however, was more likely to receive a blood pressure check than the younger adolescent patient. Blood pressure checks were given in 34 percent of the visits by older adolescents and in 19 percent of the visits by younger adolescents. As expected, older adolescents were also more likely to receive some type of gynecological examination. In 12 percent of the visits by older adolescents, patients received diagnostic services of a pelvic examination; and in 6 percent, a breast examination. Only in 1 percent of the visits by younger adolescents did they receive diagnostic services of a breast examination or a pelvic examination.

Normal pregnancy was the principal diagnosis made by the physician during 3.4 million adolescent visits (5 percent) (table 6). Normal pregnancy ranked as the principal diagnosis made during visits by all adolescent patients, especially the older adolescent patient, for whom 3.3 million such diagnoses (or 8 percent) were made.

Aside from normal pregnancy, other diagnoses that were rendered more often during visits by older adolescents than during visits by

**Table 5. Number of office visits made by people of all ages and by adolescents 11–20 years of age and percent distribution by diagnostic services ordered or provided, according to age: United States, 1985**

Diagnostic services <sup>1</sup>	All ages	11–20 years	11–14 years	15–20 years
Number of visits in thousands . . . . .	636,386	58,996	19,360	39,637
	Percent distribution			
All visits . . . . .	100.00	100.00	100.00	100.00
None. . . . .	36.14	42.15	48.17	39.21
Breast exam . . . . .	6.78	5.16	1.63	6.89
Pelvic exam . . . . .	8.62	8.83	1.81	12.26
Rectal exam . . . . .	5.37	2.67	1.00	3.48
Visual acuity . . . . .	6.43	7.10	9.02	6.17
Urinalysis . . . . .	13.83	15.61	13.92	16.44
Hematology . . . . .	9.27	9.87	10.74	9.44
Blood chemistry . . . . .	6.90	3.99	3.00	4.47
Pap test . . . . .	4.49	4.00	0.63	5.64
Other lab test . . . . .	8.41	11.29	11.81	11.03
Blood pressure check . . . . .	38.64	29.43	19.97	34.06
EKG . . . . .	3.19	0.49	0.37	0.55
Chest x ray . . . . .	2.76	1.11	1.10	1.12
Other radiology . . . . .	5.94	6.87	8.41	6.11
Ultrasound . . . . .	0.94	0.74	0.40	0.90
Other . . . . .	10.65	8.23	5.95	9.34

<sup>1</sup>May not add to 100.00 because more than one diagnostic service was possible during the patient visit.

younger adolescents were diseases of the sebaceous glands; disorders of urethra and urinary tract; contraceptive management; special investigation and examination (principally gynecological); and inflammatory disease of cervix, vagina, and vulva.

General medical examination was the principal diagnosis rendered in 3.3 million adolescent visits (5 percent). General medical examination accounted for 1.4 million younger adolescent visits (7 percent) and ranked as the number one diagnosis during visits by younger adolescents. There were 1.9 million visits (6 percent) by older adolescents for general medical examination.

### Nonmedication therapy

Nonmedication therapy was ordered or provided in only 31 percent of the adolescent visits. The nonmedication therapy services given most often were ambulatory surgery and other counseling (table 7).

The nonmedication therapies family planning and diet counseling were each ordered or provided in 3 percent of the visits by adolescents. Ninety-five percent and 79 percent, respectively, of the adolescent visits

for family planning service or diet counseling services were by older adolescent patients.

### Disposition and duration of visit

The mean durations of visit for adolescent patients and all patients were 14 minutes and 16 minutes, respectively. Approximately 62 percent of the visits by adolescents had a duration of 6 to 15 minutes. A "return" disposition was given in 78 percent of the visits by adolescents. The disposition "Return at a specified time" was given to adolescent patients in 49 percent of the office visits (table 8).

### Medication therapy

Medication was ordered or provided in more than 50 percent of the 58 million visits made by adolescents (table 9). These 31 million drug visits produced 46 million drug mentions, representing a drug visit rate of 1.4 drugs per drug visit. The 46 million drug mentions associated with adolescent visits represented 6 percent of all drugs mentioned in all visits by patients of all ages.

