

Senator McINTYRE. On the bottom of page 6 of your statement, you point out that although estrogen has been in medical use for 35 years, there is no evidence that they have contributed to the incidence of cancer.

First of all, let me ask you whether there has been any increase in the incidence of cancer during the past 35 years?

Dr. GOLDZIEHER. There has been an incidence in breast cancer in this country. I can't give you the figures. This has been summarized by some of Dr. Segaloff's reviews. This incidence has also occurred in women who have never taken estrogens, particularly in young women. We are seeing an increase in breast cancer, so I understand.

Senator McINTYRE. You have specified breast cancer. Has there been any rise in the rate of cancer in other forms?

Dr. GOLDZIEHER. I couldn't tell you at this moment.

Senator McINTYRE. Anyway, it seems to me there are a number of difficulties with the table you cite to support your position. First of all, the table is dated 1963, shortly after the oral contraceptives came on the market, and although there is no way of identifying the years covered, they certainly would represent a period in which the estrogen was not being used in even the tiniest fraction of the  $8\frac{1}{2}$  to 9 million estimated to be taking it today.

Secondly, in three of the five studies cited, the expected number of cancers appeared to be based purely on the investigator's estimate, and we have no way of knowing how reliable that might be.

Finally, Doctor, there are no distinctions as to types of cancers or distribution by age, or sex, or any number of other factors which might very well be relevant. Would you care to comment on that?

Dr. GOLDZIEHER. Yes. I think you are practically quoting Dr. Hertz verbatim. I carefully said that these studies are not conclusive. I will agree that they have many objections, some of which you have stated. I am simply trying to point out that what available information there is, inadequate as it may be, whatever information may be gained from the fact that women have been treated with estrogens at some dose, which is certainly closer to the oral contraceptives than the dose which is used in the animals to produce breast cancer, that all this body of evidence which should have turned up something—just as an interest in thrombophlebitis did turn up something in a relatively few years—this body of evidence on menopausal and other estrogen-treated women so far has not turned up anything.

Senator McINTYRE. Doctor, does it take a great deal longer for cancer to show up as opposed to thromboembolic diseases?

Dr. GOLDZIEHER. We estimate a 10-year period or more.

Senator McINTYRE. For what? For cancer?

Dr. GOLDZIEHER. For cancer. Since we don't know the cause of idiopathic thromboembolic disease, I don't know how long the factor has been there, so I cannot give you any estimate at all of what the duration of predisposing factors is in thromboembolic disease.

Senator McINTYRE. Now, on page 7 of your statement, you say, "There are, if anything, less tumors occurring in women on hormones than in those taking no hormones at all."

On what evidence do you base your testimony?

Dr. GOLDZIEHER. I am referring to the table.