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Drugs Most Frequently Used in Office-Based Practice: National Ambulatory Medical Care Survey, 1980

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This report lists and describes the 200 drugs most frequently utilized in 1980 by physicians engaged in office-based practice. (Inclusion 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.) Data are based on findings from the National Ambulatory Medical Care Survey.

The National Center for Health Statistics uses the National Ambulatory Medical Care Survey (NAMCS) to collect descriptive data about the medical care provided in doctors' offices. Each year NAMCS data collectors contact a representative sample of the Nation's doctors of medicine and osteopathy whose primary jobs are office-based, patient-care practice. The sampled physicians in turn complete records (figure 1) for a systematic random sample of their office visits over a weekly reporting period.

The year 1980 was the first in the 8-year history of NAMCS that respondents reported the number and names of the specific drugs they used (see figure 1, item 11). This resulted in an estimated 679,593,000 mentions of pharmaceutical agents ordered or provided for the purpose of prevention, diagnosis, or treatment. Mentions included new or continued medications and nonprescription as well as prescription drugs. The methodology used to collect and process drug information for the 1980 NAMCS is reported elsewhere.[1]

Since the estimates presented in this report are based on a sample rather than on the entire universe of office visits, the data are subject to sampling variability. The technical notes at the end of this report provide a brief explanation of the sampling errors, and guidelines for judging the precision of estimates.

Table 1 lists, in rank order, the 200 drugs that physicians most frequently ordered or provided at their office visits. The listing is arbitrarily restricted to the mentions of drugs that were specifically named by respondents. This led to the exclusion of four entry choices that did not identify a specific agent, indicating only the therapeutic effect desired. These four therapeutic effects were:

- *Allergy relief or shots (unspecified),* with 9,986,000 mentions.
- *Vitamin(s) (unspecified),* with 2,124,000 mentions.
- *Vaccination (unspecified),* with 1,233,000 mentions.
- *Skin preparations (unspecified),* with 948,000 mentions.

A superscript[f] following a listed drug indicates a *drug family*; i.e., a grouping of drugs whose members have the same core identifier and the same or a closely similar therapeutic effect. Example: the drug family ARISTOCORT[f] includes the following members: ARISTOCORT, ARISTOCORT A, ARISTOCORT FORTE, ARISTOCORT HP, ARISTOCORT INTRALESIONAL, and ARISTOCORT R.

The reader is cautioned that these rankings, due to sampling variability, may be somewhat artificial because some estimates may not enjoy a clear statistical difference from other near estimates.

The 200 drugs comprise only 8 percent of the total 2,632 drugs named by respondents. However, they accounted for about 448,707,000 mentions, or 66 percent of the total 679,593,000 drug mentions.

Tables 2, 3, 4, 5, and 6 characterize the 1980 drug mentions according to certain key dimensions, the knowledge of which is basic to any study of drug utilization. From these tables the reader may judge the degree that the ranking 200 drugs are representative of all drug mentions.

Entry status.—The data in table 2 characterize the drug mentions by their entry status; that is, they reveal whether the doctor recorded the mention by

[1]National Center for Health Statistics, H. Koch: The collection and processing of drug information, National Ambulatory Medical Care Survey, United States, 1980. *Vital and Health Statistics.* Series 2-No. 90. DHHS Pub. No. (PHS) 82-1364. Public Health Service. Washington. U.S. Government Printing Office. In press.

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, Education, and Welfare
Public Health Service
Office of Health Research, Statistics, and Technology
National Center for Health Statistics

A No. 001743

PATIENT RECORD
NATIONAL AMBULATORY MEDICAL CARE SURVEY

1. DATE OF VISIT ___/___/___ Month Day Year

2. DATE OF BIRTH ___/___/___ Month Day Year

3. SEX
1 ☐ FEMALE
2 ☐ MALE

4. COLOR OR RACE
1 ☐ WHITE
2 ☐ BLACK
3 ☐ ASIAN/PACIFIC ISLANDER
4 ☐ AMERICAN INDIAN/ ALASKAN NATIVE

5. ETHNICITY
1 ☐ HISPANIC ORIGIN
2 ☐ NOT HISPANIC

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

7. MAJOR REASON FOR THIS VISIT *[Check one]*
1 ☐ ACUTE PROBLEM
2 ☐ CHRONIC PROBLEM, ROUTINE
3 ☐ CHRONIC PROBLEM, FLAREUP
4 ☐ POST SURGERY/POST INJURY
5 ☐ NON-ILLNESS CARE (ROUTINE PRENATAL, GENERAL EXAM., WELL BABY, ETC.)