The drugs ordered or provided to adolescent patients were generally characterized as antibiotics (table 10). However, drug mentions of tuberculin tine test (a tuberculin skin test) and diphtheria tetanus toxoids (an immunization) were more likely associated with younger adolescents. Drug mentions of Ortho-novum (a contraceptive) and Retin-A (an acne treatment) were more likely associated with older adolescents. The antibiotics mentioned most frequently during visits by adolescents were tetracycline, amoxicillin, ampicillin, amoxil, Pen-Vee K, E.E.S. (erythromycin ethylsuccinate), erythromycin, and Keflex.

### Summary

The profile of visits by older adolescents was quite different from that by younger adolescents. Older adolescents differed with respect to the male-to-female ratio (40:60), the specialists from whom they sought medical care (obstetricians), their reasons for visiting the physician (prenatal care, acne), the diagnoses rendered (pregnancy), the nonmedication services provided (family planning, diet counseling), and the medications prescribed (antibiotics, Ortho-novum, Retin-A). Comparatively, younger adolescents sought medical care primarily from pediatricians, the male-to-female ratio was 50:50, the principal reasons for visiting the physician were for a general medical or physical examination or a cough, and antibiotics and immunizations were frequently ordered or provided.

**Table 6. Number and percent distribution of office visits made by people of all ages and by adolescents 11–20 years of age by the 15 most frequent principal diagnoses, according to age: United States, 1985**

<i>Age, principal diagnosis, and ICD-9-CM code<sup>1</sup></i>	<i>Number of visits in thousands</i>	<i>Percent distribution</i>
<b>11–20 years</b>		
All visits . . . . .	58,996	100.00
Normal pregnancy . . . . . V22	3,424	5.80
General medical examination . . . . . V70	3,375	5.72
Diseases of sebaceous glands . . . . . 706	2,888	4.90
Acute pharyngitis . . . . . 462	1,814	3.07
Acute upper respiratory infections of multiple or unspecified sites . . . . . 465	1,806	3.06
Other diseases due to viruses and chlamydiae . . . . . 78	1,424	2.41
Allergic rhinitis . . . . . 477	1,356	2.30
Disorders of refraction and accommodation . . . . . 367	1,231	2.09
Suppurative and unspecified otitis media . . . . . 382	1,141	1.93
Certain adverse effects, not elsewhere classified . . . . . 995 <sup>2</sup>	1,038	1.76
Contact dermatitis and other eczema . . . . . 692	1,011	1.71
Acute tonsillitis . . . . . 463	893	1.51
Health supervision of infant or child . . . . . V20	853	1.45
Other disorders of urethra and urinary tract . . . . . 599	678	1.15
Disorder of external ear . . . . . 380	657	1.11
All other diagnoses . . . . .	35,408	60.02
<b>11–14 years</b>		
All visits . . . . .	19,360	100.00
General medical examination . . . . . V70	1,433	7.40
Acute pharyngitis . . . . . 462	709	3.66
Acute upper respiratory infections of multiple or unspecified sites . . . . . 465	637	3.29
Certain adverse effects, not elsewhere classified . . . . . 995 <sup>2</sup>	555	2.87
Allergic rhinitis . . . . . 477	553	2.86
Health supervision of infant or child . . . . . V20	527	2.72
Contact dermatitis and other eczema . . . . . 692	475	2.46
Suppurative and unspecified otitis media . . . . . 382	473	2.44
Other diseases due to viruses and chlamydiae . . . . . 78	459	2.37
Disorders of refraction and accommodation . . . . . 367	458	2.37
Diseases of sebaceous glands . . . . . 706	401	2.07
Curvature of spine . . . . . 737	311	1.61
Acute tonsillitis . . . . . 463	308	1.59
Streptococcal sore throat and scarlet fever . . . . . 34	300	1.55
Asthma . . . . . 493	297	1.53
All other diagnoses . . . . .	11,464	59.21
<b>15–20 years</b>		
All visits . . . . .	39,637	100.00
Normal pregnancy . . . . . V22	3,391	8.56
Diseases of sebaceous glands . . . . . 706	2,487	6.27
General medical examination . . . . . V70	1,942	4.90
Acute upper respiratory infections of multiple or unspecified sites . . . . . 465	1,169	2.95
Acute pharyngitis . . . . . 462	1,105	2.79
Other diseases due to viruses and chlamydiae . . . . . 78	965	2.43
Allergic rhinitis . . . . . 477	803	2.03
Disorders of refraction and accommodation . . . . . 367	772	1.95
Suppurative and unspecified otitis media . . . . . 382	668	1.68
Acute tonsillitis . . . . . 463	585	1.48
Other disorders of urethra and urinary tract . . . . . 599	547	1.38
Contact dermatitis and other eczema . . . . . 692	535	1.35
Contraceptive management . . . . . V25	510	1.29
Certain adverse effects, not elsewhere classified . . . . . 995 <sup>2</sup>	483	1.22
Special investigations and examinations . . . . . V72 <sup>3</sup>	464	1.17
All other diagnoses . . . . .	23,208	58.55

