

Pharmaceuticals accounted for 0.77 percent of all commodities listed in the WPI in 1961 and for 0.76 percent of those to be included in the 1964 index. Anti-infectives, vitamins, and ataractics accounted for 54.50 percent of the ethical pharmaceuticals listed in 1961 and for 52.94 percent in 1964. Among proprietary pharmaceuticals, internal analgesics, cough and cold preparations, and antiseptics accounted for 60.16 and 59.74 percent of the products listed in these same years.

PMA-Firestone index

During the 1950's circumstances evolved a need for a better, more precise evaluation of prescription drug prices and price changes. Because these were not reported individually but as part of a larger group in the BLS Wholesale Price Index, no factual data were immediately available to support the industry's contentions that drug prices were affected by competition and economies in production so as to be reduced over time and that they were decreasing while prices of other nondrug products increased. Therefore, the PMA engaged the services of Dr. Firestone to construct a realistic index of prescription drug prices.³

So that the index of prices would be current and meaningful, it was based on a structured sample of prices for the year 1949. The index measures the changes in prices paid by pharmacies for specialty drugs used in dispensing prescriptions. It is computed by a method called a "chain index of weighted price relatives." This provides flexibility for changing weights as often as may be necessary. New drugs can be introduced into the index when they become sufficiently important; drugs declining in importance can be dropped without invalidating the comparability of the index over time, while continually reflecting the true current market conditions.

The index was set up by listing the five specialties that led in dollar volume in each of the eleven years from 1949 to 1959. A drug was and is maintained on the list as long as it appears on the market. All dosage forms of a product are represented by the price of the most widely used dosage form. Prices and sales volume data are derived from *Drug Topics Red Book* at its press time each year. A total of 308 drugs appeared at one time or another during the initial period. From 99 products, the base for the 1949 index, the sample was expanded, in order to reflect market conditions more accurately, to include 242 products in 1959. Table 4 indicates the relative importance of product classes as it changed over the initial period.

TABLE 4.—PERCENTAGE SHARES OF PRESCRIPTION SPECIALTIES BY PRODUCT CLASS IN THE PMA-FIRESTONE INDEX

Product class	1959	1949	Product class	1959	1949
	Percent	Percent		Percent	Percent
Antibiotics, oral.....	23	11	Diuretics.....	3	0
Hormones.....	11	10	Antihistaminics, oral.....	2	5
Tranquilizers.....	9	0	Hematinics.....	2	4
Analgesics, narcotics.....	7	4	Central-nervous-system stimulants.....	2	4
Antispasmodics.....	5	4	Antiarthritics, antirheumatics.....	1	1
Cough and cold preparations.....	5	6			
Vitamins.....	4	13	Total.....	100	100
Cardiovascular agents.....	4	4			
Sulfonamides.....	4	3	Total number of products in base		
Sedatives, hypnotics.....	3	6	sample.....	242	99
Dermatologicals.....	3	4			

Note: Data rearranged in 1959 order.

Indexes Show Change

The development and use of indexes has been necessary in all areas of endeavor in which changes can be measured significantly by quantitative means. The indexes described here have three key factors in common: (1) use of a value representing the price of a given item precisely defined (physically, chemically, or otherwise) at a specified point in time; (2) use of weighting factors which recognize the item's impact on the market in relation to all other products; (3) flexibility of the sample to expand or contract, which permits inclusion of new

³ Firestone, J. M.: A Price Index for Drugs, Drug & Cosmetic Industry, 87: 470 (October), 1960.