In brief, then, regulation under the Federal Food, Drug, and Cosmetic Act is an important restraint on some promotional efforts sponsored by the drug industry. I would not want to suggest, however, that regulation is the best approach to take for all of the educational materials supported by the drug industry. The idea of the Federal Government and Madison Avenue locked in eternal battle over every piece of educational material sent to physicians is not particularly attractive. Neither of these parties should have primary control over educational materials. Such control properly belongs with the profession itself and its medical schools.

Mr. Chairman, I would like to summarize the problem in broad terms. The technical knowledge required for the optimal practice of medicine is continually advancing at a rapid pace. Because of this, there is need for excellent courses and teaching materials to assist the modern physician in maintaining his professional competence throughout his career. This need is increasingly recognized by specialty societies and State boards of licensure. Thus, physicians are coming under increasing pressure to demonstrate in a formal way their participation in various courses, hospital seminars, and other teaching programs.

To fill the need for teaching materials the communications industry has moved aggressively in recent years to produce an enormous variety of brochures, books, monographs, magazines, controlled circulation journals, closed-circuit TV video tapes, movies, audio cas-

settes, and self-instructional learning systems. Many of these are sent free to physicians, some under the sponsorship of professional organizations. These materials are highly professional from the standpoint of communications technology and obviously expensive to produce.

Outstanding medical authorities commonly are featured, and the scientific content of these communications is often excellent. While some of these communications relate to specific drugs and are readily recognizable as promotional material, many others deal with broad issues in medicine, including the diagnosis and general management of various diseases. Others may describe specific technical advances in a variety of specialty fields. The financial support for all of this activity comes predominantly from the pharmaceutical industry, which in turn obviously passes the cost along to the consumers of

The proliferation of industry-supported educational materials has increased to the point where they now constitute the bulk of educational information provided to the practicing physician in his

practice. Mr. Gordon. How much money is involved in this, actually?

Dr. CROUT. The round figure for the total promotional effort by the drug industry in the particular area of prescription drugs is on the order of \$1 billion.

Senator Nelson. You are talking about all promotional activities? Dr. CROUT. But the bulk of that must be for detail men but also a big piece of it must be for the kinds of promotional efforts we have been talking about this morning.

The smallest piece today is probably advertising in medical jour-

nals, which is the classical form of drug advertising.