<sup>1</sup>Based on Public Health Service and Health Care Financing Administration. International Classification of Diseases, 9th Revision, clinical modification (ICD-9-CM). Washington: Public Health Service, 1980.

<sup>2</sup>Primarily allergy, unspecified (995.3).

<sup>3</sup>Primarily gynecological examination (V72.3).

**Table 7. Number of office visits made by persons of all ages and by adolescents 11–20 years of age and percent distribution by the nonmedication therapy ordered or provided, according to age: United States, 1985**

<i>Nonmedication therapy</i> <sup>1</sup>	<i>All ages</i>	<i>11–20 years</i>	<i>11–14 years</i>	<i>15–20 years</i>
Number of visits in thousands . . . . .	636,386	58,996	19,360	39,637
Percent distribution				
All visits . . . . .	100.00	100.00	100.00	100.00
None . . . . .	68.89	69.33	75.05	66.53
Physiotherapy . . . . .	4.16	4.10	3.53	4.39
Ambulatory surgery . . . . .	6.59	8.93	7.98	9.40
Radiation therapy . . . . .	0.10	0.09	0.13	0.07
Psychotherapy . . . . .	3.35	2.23	1.71	2.48
Family planning . . . . .	1.91	3.42	0.49	4.85
Diet counseling . . . . .	6.49	3.69	2.28	4.38
Other counseling . . . . .	9.29	8.82	8.39	9.03
Corrective lenses . . . . .	1.71	1.60	1.57	1.62
Other . . . . .	1.22	1.33	1.73	1.13

<sup>1</sup>May not add to 100.00 because more than one nonmedication therapy was possible during the patient visit.

**Table 8. Number of office visits made by persons of all ages and by adolescents 11–20 years of age by duration and disposition of the visit, according to age: United States, 1985**

<i>Duration and disposition of visit</i>	<i>All ages</i>	<i>11–20 years</i>	<i>11–14 years</i>	<i>15–20 years</i>
Number of visits in thousands . . . . .	636,386	58,996	19,360	39,637
Percent distribution				
All visits . . . . .	100.00	100.00	100.00	100.00
Duration				
Zero minutes <sup>1</sup> . . . . .	2.27	3.12	3.98	2.70
1–5 minutes . . . . .	10.25	13.64	13.67	13.62
6–10 minutes . . . . .	28.47	31.95	31.62	32.12
11–15 minutes . . . . .	30.01	29.64	30.56	29.19
16–30 minutes . . . . .	22.66	17.76	16.68	18.29
31 minutes or more . . . . .	6.34	3.88	3.50	4.07
Disposition <sup>2</sup>				
No followup . . . . .	9.76	16.45	21.30	14.07
Return at specified time . . . . .	61.46	49.65	42.92	52.93
Return if needed . . . . .	22.87	28.68	29.77	28.14
Telephone followup . . . . .	3.96	3.94	4.66	3.58
Refer to another physician . . . . .	3.15	2.08	2.36	1.94
Return to referring physician . . . . .	0.78	0.31	0.45	0.25
Admit to hospital . . . . .	1.62	0.98	0.80	1.07
Other . . . . .	0.54	0.30	0.19	0.36

<sup>1</sup>Represents office visits in which there was no face-to-face contact between the patient and the physician.