8. DIAGNOSTIC SERVICES THIS VISIT *[Check all ordered or provided]*
1 ☐ NONE
2 ☐ LIMITED HISTORY/EXAM.
3 ☐ GENERAL HISTORY/EXAM.
4 ☐ PAP TEST
5 ☐ CLINICAL LAB TEST
6 ☐ X-RAY
7 ☐ BLOOD PRESSURE CHECK
8 ☐ EKG
9 ☐ VISION TEST
10 ☐ ENDOSCOPY
11 ☐ MENTAL STATUS EXAM.
12 ☐ OTHER *(Specify)* _____

9. PHYSICIAN'S DIAGNOSES
a. PRINCIPAL DIAGNOSIS/PROBLEM ASSOCIATED WITH ITEM 6a.
b. OTHER SIGNIFICANT CURRENT DIAGNOSES

10. HAVE YOU SEEN PATIENT BEFORE?
1 ☐ YES 2 ☐ NO
↓
IF YES, FOR THE CONDITION IN ITEM 9a?
1 ☐ YES 2 ☐ NO

11. MEDICATION THERAPY THIS VISIT ☐ NONE
[Using brand or generic names, record all new and continued medications ordered, injected, administered, or otherwise provided at this vist. Include immunizing and desensitizing agents]

a. FOR PRINCIPAL DIAGNOSES IN ITEM 9a.	b. FOR ALL OTHER REASONS.
1.	1.
2.	2.
3.	3.
4.	4.

12. NON-MEDICATION THERAPY *[Check all services ordered or provided this visit]*
1 ☐ NONE
2 ☐ PHYSIOTHERAPY
3 ☐ OFFICE SURGERY
4 ☐ FAMILY PLANNING
5 ☐ PSYCHOTHERAPY/ THERAPEUTIC LISTENING
6 ☐ DIET COUNSELING
7 ☐ FAMILY/SOCIAL COUNSELING
8 ☐ MEDICAL COUNSELING
9 ☐ OTHER *(Specify)* _____

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

14. 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)* _____

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

PHS-6105-A (9/79) OMB No. 68-R1498

Figure 1. Patient Record from the National Ambulatory Medical Care Survey

Table 1. The 200 drugs most frequently used in office-based practice, by name of drug, generic class, and number of mentions: United States, 1980

