the drug distribution system. I can assure you that the Pharmaceutical Manufacturers Association and its member companies will cooperate fully in all reasonable measures taken to achieve that end.

(The supplemental information submitted by Mr. Gordon follows:)

EXAMINATION OF ANOMALIES IN PRESCRIPTION DRUG PRICES AND UTILIZATION*

Agnes W. Brewster, B.A., F.A.P.H.A.; Juanita P. Horton, B.S., R.Ph., M.S., F.A.A.A.P.E.

From time to time the Health Economics Branch of the Public Health Service is asked to examine seeming anomalies in medical care prices, expenditures, use rates and cost. One such recent study related to prescription drugs.

Totally and per capita, consumer expenditures for drugs have been rising, reflecting increased numbers of prescriptions per capita and a rise in the average cost of a prescription (table 1). Yet the Consumer Price Index for prescription drugs has shown an almost continual decline over the past 10 years (table 2).

How does one explain this seeming contradiction?

To better understand the elements of price movement and increased utilization as they might affect the consumer, we undertook a study using the 200 drugs most frequently prescribed in 1965 as a point of departure. This list—published annually—is prepared by R. A. Gosselin and Company. It is reported to reflect about two-thirds of all non-compounded prescriptions filled in the given year. The 200 most frequently prescribed products are part of a list that runs to thousands of different drugs. Since the 200 also represent about two-thirds of the prescription dollar market of \$2.9 billion for 1965, the list provides an adequate base for observing trends in prices.

This study pertains to the 188 trade name products in the listing. A word of explanation is in order. Generically prescribed drugs were excluded because there is no way of determining their prices or price changes since the various manufacturers of the generic products are not specified in the Gosselin listing. The top twelve generic products listed among the 200 most prescribed drugs for 1965 accounted for approximately 6.2 percent of all 550 million prescriptions making up the top 200 drugs. Their removal does not appreciably affect the results of

the study.

The *Drug Topics Red Books* for the years 1957–1967 were used for determining wholesale price. Any changes in wholesale price would very shortly be reflected in price to the consumer. One dosage form, strength, and quantity was selected for each of the 188 trade name products in the study. The price of the described item was found in the *Red Book* for the appropriate years. As you know, this is the standard source for pharmacists to determine the wholesale price of drugs. For example, the price of 100 one-grain Proloid tablets was traced from 1957 to 1967. The 1957 *Red Book* listed the price as \$0.75; the 1961 and subsequent *Red Books*, \$0.85. In our analysis, this represents one product which had a single price increase. Some products had more than one price change in the period under review.

Usually a product carries a higher price when first introduced; therefore, our first step was to sort the 188 drugs by the date they were introduced. Eighty-six percent had been on the market five or more years by 1967. Interestingly, 1959 was a year marked by new drugs—20 of our top 200 were introduced that year. Relatively few drugs—26 in number, or 14 percent—could be classified as really recent, introduced after 1962 (table 3a). Thus, the majority of the drugs leading in popularity are old standbys of the physicians' practice, available on the market for quite a span of years.

able on the market for quite a span of years.

Starting 10 years ago, in 1957, what happened to this 1965 list in the way of price movement? More than half had no price change. For 57 the price advanced, sometimes more than once, and for 27 the price was reduced, sometimes twice (table 4). However, the increases in the prescription price (less than \$1.00) were much smaller than the decreases, which were so large on a few

products that the average was over \$6.00.

The picture that emerges from this analysis is certainly not in conformity with a downward trend for the Consumer Price Index for drugs. True, antibiotics

^{*}Presented at the Drug Utilization Session, sponsored by the Medical Care Section of the American Public Health Association at the Ninety-Fifth Annual Meeting in Miami, Florida, October 25, 1967. Mrs. Brewster is Chief and Mrs. Horton is Pharmacist-Economist of the Health Economics Branch, Division of Medical Care Administration, Public Health Service.