<sup>2</sup>May not add to 100.00 because more than one disposition was possible during the patient visit.

**Table 9. Number of office visits made by persons of all ages and by adolescents 11–20 years of age by number of medications ordered or provided, according to age: United States, 1985**

<i>Number of medications</i>	<i>All ages</i>	<i>11–20 years</i>	<i>11–14 years</i>	<i>15–20 years</i>
Number of visits in thousands . . . . .	636,386	58,996	19,360	39,637
Percent distribution				
All visits . . . . .	100.00	100.00	100.00	100.00
0 . . . . .	38.81	45.96	50.65	43.67
1 . . . . .	33.45	35.85	33.33	37.08
2 . . . . .	15.99	13.18	11.39	14.06
3 or more . . . . .	11.75	5.00	4.63	5.18

Table 10. Number, percent distribution, and therapeutic use of drug mentions, by age and the most frequent drug entry for adolescents 11–20 years of age: United States, 1985

<i>Age and entry name<sup>1</sup> of drug</i>	<i>Number of mentions in thousands</i>	<i>Percent distribution</i>	<i>Therapeutic use</i>
11–20 years			
All drug entries . . . . .	46,705	100.00	...
Tetracycline . . . . .	1,229	2.63	Antibiotic
Amoxicillin . . . . .	1,118	2.39	Antibiotic
Ampicillin . . . . .	877	1.88	Antibiotic
Ortho-novum . . . . .	859	1.84	Oral contraceptive
Amoxil. . . . .	839	1.80	Antibiotic
Pen-Vee K . . . . .	790	1.69	Antibiotic
E.E.S. (erythromycin ethylsuccinate) . . . . .	743	1.59	Antibiotic
Erythromycin . . . . .	742	1.59	Antibiotic
Keflex . . . . .	721	1.54	Antibiotic
Retin-A . . . . .	619	1.39	Acne treatment
All other mentions . . . . .	38,168	81.72	...
11–14 years			
All drug entries . . . . .	13,976	100.00	...
Amoxil. . . . .	405	2.90	Antibiotic
Amoxicillin . . . . .	381	2.73	Antibiotic
E.E.S. (erythromycin ethylsuccinate) . . . . .	271	1.94	Antibiotic
Tuberculin tine test . . . . .	255	1.83	Tuberculosis skin test
Keflex . . . . .	236	1.69	Antibiotic
Ampicillin . . . . .	226	1.62	Antibiotic
Cortisporin . . . . .	223	1.60	Anti-inflammatory and anti-bacterial agent
Diphtheria tetanus toxoids . . . . .	215	1.54	Immunization
House dust concentrate bulk treatment . . . . .	209	1.50	Allergenic extract, immunotherapy
Benadryl . . . . .	209	1.49	Antihistaminic
All other mentions . . . . .	11,554	82.67	...
15–20 years			
All drug entries . . . . .	32,729	100.00	...
Tetracycline . . . . .	1,022	3.12	Antibiotic
Ortho-novum . . . . .	789	2.41	Oral contraceptive
Amoxicillin . . . . .	737	2.25	Antibiotic
Ampicillin . . . . .	651	1.99	Antibiotic
Pen-Vee K . . . . .	610	1.87	Antibiotic
Erythromycin . . . . .	548	1.67	Antibiotic
Keflex . . . . .	485	1.48	Antibiotic
E.E.S. (erythromycin ethylsuccinate) . . . . .	472	1.44	Antibiotic
Retin-A . . . . .	454	1.39	Acne treatment
Amoxil. . . . .	434	1.33	Antibiotic
All other mentions . . . . .	26,961	82.38	...

<sup>1</sup>The trade or generic name used by the physician on the prescription or other medical records. The use of trade names is for identification only and does not imply endorsement by the Public Health Service or the U.S. Department of Health and Human Services. Because of its nonspecific nature, the entry "Allergy relief or shots" with 1,459,000 mentions is omitted (655,000 mentions for persons 11–14 years of age and 803,000 mentions for those 15–20 years of age).