Rank	Name of drug[1]	Generic class	Number of mentions in thousands
	All drugs		679,593
	200 drugs most frequently used		
1	LASIX	FUROSEMIDE	9,879
2	AMPICILLIN	AMPICILLIN	9,795
3	PENICILLIN[f]	PENICILLIN	9,736
4	INDERAL	PROPRANOLOL	9,625
5	TETRACYCLINE[f]	TETRACYCLINE	9,478
6	ASPIRIN[f]	ASPIRIN	8,800
7	DYAZIDE	COMBINATION DRUG	7,435
8	LANOXIN	DIGOXIN	7,105
9	POLIO VACCINE	POLIO VACCINE	6,535
10	VALIUM	DIAZEPAM	6,499
11	DIPHTHERIA TETANUS TOXOIDS PERTUSSIS	DIPHTHERIA TETANUS TOXOIDS PERTUSSIS	6,067
12	PREDNISONE	PREDNISONE	5,879
13	MOTRIN	IBUPROFEN	5,819
14	VITAMIN B-12[f]	VITAMIN B-12	5,813
15	HYDROCHLOROTHIAZIDE[f]	HYDROCHLOROTHIAZIDE	5,751
16	AMOXICILLIN	AMOXICILLIN	5,506
17	DIMETAPP	COMBINATION DRUG	5,377
18	ERYTHROMYCIN	ERYTHROMYCIN	5,363
19	INSULIN	INSULIN	5,248
20	ALDOMET	METHYLDOPA	5,237
21	DIGOXIN	DIGOXIN	4,801
22	TUBERCULIN TINE TEST[f]	TUBERCULIN	4,488
23	TAGAMET	CIMETIDINE	4,482
24	HYDRODIURIL	HYDROCHLOROTHIAZIDE	4,395
25	KEFLEX	CEPHALEXIN	4,268
26	E.E.S.	ERYTHROMYCIN	4,176
27	ACTIFED	COMBINATION DRUG	4,019
28	ISORDIL	ISOSORBIDE	3,905
29	TYLENOL	ACETAMINOPHEN	3,815
30	HYGROTON	CHLORTHALIDONE	3,772
31	TYLENOL W/CODEINE[f]	COMBINATION DRUG	3,661
32	PHENERGAN[f]	PROMETHAZINE	3,541
33	CLINORIL	SULINDAC	3,393
34	BENADRYL	DIPHENHYDRAMINE	3,366
35	AMOXIL	AMOXICILLIN	3,284
36	KENALOG	TRIAMCINOLONE	3,279
37	DIABINESE	CHLORPROPAMIDE	3,204
38	INDOCIN	INDOMETHACIN	3,181
39	NITROGLYCERIN	NITROGLYCERIN	3,132
40	THYROID	THYROID	3,071
41	DARVOCET-N	COMBINATION DRUG	3,043
42	CORTISPORIN	COMBINATION DRUG	3,009
43	BACTRIM[f]	COMBINATION DRUG	2,943
44	CLEOCIN[f]	CLINDAMYCIN	2,908
45	NAPROSYN	NAPROXEN	2,857
46	E-MYCIN	ERYTHROMYCIN	2,844
47	DIMETANE[f]	BROMPHENIRAMINE	2,824
48	PHENERGAN W/CODEINE[f]	COMBINATION DRUG	2,783
49	SEPTRA[f]	COMBINATION DRUG	2,781
50	PREMARIN[f]	ESTROGENS	2,683
51	LOPRESSOR	METOPROLOL	2,633
52	DONNATAL	COMBINATION DRUG	2,520
53	DECADRON[f]	DEXAMETHASONE	2,449
54	NEOSPORIN	COMBINATION DRUG	2,386
55	ELAVIL	AMITRIPTYLINE	2,363
56	ALDACTAZIDE	COMBINATION DRUG	2,257
57	INFLUENZA VIRUS VACCINE	INFLUENZA VIRUS VACCINE	2,225
58	TRANXENE	CLORAZEPATE	2,217
59	DALMANE	FLURAZEPAM	2,202
60	POTASSIUM	POTASSIUM REPLACEMENT SOLUTIONS	2,161
61	ALDORIL	COMBINATION DRUG	2,133
62	COUMADIN	WARFARIN	2,106
63	SYNTHROID	LEVOTHYROXINE	2,105

See footnote at end of table.

Table 1. The 200 drugs most frequently used in office-based practice, by name of drug, generic class, and number of mentions: United States, 1980—Con.

