(The prepared statement and supplemental information submitted by Dr. Kunin follows:)

STATEMENT OF DR. CALVIN M. KUNIN

Senator Nelson, members of the subcommittee, staff and guests: Before I begin my testimony, I would like to state clearly that the views which I shall present are my own and in no way represent those of the University of Virginia School of Medicine, where I am employed.

My qualifications include the following educational background and experience:

A.B., Columbia College, 1949.

M.D., Cornell Medical College, 1953.

Intern in Medicine, The New York Hospital, 1953-54.

Senior Assistant Surgeon, U.S.P.H.S. assigned to the Communicable Disease Center, 1954–56.

Assistant Resident in Medicine, Peter Bent Brigham Hospital, Boston,

Massachusetts, 1956–57.

Research Associate, Thorndike Memorial Laboratory, Harvard Service,

Boston City Hospital working under Dr. Maxwell Finland.

Assistant Professor of Preventive Medicine and Medicine, University of Virginia School of Medicine, 1959. Promoted to associate professor, 1964, and to become chairman and professor of Preventive Medicine, effective September 15, 1967.

I am certified by the American Board of Internal Medicine and the American

Board of Microbiology.

My fields of special interest include internal medicine, infectious disease, epidemiology and specifically, pharmacologic aspects of antimicrobial chemotherapy. I make no pretense of being an economist or a sociologist, but will try to present my views as a clinical investigator and teacher.

You have presented me with an outline of general questions to be discussed with some latitude to present opinions on other topics and personal experiences.

I will follow your outline:

(1) Views concerning drugs under generic names as against brand names

In general, I prefer characterization of drugs by their generic rather than brand names. This is certainly essential in teaching a systematic approach to drug usage to medical students and to people in allied health professions. The relation of drug structure to function is exceedingly important. Generic names usually render themselves much more readily to classification than do brand names. For example, among penicillins it is much easier to discuss the pharmacologic differences between generic names such as: benzyl penicillin, aminobenzyl penicillin, phenoxymethyl penicillin, dimethoxyphenyl penicillin, oxacillin and cloxacillin than the multiple brand names for each of these which would be, for example, Wycillin, Polycillin, Pen-V-K, Staphcillin, Prostaphlin and Tegopen and many, many more, depending upon the names of firms selling them. There are only five tetracycline derivatives on the market, but more than 20 different brand names for them.

This multiplicity of brand names is a source of confusion to students and practitioners and makes it exceedingly difficult to know exactly what they are using and the relative cost to the patient. It is not uncommon to see the same drug advertised by different manufacturers to be a superior product to

itself

About 10 years ago, the competition among purveyors of tetracycline was so intense that various excipients were added, each purporting to give higher blood levels. These "gilded" antibiotics were shown by a number of investigators to be essentially the same and although the noise in this area has quieted somewhat, much of the advertising energy has been directed to long acting preparations which really are not very much, if any more, effective. All of these promotional schemes did not increase the physician's therapeutic armamentarium, but led to much confusion. Small variations on such themes appear to be designed to keep the companies one step ahead of the clinical investigators who require time to catch up with them by careful comparative studies.

Thus, from the point of view of clarity of expression and understanding, generic names are preferred over brand names and I attempt to use only generic terminology in all my lectures and conferences and talks with practitioners. It is of great aid in the ideal hospital formulary in keeping drug inventories

minimal and less expensive to the patient.