### Technical notes

#### Source 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 1985 through February 1986. The target universe of NAMCS includes office visits made within the coterminous 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. For 1985, a sample of 5,032 non-Federal, office-based physicians was selected from

master files maintained by the American Medical Association and the American Osteopathic Association. The physician response rate for the 1985 NAMCS was 70.2 percent. Sample physicians were asked to complete patient records (see figure) for a systematic random sample of office visits occurring during a randomly assigned 1-week reporting period. Responding physicians completed 71,594 patient records. Characteristics of the physician's practice, such as primary

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 Public Health Service National Center for Health Statistics		A																																											
<b>1. DATE OF VISIT</b> _____ / _____ / _____ <small>Month Day Year</small>			<b>PATIENT RECORD</b> <b>NATIONAL AMBULATORY MEDICAL CARE SURVEY</b>			OMB No. 0937-0141 Expires 9/30/86 (PHS) 6105-A 456-232																																									
<b>2. DATE OF BIRTH</b> _____ / _____ / _____ <small>Month Day Year</small>	<b>3. SEX</b> 1 <input type="checkbox"/> FEMALE 2 <input type="checkbox"/> MALE	<b>4. COLOR OR RACE</b> 1 <input type="checkbox"/> WHITE 2 <input type="checkbox"/> BLACK 3 <input type="checkbox"/> ASIAN/PACIFIC ISLANDER 4 <input type="checkbox"/> AMERICAN INDIAN/ALASKAN NATIVE	<b>5. ETHNICITY</b> 1 <input type="checkbox"/> HISPANIC ORIGIN 2 <input type="checkbox"/> NOT HISPANIC	<b>6. EXPECTED SOURCE(S) OF PAYMENT</b> <i>[Check all that apply]</i> 1 <input type="checkbox"/> SELF-PAY    4 <input type="checkbox"/> BLUE CROSS/BLUE SHIELD    7 <input type="checkbox"/> NO CHARGE 2 <input type="checkbox"/> MEDICARE    5 <input type="checkbox"/> OTHER COMMERCIAL INSURANCE    8 <input type="checkbox"/> OTHER <i>[Specify]</i> 3 <input type="checkbox"/> MEDICAID    6 <input type="checkbox"/> HMO/PRE-PAID PLAN	<b>7. WAS PATIENT REFERRED FOR THIS VISIT BY ANOTHER PHYSICIAN?</b> 1 <input type="checkbox"/> YES    2 <input type="checkbox"/> NO																																										
<b>8. PATIENT'S COMPLAINT(S), SYMPTOM(S), OR OTHER REASON(S) FOR THIS VISIT</b> <i>[In patient's own words]</i> a. MOST IMPORTANT _____ b. OTHER _____		<b>9. GLUCOSE TESTS THIS VISIT</b> <i>[Check all ordered or provided]</i> 1 <input type="checkbox"/> NONE 2 <input type="checkbox"/> BLOOD 3 <input type="checkbox"/> URINE 4 <input type="checkbox"/> ORAL		<b>10. OTHER DIAGNOSTIC SERVICES THIS VISIT</b> <i>[Check all ordered or provided]</i> 1 <input type="checkbox"/> NONE    6 <input type="checkbox"/> URINALYSIS    11 <input type="checkbox"/> BLOOD PRESSURE CHECK 2 <input type="checkbox"/> BREAST EXAM    7 <input type="checkbox"/> HEMATOLOGY    12 <input type="checkbox"/> EKG 3 <input type="checkbox"/> PELVIC EXAM    8 <input type="checkbox"/> BLOOD CHEMISTRY    13 <input type="checkbox"/> CHEST X-RAY 4 <input type="checkbox"/> RECTAL EXAM    9 <input type="checkbox"/> PAP TEST    14 <input type="checkbox"/> OTHER RADIOLOGY 5 <input type="checkbox"/> VISUAL ACUITY    10 <input type="checkbox"/> OTHER LAB TEST    15 <input type="checkbox"/> ULTRASOUND 16 <input type="checkbox"/> OTHER SERVICE <i>[Specify]</i> _____																																											
<b>11. PHYSICIAN'S DIAGNOSES</b> a. PRINCIPAL DIAGNOSIS/PROBLEM ASSOCIATED WITH ITEM 8a. _____ b. OTHER SIGNIFICANT CURRENT DIAGNOSES _____		<b>12. HAVE YOU SEEN PATIENT BEFORE?</b> 1 <input type="checkbox"/> YES    2 <input type="checkbox"/> NO ↓ IF YES, FOR THE CONDITION IN ITEM 11a? 1 <input type="checkbox"/> YES    2 <input type="checkbox"/> NO		<b>13. NON-MEDICATION THERAPY</b> <i>[Check all services ordered or provided this visit]</i> 1 <input type="checkbox"/> NONE    5 <input type="checkbox"/> PSYCHOTHERAPY    9 <input type="checkbox"/> CORRECTIVE LENSES 2 <input type="checkbox"/> PHYSIOTHERAPY    6 <input type="checkbox"/> FAMILY PLANNING    10 <input type="checkbox"/> OTHER <i>[Specify]</i> 3 <input type="checkbox"/> AMBULATORY SURGERY    7 <input type="checkbox"/> DIET COUNSELING 4 <input type="checkbox"/> RADIATION THERAPY    8 <input type="checkbox"/> OTHER COUNSELING																																											
