

there is wide price variation in generically produced tetracycline with divergent price movements, it is impossible without quantity data to measure the effect of these price changes. The 1967 *Red Book* shows 5 distributors (by generic term only) increased prices for tetracycline, 2 had decreases, and 9 had no price changes. Eight distributors dropped out of the *Red Book* listing and nine new distributors entered.

In addition, it is doubtful whether any non-specialty generic distributor has sufficient dollar volume for individual products to warrant inclusion in the index under the criteria established.

It should be made clear that the prices used in the index which I have prepared, are list prices as reported by the producers or distributors. There are no adjustments for trade, quantity or cash discounts nor for free goods since such information is not available. This deficiency would affect the index only if there were trends which lead to effective increases, or decreases in discounts off list, over the years. Short run changes, without such changes in trends tend to counterbalance each other in the long run and probably have no lasting effect on the index.

The weights for this index were derived from confidential proprietary data compiled by Medical Data Services a Market Research Firm of Darien, Connecticut from its "Prescription Panel Service" and provided to me on a confidential basis. Medical Data Services describes its service as providing information, from a scientifically designed sample of new prescriptions filled at pharmacies, "on national prescription movement in order that a client may determine . . . trends by therapeutic class by company, and by product form and strength." The cumulative total of prescriptions for each product in the sample for an entire year, multiplied by the average prescription price for that product, was used to determine the relative importance of each of the prescription drugs and to determine the total value of all prescriptions for a therapeutic category.

This information is available within a month or so after the year-end, and provides reasonably good information on drug usage as reflected in prescriptions actually filled. A parallel but independent service, that of R. A. Gosselin & Company, of Dedham, Massachusetts, entitled "National Prescription Audit" was used together with the "Prescription Panel Service" in the preparation of the 1966 index to verify and reinforce the weights developed.

The two services were remarkably similar in the drug usage patterns they revealed. The use of either service alone would have provided sufficiently accurate information with which to design the weighting system, but to reduce sampling errors to a minimum, the data from the two services were combined.

Commodity selection

From the outset, sixteen categories of drugs were selected for the index plus an "all other" group to include the remaining drug products. Drug specialties in each category were selected on the basis of their importance in their therapeutic class. In each of the years since 1949 a product was included in the index if it was one of the five leading drugs in its group, so that all important specialties could be included. Items were dropped from the index only when the dollar volume fell below 0.1 percent of the group volume, to insure stability of the product list. Table II shows changes that were made in the number of drugs used in constructing the PMA index:

TABLE II.—DRUGS INCLUDED IN THE PMA ETHICAL PHARMACEUTICAL INDEX, 1949-66

Year	Number of items		Total number included	Year	Number of items		Total number included
	Added	Deleted			Added	Deleted	
1949-----	99	-----	99	1958-----	14	7	244
1950-----	18	1	116	1959-----	24	20	248
1951-----	13	5	124	1960-----	18	19	247
1952-----	46	7	163	1961-----	14	1	260
1953-----	22	4	181	1962-----	2	0	262
1954-----	21	7	195	1963-----	11	0	273
1955-----	20	4	211	1964-----	8	1	280
1956-----	14	4	221	1965-----	4	4	289
1957-----	21	5	237	1966 ¹ -----	189	106	363

¹ In 1966 the basis of item selection was changed somewhat to get better representation for the important products in groups like hormones and antibiotics which were previously excluded from the index because they were not among the 5 leading products in their respective categories. Items with \$1,000,000 in prescriptions in each of 2 consecutive years were added to the index. A product, already in the index that did not have at least \$1,000,000 in prescription volume in either year, was dropped except that, no therapeutic group is ever reduced to fewer than 5 products.