for analysis of "adverse reactions," if this activity is to be continued. In as much as each of these manufacturers has computer facilities available, their medical and computer people might be able to add to the program development. The programs evolved could be implemented in their own organizations and perhaps replace some of the naive statistical analysis now carried out.

Surveillance of Patients Under Oral Contraceptive Therapy

Conversations with Advisory Committee members, medical personnel of the manufacturers and FDA personnel revealed considerable concern over the long-range effect of these medications. A woman with three children who begins oral contraception therapy at age 28, may use the drug for 20 years. Modern epidemiological and biostatistical methodology make possible the surveillance of such patients so that adverse chronic reactions may be detected at the earliest possible point in time. Such surveillance is rarely necessary because rarely have so many patients taken so potent a drug, for so long a period of time. Whether true or not, one gets the impression that certain adverse reactions may be time related. It seems imperative that the answers to this type of question be available. I believe that the costs involved in this type of surveillance are peculiar to the drug and its mode of use. Therefore, it seems to me that the cost of such surveillance is an integral part of the total cost of production and distribution of the medication. At the present time these medications cost the private patient about $25 per year. Because of the large number of patients under therapy, a fractional increase in the cost would supply ample funds to carry out the indicated epidemiologic surveillance.

As suggested by Dr. Louis M. Hellman, certain "captive groups" might be enlisted for study. Examples are: Wives of armed service personnel; clients of the Indian Service; patients of the Kaiser Medical Group; H.I.P. and the Family Union Medical Plan of the Hotel Industry of New York.

In order to have a representative sample of the population at risk, patients in Family Planning Clinics of various kinds and private patients should be included.

The FDA, its Advisory Committee, and the industry should set up a conference with capable epidemiologists and biostatisticians to investigate the feasibility of such a program and the planning thereof. An organization may need to be established, an existing agency may be able to take on the responsibility or the activity may be contracted to one or more of the Schools of Public Health for maintenance of the surveillance. Such an organization could serve as a model for future similar projects or for the maintenance of investigational studies in the drug industry.

The Food and Drug Administration

I have carried out no investigation of the Food and Drug Administration. My only contact with FDA or its personnel was at the committee meeting on April 7, 1966. Therefore any observations about FDA are hearsay or are related to what I have seen at the pharmaceutical manufacturers.

1. There appears to be little feedback to the manufacturers of the data which they are required to collect and transmit to FDA. Some pooled data might be very helpful and useful in maintaining a high level of scientific and epidemiologic interest. It might stimulate such awareness where it does not now exist.

2. One is struck by the lack of "guidelines" as to how investigational activities are to be carried out. The FD 1649 form is a cogent example. One manufacturer did not know of its existence. The form had been required for about 6 months and they had never filed a single one. The responsible FDA branch should have corrected this shortcoming. The FD 1639 form is completed by manufacturers' personnel in some cases, by treating physicians in other cases and in still other cases is not filed at all. The manufacturer, in each case, quote conversations with FDA personnel as authority for their routine. Who is responsible for this situation is unimportant. The need for instructions and guidelines is clear. Some of the memorandums filed are voluminous and burdensome to handle because the manufacturer is "afraid" to leave anything out. Others use their own judgment and inasmuch as they hear no complaints, it is assumed that their procedure is acceptable. One manufacturer files a list of adverse reactions and elaborates only on those cases which his representative believes merit elaboration. Another manufacturer files copies (triplicate) of every piece of paper including notes on telephone conversations with "detail men."

3. Intraagency communication seems to be faulty. The 110 deaths examined and tabulated in this report were taken solely from the duplica-

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