Oral contraceptives have come into wide use during a time of increasing sophistication in medical research and changing attitudes toward the use of humans as experimental subjects. It has been suggested that oral contraceptives might not be approved for general use if the decision for such use had to be made today. Factors tending toward conservatism concerning oral contraceptives are countered by the increasing recognition by scientists and society of the population problem and the right of couples to control the number of children. Oral contraceptives have become the most important contraceptive method in many parts of the country and in many family planning centers.

CURRENT RESEARCH PROGRAMS

Table 1 presents data on research underway during the most recent 12 month period for which data are available. The four categories of research are described below and titles of the individual projects are provided in Table 2. The programs of the Federal Government are presented in FY 69 since the budget for FY 70 remains in doubt. The principal agencies are the National Institutes of Health, the Food and Drug Administration, the Ford Foundation, and the Population Council. No other agencies support research in these categories to any similar extent and comparable information from the drug industry is not available.

At the present time the National Institute of Health has the largest single program, amounting to over a million dollars. The FDA supports projects at approximately $0.7 million. The programs of the Ford Foundation and the Population Council are at considerably lower levels and it is generally understood that neither of these private agencies intends to expand its programs in this area.

1. Clinic Studies

This is the largest single category of research now underway; total funds amount to approximately $1.1 million. Such research entails the intensive examinations of limited numbers of women taking oral contraceptives to elucidate the various changes which have been observed and to detect new ones. A wide variety of organ systems and functions have been shown to have been affected. These were described recently in the Second Report on Oral Contraceptives prepared for the FDA. The several changes include alterations in the reproductive tract, carbohydrate and fat metabolism, liver and protein metabolism, clotting factors, blood vessels, heart and blood pressure, lungs, central nervous system, and the fetus.

At the present time much of the research in these areas is supported on a project basis, the idea being initiated by the investigator, although a certain number of projects are initiated by the Department and supported through contracts.

2. Animal Research

Complete research on steroid hormones requires parallel studies in animals to explore certain problems which have been identified and to identify certain areas of possible risk. Animal research is now underway in a variety of species, including rodents, rabbits, dogs, and subhuman primates. Each species provides an important contribution to knowledge.

Animal work permits studies under closely controlled conditions without concern for possible risks to humans. Animal studies often require less time since the life spans of most laboratory animals are considerably shorter than the human. Furthermore, animal strains can be selected for sensitivity to certain reactions. If the drug does not cause a certain reaction in such sensitive subjects, it is more likely that the agent does not induce the effect in humans.

The current level of funding in this category is $0.4 million, much of which is used to support a single FDA study on the long-term effects of formulations now withdrawn from clinical investigation.

3. Case-Control Surveillance

Carefully designed case-control retrospective studies in humans have been used to demonstrate that there is an increased risk of thromboembolism in oral contraceptive use. This conclusion was derived from studies conducted in England and in the United States. More studies of this type are required to identify possible relationships with other illnesses, such as diabetes, cardiovascular disease, cancer, and congenital malformations. Recommendations for some such studies already approved by NIH but not yet funded are described below.