<b>14. MEDICATION THERAPY</b> <i>[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.]</i> IF NONE, CHECK HERE <input type="checkbox"/>				<b>15. DISPOSITION THIS VISIT</b> <i>[Check all that apply]</i> 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 6 <input type="checkbox"/> RETURNED TO REFERRING PHYSICIAN 7 <input type="checkbox"/> ADMIT TO HOSPITAL 8 <input type="checkbox"/> OTHER <i>[Specify]</i> _____																																											
<table style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 5%;"></td> <td colspan="2" style="text-align: center; font-size: x-small;">a.</td> <td colspan="2" style="text-align: center; font-size: x-small;">b.</td> <td></td> </tr> <tr> <td></td> <td style="text-align: center; font-size: x-small;">NEW MEDICATION?</td> <td style="text-align: center; font-size: x-small;">FOR DX IN ITEM 11a?</td> <td style="text-align: center; font-size: x-small;">YES</td> <td style="text-align: center; font-size: x-small;">NO</td> <td></td> </tr> <tr> <td style="font-size: x-small;">1</td> <td style="text-align: center; font-size: x-small;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> <td style="text-align: center; font-size: x-small;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> <td style="text-align: center; font-size: x-small;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> <td style="text-align: center; font-size: x-small;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> <td></td> </tr> <tr> <td style="font-size: x-small;">2</td> <td style="text-align: center; font-size: x-small;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> <td style="text-align: center; font-size: x-small;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> <td style="text-align: center; font-size: x-small;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> <td style="text-align: center; font-size: x-small;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> <td></td> </tr> <tr> <td style="font-size: x-small;">3</td> <td style="text-align: center; font-size: x-small;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> <td style="text-align: center; font-size: x-small;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> <td style="text-align: center; font-size: x-small;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> <td style="text-align: center; font-size: x-small;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> <td></td> </tr> <tr> <td style="font-size: x-small;">4</td> <td style="text-align: center; font-size: x-small;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> <td style="text-align: center; font-size: x-small;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> <td style="text-align: center; font-size: x-small;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> <td style="text-align: center; font-size: x-small;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> <td></td> </tr> <tr> <td style="font-size: x-small;">5</td> <td style="text-align: center; font-size: x-small;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> <td style="text-align: center; font-size: x-small;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> <td style="text-align: center; font-size: x-small;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> <td style="text-align: center; font-size: x-small;">1 <input type="checkbox"/> 2 <input type="checkbox"/></td> <td></td> </tr> </table>					a.		b.				NEW MEDICATION?	FOR DX IN ITEM 11a?	YES	NO		1	1 <input type="checkbox"/> 2 <input type="checkbox"/>	1 <input type="checkbox"/> 2 <input type="checkbox"/>	1 <input type="checkbox"/> 2 <input type="checkbox"/>	1 <input type="checkbox"/> 2 <input type="checkbox"/>		2	1 <input type="checkbox"/> 2 <input type="checkbox"/>	1 <input type="checkbox"/> 2 <input type="checkbox"/>	1 <input type="checkbox"/> 2 <input type="checkbox"/>	1 <input type="checkbox"/> 2 <input type="checkbox"/>		3	1 <input type="checkbox"/> 2 <input type="checkbox"/>	1 <input type="checkbox"/> 2 <input type="checkbox"/>	1 <input type="checkbox"/> 2 <input type="checkbox"/>	1 <input type="checkbox"/> 2 <input type="checkbox"/>		4	1 <input type="checkbox"/> 2 <input type="checkbox"/>	1 <input type="checkbox"/> 2 <input type="checkbox"/>	1 <input type="checkbox"/> 2 <input type="checkbox"/>	1 <input type="checkbox"/> 2 <input type="checkbox"/>		5	1 <input type="checkbox"/> 2 <input type="checkbox"/>	1 <input type="checkbox"/> 2 <input type="checkbox"/>	1 <input type="checkbox"/> 2 <input type="checkbox"/>	1 <input type="checkbox"/> 2 <input type="checkbox"/>		<b>16. DURATION OF THIS VISIT</b> <i>[Time actually spent with physician]</i> _____ <small>Minutes</small>	
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Figure. 1985 National Ambulatory Medical Care Survey Patient Record