Rank	Name of drug[1]	Generic class	Number of mentions in thousands
64	DIURIL	CHLOROTHIAZIDE	2,101
65	ANTIVERT	MECLIZINE	2,093
66	PRENATAL VITAMINS[f]	MULTIVITAMINS PRENATAL	2,082
67	BUTAZOLIDIN[f]	PHENYLBUTAZONE	2,023
68	MONISTAT[f]	MICONAZOLE	1,976
69	CELESTONE[f]	BETAMETHASONE	1,970
70	SLOW-K	POTASSIUM REPLACEMENT SOLUTIONS	1,951
71	PEN-VEE-K	PENICILLIN	1,932
72	V-CILLIN[f]	PENICILLIN	1,928
73	XYLOCAINE[f]	COMBINATION DRUG	1,887
74	DILANTIN	PHENYTOIN	1,877
75	TIMOPTIC	TIMOLOL	1,875
76	VIBRAMYCIN	DOXYCYCLINE	1,844
77	PHENOBARBITAL	PHENOBARBITAL	1,790
78	SINEQUAN	DOXEPIN	1,766
79	MINOCIN	MINOCYCLINE	1,760
80	DEPO-MEDROL	METHYLPREDNISOLONE	1,742
81	ATARAX	HYDROXYZINE	1,737
82	HYDROCORTISONE	HYDROCORTISONE	1,732
83	MACRODANTIN	NITROFURANTOIN	1,724
84	ORTHO-NOVUM	COMBINATION DRUG	1,697
85	EMPIRIN W/CODEINE[f]	COMBINATION DRUG	1,687
86	LIBRAX	COMBINATION DRUG	1,670
87	DRIXORAL	COMBINATION DRUG	1,656
88	MYCOLOG	COMBINATION DRUG	1,649
89	NALFON	FENOPROFEN	1,642
90	BICILLIN[f]	PENICILLIN	1,629
91	ROBITUSSIN[f]	GUAIFENESIN	1,617
92	LOMOTIL	COMBINATION DRUG	1,610
93	FLUOROURACIL	FLUOROURACIL	1,609
94	PERSANTINE	DIPYRIDAMOLE	1,605
95	MYLANTA	COMBINATION DRUG	1,598
96	CECLOR	CEFACLOR	1,597
97	TETANUS TOXOID	TETANUS TOXOID	1,583
98	CHORIONIC GONADOTROPIN	CHORIONIC CONADOTROPIN	1,568
99	CHLOR-TRIMETON[f]	CHLORPHENIRAMINE	1,559
100	NOVAHISTINE[f]	COMBINATION DRUG	1,557
101	LAROTID	AMOXICILLIN	1,539
102	ORNADE	COMBINATION DRUG	1,511
103	ARISTOCORT[f]	TRIAMCINOLONE	1,510
104	ATIVAN	LORAZEPAM	1,503
105	MATERNA	MULTIVITAMINS PRENATAL	1,491
106	ACHROMYCIN[f]	TETRACYCLINE	1,482
107	SUDAFED[f]	PSEUDOEPHEDRINE	1,482
108	COMBID	COMBINATION DRUG	1,443
109	FIORINAL	COMBINATION DRUG	1,435
110	NITRO-BID	NITROGLYCERIN	1,433
111	MAALOX	COMBINATION DRUG	1,400
112	ASCRIPTIN	ASPIRIN	1,389
113	LIDEX	FLUOCINONIDE	1,388
114	ORINASE	TOLBUTAMIDE	1,352
115	APRESOLINE	HYDRALAZINE	1,351
116	LIBRIUM	CHLORDIAZEPOXIDE	1,343
117	ACTH	CORTICOTROPIN	1,315
118	GANTRISIN	SULFISOXAZOLE	1,315
119	ZYLOPRIM	ALLOPURINOL	1,314
120	SER-AP-ES[f]	COMBINATION DRUG	1,306
121	TRIAVIL	COMBINATION DRUG	1,305
122	ESIDRIX	HYDROCHLOROTHIAZIDE	1,299
123	ILOSONE	ERYTHROMYCIN	1,284
124	BRETHINE	TERBUTALINE	1,273
125	ENDURON	METHYCLOTHIAZIDE	1,253
126	LO/OVRAL	COMBINATION DRUG	1,244
127	MELLARIL	THIORIZAZINE	1,242
128	RONDEC[f]	COMBINATION DRUG	1,241
129	NORGESIC	COMBINATION DRUG	1,224

See footnote at end of table.

Table 1. The 200 drugs most frequently used in office-based practice, by name of drug, generic class, and number of mentions: United States, 1980—Con.

