Third, excess mortality in tolbutamide-treated patients was not confined to a few clinics, as critics have claimed.

Fourth, although there was a "puzzling anomaly" concerning the distribution of sexes to the treatment groups within clinics, they could find an assignable cause for this distribution and have no reason to think that this study had been compromised by a breakdown in the randomization of patients to the treatment groups.

The committee particularly analyzed the criticism that there were important differences in baseline cardiovascular variables among the groups and concluded that there was no evidence that the baseline differences arising from the randomization contributed in any important way to the finding of adverse effect from tolbutamide.

Another conclusion was that the criticism that oral hypoglycemic drugs were given in fixed dosage was not relevant to the question of whether the drugs were toxic.

The committee also noted that the fixed dose given was about equal to average recommended dose. They further concluded that although it would have been easier to interpret findings were there more data on mortality, that is if the study had been carried out longer, they did not criticize the UGDP investigators for having made the decision when they did. The committee said:

> Nevertheless, the result of that decision is to leave us with some residual uncertainty about the meaning of the findings, a point that is well understood by the UGDP investigators themselves.

And last, the committee said that other studies said to contradict the findings of the UGDP study do not in fact do so.

The CHAIRMAN. Dr. Schmidt, yesterday and today—yesterday in the New York Times, today in the Washington Post—there is a story referring to a letter that was written early this year by Dr. James Sammons, executive vice president of the AMA to the Upjohn Co. in which, as I read the story, he is critical of the UGDP study and the evaluation by the Biometric Society of that study. Among other things his letter states: "A considerable body of expert scientific opinion contradicts these published findings." Then the letter was sent to the State medical societies and county medical societies, and 1,100 of detail men of Upjohn were furnished copies of the letter.

Obviously, it attacks the findings of the UGDP and as well the evaluation of the Biometric Society of those findings, which appeared in the Journal of the American Medical Association.

My question is, the UGDA study extended over 10 years; is that correct?

Dr. SCHMIDT. The study began in 1961, and the evaluation of it is still going on now.

The CHAIRMAN. It started in 1961. On page 4 of your prepared statement you quote from the Biometric Society report that other studies said to contradict the findings of the UGDP study do not in fact do so.

Are you aware of any carefully designed scientific studies that have been conducted that refute the findings of the UGDP?

Dr. SCHMIDT. No, sir, we are not.

The CHAIRMAN. So, as far as the Food and Drug Administration is concerned, you are not aware of any scientific studies that contradict the UGDP findings?