specialty and type of practice, were obtained during an induction interview. The National Opinion Research Center, under contract to NCHS, was responsible for the survey's data collection and processing.

**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 estimates by imputing to nonresponding physicians the practice characteristics of similar responding physicians. For this purpose, physicians were judged similar if they had the same specialty designation and practiced in the same PSU.

**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. These measurements are applied to office visits in table I; in table II they are applied to drug mentions.

**Table I. Relative standard errors of estimated numbers of office visits based on all physician specialties: National Ambulatory Medical Care Survey, 1985**

<i>Estimated number of office visits in thousands</i>	<i>Relative standard error in percent</i>
200 . . . . .	37.8
500 . . . . .	24.1
1,000 . . . . .	17.2
2,000 . . . . .	12.5
5,000 . . . . .	8.5
10,000 . . . . .	6.6
20,000 . . . . .	5.4
50,000 . . . . .	4.5
100,000 . . . . .	4.2
600,000 . . . . .	3.9

Example of use of table: An aggregate estimate of 15,000,000 visits has a relative standard error of 6.0 percent, or a standard error of 900,000 visits (6.0 percent of 15,000,000 visits).

**Table II. Relative standard errors of estimated numbers of drug mentions based on all physician specialties: National Ambulatory Medical Care Survey, 1985**

<i>Estimated number of drug mentions in thousands</i>	<i>Relative standard error in percent</i>
300 . . . . .	39.8
500 . . . . .	30.9
1,000 . . . . .	22.1
2,000 . . . . .	15.9
5,000 . . . . .	10.6
10,000 . . . . .	8.1
20,000 . . . . .	6.5
50,000 . . . . .	5.3
100,000 . . . . .	4.9
600,000 . . . . .	4.4

Example of use of table: An aggregate estimate of 15,000,000 drug mentions has a relative standard error of 7.3 percent, or a standard error of 1,095,000 drug mentions (7.3 percent of 15,000,000 drug mentions).

**Test of significance and rounding**

In this report, the determination of statistical significance is based on a two-sided *t*-test with a critical value of 1.96 (0.05 level of confidence). Terms relating to difference, such as "greater than" or "less than," indicate that the difference is statistically significant. In the tables, estimates of office visits have been rounded to the nearest thousand. Consequently, estimates will not always add to totals. Rates and percent were calculated from original unrounded figures and do not necessarily agree with percents calculated from rounded data.

**Definition of terms**

An ambulatory patient is an individual seeking personal health services who is not currently admitted to any health care institution.

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; who are

employed full time by an institution; and who spend no time seeing ambulatory patients.

An office is a place that physicians identify as a location for their ambulatory practice; these customarily include consultation, examination, or treatment spaces the patient associates with the particular physician. Responsibility for patient care and professional services rendered in an office resides with the individual physician rather than with 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 personal health services.

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.

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

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**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
- 

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