Rank	Name of drug[1]	Generic class	Number of mentions in thousands
130	VALISONE	BETAMETHASONE	1,222
131	TERRAMYCIN	OXYTETRACYCLINE	1,178
132	RETIN-A	TRETINOIN	1,178
133	PARAFON FORTE	COMBINATION DRUG	1,171
134	RESERPINE	RESERPINE	1,170
135	M-M-R	COMBINATION DRUG	1,170
136	DIPHTHERIA TETANUS TOXOIDS	DIPHTHERIA TETANUS TOXOIDS	1,167
137	NALDECON	COMBINATION DRUG	1,166
138	MAXITROL	COMBINATION DRUG	1,162
139	METAMUCIL	PSYLLIUM	1,160
140	ROBAXIN	METHOCARBAMOL	1,138
141	MINIPRESS	PRAZOSIN	1,128
142	BENTYL	DICYCLOMINE	1,116
143	IONAMIN	PHENTERMINE	1,108
144	QUINIDINE[f]	QUINIDINE	1,107
145	PERCODAN[f]	COMBINATION DRUG	1,105
146	DARVON[f]	PROPOXYPHENE	1,104
147	CORTISONE	CORTISONE	1,100
148	THEO-DUR	THEOPHYLLINE	1,075
149	FLAGYL	METRONIDAZOLE	1,072
150	DIPROSONE	BETAMETHASONE	1,057
151	METHOTREXATE	METHOTREXATE	1,044
152	ESTROGEN	ESTROGENS	1,043
153	CYTOXAN	CYCLOPHOSPHAMIDE	1,030
154	FASTIN	PHENTERMINE	1,012
155	TOLECTIN	TOLMETIN	1,007
156	LINCOCIN	LINCOMYCIN	1,003
157	TRIAMINIC[f]	COMBINATION DRUG	997
158	NEO-SYNEPHRINE[f]	PHENYLEPHRINE	987
159	PILOCARPINE	PILOCARPINE	979
160	ALUPENT	METAPROTERENOL	979
161	OVRAL	COMBINATION DRUG	956
162	FLURESS	COMBINATION DRUG	952
163	SOMA[f]	CARISOPRODOL	947
164	MEPROBAMATE	MEPROBAMATE	945
165	CHLOROPTIC[f]	CHLORAMPHENICOL	942
166	TIGAN	TRIMETHOBENZAMIDE	937
167	MYCOSTATIN	NYSTATIN	935
168	ZAROXOLYN	METOLAZONE	932
169	TUSS-ORNADE	COMBINATION DRUG	929
170	DONNAGEL[f]	COMBINATION DRUG	924
171	SALICYLIC ACID[f]	SALICYLIC ACID	922
172	DESQUAM-X[f]	COMBINATION DRUG	909
173	NITROGEN	NITROGEN	901
174	LIMBITROL	COMBINATION DRUG	900
175	CORDRAN[f]	FLURANDRENOLIDE	896
176	BENYLIN SYRUP	DIPHENHYDRAMINE	895
177	LOTRIMIN	CLOTRIMAZOLE	894
178	BETADINE[f]	IODINE TOPICAL PREPARATIONS	891
179	CATAPRES	CLONIDINE	890
180	AMINOPHYLLINE[f]	AMINOPHYLLINE	887
181	CORGARD	NADOLOL	885
182	QUIBRON[f]	COMBINATION DRUG	882
183	DEMEROL	MEPERIDINE	879
184	FLEXERIL	CYCLOBENZAPRINE	879
185	IRON PREPARATION	IRON PREPARATIONS	874
186	SORBITRATE	ISOSORBIDE	872
187	TOLINASE	TOLAZAMIDE	870
188	BENZAC[f]	COMBINATION DRUG	868
189	TOFRANIL	IMIPRAMINE	837
190	MEDROL	METHYLPREDNISOLONE	834
191	FERROUS SULFATE	IRON PREPARATIONS	834
192	ERYTHROCIN	ERYTHROMYCIN	832
193	PAVABID	PAPAVERINE	828
194	DRAMAMINE	DIMENHYDRINATE	825
195	SLO-PHYLLIN[f]	THEOPHYLLINE	822

See footnote at end of table.

Table 1. The 200 drugs most frequently used in office-based practice, by name of drug, generic class, and number of mentions: United States, 1980—Con.

Rank	Name of drug[1]	Generic class	Number of mentions in thousands
196	VASODILAN	ISOXUPRINE	818
197	TOPICORT	DESOXIMETASONE	805
198	COMPAZINE	PROCHLORPERAZINE	782
199	VELOSEF	CEPHRADINE	781
200	TALWIN[f]	PENTAZOCINE	779

[1]Superscript[f] denotes drug family.

Table 2. Number and percent distribution of all drug mentions, and number, percent distribution, and percent of all drug mentions of the 200 drugs most frequently named, by entry status: United States, 1980

Entry status	All drugs		200 drugs most frequently named		
	Number of mentions in thousands	Percent distribution	Number of mentions in thousands	Percent distribution	Percent of all drug mentions
Total	679,593	100.0	448,707	100.0	66.0
Generic name	164,464	24.2	128,501	28.6	78.1
Brand name	483,587	71.2	320,206	71.4	66.2
Unknown	31,542	4.6	...	...	...

