best of my knowledge, they are still basically not on the market for general use.

Again, in terms of are they still on the GRAS list, and so on, I think we have to defer this to somebody who is much more knowledgeable in this area than I am.

Senator McINTYRE. Thank you very much, Doctor.

Mr. GORDON. Dr. Legator, do you have an opinion as to the possible percentage of women taking oral contraceptives for, say, 2 years who may show genetic damage in their offspring in future pregnancies and in their children's pregnancies?

Dr. LEGATOR. No, no. I do not know of such data.

Senator NELSON. There is no such data, is there?

Dr. LEGATOR. To my knowledge, no.

Senator NELSON. As I understood your testimony, you were saying that we now have a methodology for determining mutagenic effects, and that methodology you feel ought to be applied to a wide spectrum of chemicals——

Dr. LEGATOR. Wide spectrum.

Senator NELSON (continuing). And compounds that are used.

Dr. LEGATOR. That we are exposed to generally.

Senator NELSON. And you were applying that to all of them and not just to this particular one?

Dr. LEGATOR. Exactly.

Senator NELSON. All right.

Do you have a question?

Mr. DUFFY. I just have one. Is there any reason why you would particularly wish to single out the oral contraceptive drugs as having particular need for this type of study?

Dr. LEGATOR. No more——

Mr. DUFFY. Is there any evidence to suggest that they are more potent in this area?

Dr. LEGATOR. No more than I would any other chemicals that we are widely exposed to, food additives and many other materials in our environment that one could really look at and say should probably have the same priority as the oral contraceptives.

Mr. DUFFY. Thank you.

Senator NELSON. Thank you very much, Doctor, for your very informative presentation. We appreciate your coming over to testify.

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

STATEMENT BY DR. MARVIN S. LEGATOR, CHIEF, CELL BIOLOGY BRANCH, DIVISION OF PHARMACOLOGY, BUREAU OF SCIENCE, FOOD AND DRUG ADMINISTRATION, U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Dear Mr. Chairman: The end of the 60's witnessed the discovery that a succession of chemicals including food additives, pesticides, and drugs were found to be chronically toxic to animals. The agricultural fungicide Captan was found to be mutagenic and produce congenital malformations (1, 2, 3): DDT was reported to be carcinogenic to mice (4); cyclohexylamine (a metabolite of cyclamate) produced chromosome abnormalities in rats (5), bladder tumors when administered orally to rats (6, 7) and malformations when injected into the chick embryo (8); and the antifungal antibiotic, griseofulvin produced hepatomas in mice (9). In each of the cited examples we are dealing with sub-

NOTE.—Numbered references at end of statement.