

A given average may result from operating statistics of a single pharmacy, of several similar pharmacies in a controlled sample, of a number of pharmacies selected purely by chance, or of a sample or complete population of pharmacies in a specific geographical area. It is possible that the average of any of two or more samples may be the same, but the possibility of such a result is reduced by many factors which contribute to determining an average charge. For this reason, it is appropriate to be mindful of these factors when we view trends in average prescription charges, particularly over a period of years as related to actual changes in costs of prescription products.

What is an average prescription charge? This might be better asked in the form of "What is an average?" Webster's dictionary requires several hundred words to describe the many concepts and possible applications of the "average." Statistically, an average represents a mean value, medial sum, or quantity, made out of an array of unequal sums or quantities—i.e., an arithmetical mean. A group of n numbers are added, and then the sum is divided by n to arrive at a figure which should express or imply some central tendency of performance or value. In fact, as generally used, "average" refers to a loose approximation to central tendency, but the centralness depends on the nature of the items being averaged. It is quite possible for a few high values in an otherwise low-valued distribution to pull the average well above the true central tendency of the distribution.

In our context, perhaps the most applicable concept of the term "average" is that of a ratio. Then it can be stated that an average is a mean value expressed as a ratio of value or performance between one set of items and another set of items. It may be expressed as a whole number, as a fraction, or as a dollar value. However, as a ratio, it is not necessarily the value of any actual item or the actual performance of any performing unit. An array of prices may produce an average which does not exist as any one of the prices in the array. An average time for a group of runners may not be the time at which any one runner ran the race.

Because it is of interest for analysis and planning to review the various trends of operating data and because it is difficult to analyze masses, average prescription charges have been widely published and have been of much interest to community pharmacists.

However, to have any value to a system in which a particular item is used, the item must offer some vestige of useful information or meaning, and it must be considered in the context of its derivation. Useful information or meaning, in the case of an average prescription charge, would include the reflecting, measuring, or predicting of economic conditions, professional circumstances, inter-workings of market actions, or merely simple trends for these facts or factors. A brief review of factors involved in the determination of prescription charges will indicate the questionable value and character of a single average charge as a meaningful expression of prescription department economics or performance for a single pharmacy. If the charge cannot be meaningful in this respect, it most certainly cannot be so for any other aspect of the drug industry, including manufacturing, distribution, and the overall practice of pharmacy.

Cost factors

Two major cost categories are involved in every charge: material costs and operating costs. Variability of material costs can exist in a pharmacy when the level of operation permits added investment in quantities to realize the advantages of quantity-discounted cost prices. Some products are dispensed occasionally and need be purchased and stocked only in small quantities to meet the existing demand. In this case, the cost is well defined for the pharmacist. However, the rate of dispensing other products is high enough to permit buying at regularly offered quantity discounts. When this is possible, the pharmacist may use the full wholesale cost for the smallest unit, the fully discounted cost for the largest unit, or, at his discretion, any value in between necessary to meet the needs of his customers, to enter and remain in local competition, or to allow for special considerations which are a part of his total community service.

The material costs problems is not avoided when an order requires compounding. No one questions the fact that compounding involves time, effort, and the use of technical skills. The question arises about adding the value of these factors to the ingredient values in order to determine a cost (total value) for the final product to be dispensed. In some pharmacies, these values are added to establish such a total cost value; in others, they are assumed to be a part of the markup or fee to be added to the ingredient costs. The average charge will be lower or