Table 3. Number and percent distribution of all drug mentions, and number, percent distribution, and percent of all drug mentions of the 200 drugs most frequently named, by prescription status: United States, 1980

Prescription status	All drugs		200 drugs most frequently named		
	Number of mentions in thousands	Percent distribution	Number of mentions in thousands	Percent distribution	Percent of all drug mentions
Total	679,593	100.0	448,707	100.0	66.0
Prescription drug	561,228	82.6	403,807	90.0	72.0
Nonprescription drug	85,344	12.6	44,900	10.0	52.6
Unknown	33,021	4.9	...	...	...

Table 4. Number and percent distribution of all drug mentions, and number, percent distribution, and percent of all drug mentions of the 200 drugs most frequently named, by Federal control status: United States, 1980

Federal control status	All drugs		200 drugs most frequently named		
	Number of mentions in thousands	Percent distribution	Number of mentions in thousands	Percent distribution	Percent of all drug mentions
Total	679,593	100.0	448,707	100.0	66.0
Controlled by DEA[1]	58,550	8.6	40,076	8.9	68.4
Schedule II	5,763	0.8	1,984	0.4	34.4
Schedule III	12,037	1.8	6,750	1.5	56.1
Schedule IV	30,305	4.5	22,228	5.0	73.3
Schedule V	10,445	1.5	9,114	2.0	87.3
Uncontrolled	588,022	86.5	408,631	91.1	69.5
Unknown	33,021	4.9	...	...	...

[1]Drug Enforcement Administration.

Table 5. Number and percent distribution of all drug mentions, and number, percent distribution, and percent of all drug mentions of the 200 drug most frequently named, by composition status: United States, 1980

Composition status	All drugs		200 drugs most frequently named		
	Number of mentions in thousands	Percent distribution	Number of mentions in thousands	Percent distribution	Percent of all drug mentions
Total	679,593	100.0	448,707	100.0	66.0
Single-ingredient drug	468,752	69.0	348,294	77.6	74.3
Combination drug	165,798	24.4	96,840	21.6	58.4
Multivitamins	13,500	2.0	3,573	0.8	26.5
Unknown	31,542	4.6	...	...	...

Table 6. Number and percent distribution of all drug mentions, and number, percent distribution, and percent of all drug mentions of the 200 drug most frequently named, by therapeutic category: United States, 1980

Therapeutic category[1]	All drugs		200 drugs most frequently named		
	Number of mentions in thousands	Percent distribution	Number of mentions in thousands	Percent distribution	Percent of all drug mentions
All categories	679,593	100.0	448,707	100.0	66.0
Antihistamine drugs	43,939	6.5	26,269	5.9	59.8
Anti-infective agents (nontopical)	104,898	15.4	84,046	18.7	80.1
Antibiotics	90,081	13.3	75,526	16.8	83.8
Antineoplastic agents	5,371	0.8	3,683	0.8	68.6
Autonomic drugs	25,237	3.7	13,653	3.0	54.1
Blood formation and coagulation	8,312	1.2	2,940	0.7	35.4
Cardiovascular drugs	64,463	9.5	52,010	11.6	80.7
Cardiac drugs	26,331	3.9	24,397	5.4	92.7
Hypotensive agents	22,633	3.3	15,848	3.5	70.0
Vasodilating agents	14,646	2.2	11,765	2.6	80.3
Central nervous system drugs	110,706	16.3	80,271	17.9	72.5
Analgesics and antipyretics	57,800	8.5	47,408	10.6	82.0
Psychotherapeutic agents	16,395	2.4	9,195	2.0	56.1
Sedatives and hypnotics	25,036	3.7	19,671	4.4	78.6
Diagnostic agents	4,673	0.7	4,488	1.0	96.0
Electrolytic, caloric, and water balance	51,956	7.6	43,186	9.6	83.1
Diuretics	42,834	6.3	39,074	8.7	91.2
Expectorants and cough preparations	18,899	2.8	8,881	2.0	47.0
Eye, ear, nose, and throat preparations	26,076	3.8	10,798	2.4	41.4
Gastrointestinal drugs	24,140	3.6	15,029	3.3	62.3
Hormones and synthetic substances	55,843	8.2	41,781	9.3	74.8
Adrenals	18,312	2.7	15,425	3.4	84.2
Serums, toxoids, and vaccines	23,711	3.5	18,747	4.2	79.1
Skin and mucous membrane preparations	55,188	8.1	25,783	5.7	46.7
Spasmolytic agents	11,541	1.7	4,494	1.0	38.9
Vitamins	24,244	3.6	9,386	2.1	38.7
Other agents	10,378	1.5	3,262	0.7	31.4
Undetermined	10,017	1.5			

[1]Based on the pharmacologic-therapeutic classification of the American Society of Hospital Pharmacists.

brand name or by generic name. (Note: NAMCS respondents were instructed to use the same entry status on the NAMCS visit record (figure 1) that they used on the patient's medical record and/or on any prescription written.)

