

compounded extemporaneously have been replaced by an almost complete product mix of prefabricated dosage units. There has also been continual change in the kinds and classes of prescription products used. The ratio of renewals to total orders dispensed (based upon the actual numbers) has increased from 39.5 to 53.6 percent. This represents an increase from 2,505 to 10,623 units, or 324 percent. Therefore, it is practically impossible to make comparisons of average charges for the purpose of demonstrating price change over time.

It should be apparent at this point that the average prescription charge can in no way be an indication or evaluation of drug prices at any level of distribution. However, as recently as March 1, 1967, the average price per prescription, taken from a leading pharmacy journal, was cited in a government report for the purpose of comparing prices of drug products. Furthermore, the report asserted that the average prescription price is capable of reflecting changes in drug prices as well as in quantities of drugs dispensed and the use of new drug products. It is unfortunate that this simple ratio should have been given such official prominence to support contentions which it cannot possibly support or conclusions which cannot be derived from it.

#### *Treatment costs*

In the first part of this article, the discussion of treatment costs implied that the average charge might be interpreted as an average treatment cost for drugs. It is not possible for an average of all prescription charges to represent an average treatment cost for any illness or condition requiring drugs. It may be necessary for the patient to have several renewals of a prescription before his health is regained. He may also require two or more prescription products, with or without renewals. He may need OTC drugs or other items to complete his treatment. Therefore, a patient's treatment cost may be only \$1.25 (for an inexpensive, once-used prescription), or it may be \$25 (for several renewals or more than one product), even though the average charge in the pharmacy which dispensed his medications was only the \$3.59 reported for 1966.

#### *Price indicators*

Indicators in the form of carefully constructed, statistically significant price indexes that validly measure price movements over time are available to the public, the business world, and pharmacy. The Consumer Price Index (CPI) and the Wholesale Price Index (WPI) are measures of monthly price changes, prepared and published by the Bureau of Labor Statistics (BLS) of the U.S. Department of Labor. The "PMA-Firestone Index of Prescription Specialties," a wholesale-level price index, is compiled by Dr. John M. Firestone, professor of economics at the City College of New York, and published by the Pharmaceutical Manufacturers Association. A brief description of these indicators will provide background for understanding the inability of the average prescription charge to indicate price trends or changes.

#### *Consumer Price Index*

The CPI is computed by comparing, at different periods, costs of a fixed set of goods representative of all purchases made by urban wage and clerical workers and ranging from food to medical costs to automobiles. It is popularly called a "market-basket index" or a "cost-of-living index." Technically, it is a price index with fixed or constant weights. The weights are devised to reflect the relative importance in total spending for the particular goods and services which are priced.<sup>1</sup>

The concept of price in the CPI is the amount charged for a particular specified product, identifiable by style, number, or other designation, on a single sale in an outlet at specific terms of sale. Specification pricing is used for a great majority of commodities. In this case, "specification" is a detailed description of the physical characteristics which determine an item's quality and influence its price. Both producers and retailers assist in developing and making changes in the specifications.

A complete tabulation includes average expenditures for 1,800 individual items in the consumer expenditure schedule. Drugs included are such products as liquid tonics, multiple vitamin concentrates, cold tablets or capsules, cough syrups, aspirin compounds, capsules of tetracycline, chlorthalidone hydro-

<sup>1</sup> U.S. Department of Labor, Bureau of Labor Statistics: *The Consumer Price Index: History and Techniques* (Bulletin No. 1517), Washington: U.S. Government Printing Office, 1966.