Extensive discussion has occurred during the past decade about the costs and merits of prescribing by brand name versus the usually less costly generic name. Since 1970, the generic drug business has grown faster than the total pharmaceutical market. To cite one study: "While the market expanded by 10 percent from 1977 to 1979, generics grew by 12.6 percent during that period. By 1979, 14 percent of all new prescriptions written by physicians were for generic drugs, up from 7 percent in 1970."[2]

It should be emphasized that the extent of generic utilization revealed by the NAMCS data in table 2 (24 percent of all drugs mentioned—29 percent of the leading 200) reflects the *total* utilization of generic drugs in office-based practice. Thus along with the generic prescriptions—new ones or refills—that the doctor intended to be filled by a dispensing pharmacist, the NAMCS generic fraction includes such other agents as: nonprescription generics (e.g., ASPIRIN or INSULIN); most serums, toxoids and vaccines (e.g., DIPHTHERIA TETANUS TOXOID PERTUSSIS); most diagnostic agents (e.g., TUBERCULIN); and a substantial number of other agents—chiefly antibiotic-injectibles—administered in the doctor's office.

Prescription status.—The data in table 3 characterize the drug mentions by their Federal legal classification. These data reveal whether the doctor recorded a prescription (Rx) drug or a nonprescription (over-the-counter or OTC) drug. The choice of a prescription drug by a prescribing physician indicates relatively more judgmental control by the physician than does the choice of a nonprescription drug, which represents a greater reliance on self-care by the patient. Also, OTC drugs are usually less expensive than their Rx counterparts. (However, except for INSULIN, they are not usually covered as an insured benefit in third-party programs.) Thus it is interesting to learn from table 3 that at least 13 percent of all drug mentions were nonprescription drugs.

[2]Mayer, C. E.: Drug industry war heats up over generics. Washington Post, Dec. 20, 1981. pp K1-2.

Federal control status.—A very important issue in health and social policy is the use of medications having significant potential for addiction or habituation. Such medications are under the regulatory control of the Drug Enforcement Administration (DEA), an agency of the U.S. Department of Justice. In table 4 the medications used in office-based practice are characterized by their DEA control level ("Schedule"). Each successive Schedule, from II through V, reflects a decreasing potential for abuse, as follows:

- Schedule II (MORPHINE, DEMEROL, AMPHETAMINES) High potential for abuse. Abuse may lead to severe psychological or physical dependence.
- Schedule III (FIORINAL, PHENDIMETRAZINE, etc.) Potential for abuse less than for drugs in Schedule II. Abuse may lead to moderate or low physical dependence or high psychological dependence.
- Schedule IV (VALIUM, PHENOBARBITAL, etc.) Potential for abuse less than for drugs in Schedule III. Abuse may lead to limited physical or psychological dependence.
- Schedule V (LOMOTIL, CHERACOL SYRUP, etc.) Potential for abuse and dependence less than for drugs in Schedule IV.

NAMCS data in table 4 reveal that a small but critical proportion (9 percent) of all drug mentions were controlled drugs, of which drugs in Schedule IV enjoyed the highest frequency of mention.

Composition status.—Table 5 reveals that about 26 percent of all drug mentions were combination drugs. An issue of long-standing debate in drug utilization concerns the use of drugs in fixed-ratio combinations as opposed to single-ingredient drugs. Combination drugs usually cost more and offer less flexibility in dosage adjustment; however, they offer more potential convenience to the patient. The NAMCS data base permits differentiating single-ingredient drugs from combination drugs and can identify the specific ingredients of the combinations if this information is required.

Therapeutic category.—Table 6 characterizes the 1980 drug mentions by the chief therapeutic effect that each was intended to produce. An obvious preeminence is enjoyed by two therapeutic categories, nontopical anti-infectives and central nervous system drugs, which together accounted for 32 percent of all drug mentions. The preeminence was even stronger (37 percent) among the leading 200.

Inquiries about the NAMCS drug data base or its 1980 findings may be addressed to:

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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 standards of reliability or precision

Technical notes

Source of data and sample design

The estimates presented in this report are based on data collected during 1980 by the National Center for Health Statistics by means of the Survey (NAMCS). The target universe of NAMCS comprises office visits made by ambulatory patients to non-Federal physicians who are principally engaged in office-based, patient care practice. Visits to physicians practicing in Alaska and Hawaii are excluded from the range of NAMCS, as are visits to physicians who specialize in anesthesiology, pathology, and radiology.

NAMCS uses a multistage probability sample design that involves a step-wise sampling of: primary sampling units (PSU's), physicians' practices within PSU's, and patient visits within physicians' practices. For 1980 a sample of 2,959 physicians was selected from master files maintained by the American Medical Association and the American Osteopathic Association. The physician response rate was 77.2 percent. Sampled physicians were asked to complete Patient Records (figure 1) for a systematic random sample of office visits made during a randomly assigned weekly reporting period. Telephone contacts were excluded. During 1980, responding physicians completed 46,081 Patient Records, on which they recorded 51,372 drug mentions. Characteristics of the physician's practice, such as primary specialty and type of practice, were obtained during an induction interview. The National Opinion Research Center, under contract to the National Center for Health Statistics, was responsible for the survey's field operations.

For a more detailed discussion of the limitations, qualifications, and definitions of the data collected by NAMCS, see Vital and Health Statistics, Series 13, Number 44.

Sampling errors and rounding of numbers

The standard error is a measure of the sampling variability that occurs by chance because only a sample, rather than an entire universe, is surveyed. The relative standard error of the estimate is obtained by dividing the standard error by the estimate itself and is expressed as a percent of the estimate. Tables I and II apply these measurements to drug mentions.

Estimates have been rounded to the nearest thousand. For this reason detailed figures within tables do not always add to totals. Rates and percents were calculated from original, unrounded figures and will not necessarily agree precisely with rates or percents calculated from rounded data.

Definitions

An *ambulatory patient* is an individual seeking personal health services who is neither bedridden nor currently admitted to any health care institution on the premises.

A *physician eligible for NAMCS* is a duly licensed doctor of medicine or osteopathy currently in office-based practice whose primary job is caring for ambulatory patients. Excluded from NAMCS are: physicians who are hospital based; physicians who specialize in anesthesiology, pathology, or 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.

An *office* is a place that the physician identifies as a location for his ambulatory practice. 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 respective purpose of seeking care or rendering health services.

A *drug mention* is the physician's entry of a pharmaceutical agent ordered or provided for prevention, diagnosis, or treatment. Generic as well as brand-name drugs are included, as are nonprescription as well as 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.

Table I. Approximate relative standard errors of estimated number of drug mentions based on all physician specialties: National Ambulatory Medical Care Survey, 1980

Estimated number of drug mentions in thousands	*Relative standard error*
1,000	27.3
2,000	19.7
5,000	13.2
10,000	10.1
20,000	8.2
50,000	6.8
100,000	6.2
300,000	5.8
650,000	5.8

Example of use of table: An aggregate estimate of 175,000,000 drug mentions has a relative standard error of 6.5 percent or a standard error of 4,875,000 mentions (6.5 percent of 75,000,000).

Table II. Approximate standard errors of percent of estimated numbers of drug mentions based on all physician specialties: NAMCS, 1980

Base of percent (number of drug mentions 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					
1,000	2.7	5.8	8.0	10.7	12.2	13.3
2,000	1.9	4.1	5.7	7.6	8.7	9.4
5,000	1.2	2.6	3.6	4.8	5.5	6.0
20,000	0.6	1.3	1.8	2.4	2.7	3.0
100,000	0.3	0.6	0.8	1.1	1.2	1.3
600,000	0.1	0.2	0.3	0.4	0.5	0.5

Example of use of table: An estimate of 30 percent based on an aggregate of 12,500,000 drug mentions was a standard error of 4.1 percent or a relative standard error of 13.7 percent (4.1 percent ÷ 30 percent).

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