

As you note, high gains would be obtained during the original 3-year period, and in addition, of course, gains from patent royalties would remain.

There are important areas where drug companies probably do have a comparative advantage in terms of the type or character of research, but also it seems likely that this type of research effort would continue even with compulsory licensing. Therefore, I would certainly subscribe to the view that compulsory licensing, after a period of time at reasonable royalty rates, is a desirable policy change and should be enacted.

While it is true that the magnitude of research and development in the pharmaceutical industry would probably decline, it seems likely that projects of limited medical value and lowest industry comparative advantage would be eliminated first.

Senator NELSON. You are talking about pure research as contrasted, say, with applied research.

The industry does not do very much pure research now, does it?

Dr. COMANOR. There is, of course, considerable controversy over precisely how much pure research drug firms currently undertake.

Senator NELSON. It is product-directed; is it not?

Dr. COMANOR. It certainly is.

Senator NELSON. Is it not true, by most definitions, that there is not very much pure research done by industry as a whole in this country as compared to applied research?

Dr. COMANOR. I think the correct statistic, throughout the entire economy is something on the order of 10 percent, but I would have to check to be completely accurate. But however much basic research is done now, I would expect that less would be done with compulsory licensing.

At the same time, I am not unhappy with that result, because as I have noted, this is not an area where the industry appears to enjoy a comparative advantage relative to nonindustry research.

Therefore, I would suspect that with compulsory licensing, the magnitude of pure research would decline, but research with the highest industry comparative advantage would continue. I think it inappropriate to argue that the more research the better in this type of profit-oriented context, and it may well be that the present research effort carried out in the industry is sufficient or even exceeds that which is needed for its major research functions and responsibilities.

Senator NELSON. What percentage of sales does the research effort represent now in the industry?

Dr. COMANOR. Different sources provide different estimates. From the statistics I have seen, it is on the order of 6 to 8 percent.

Senator NELSON. Of sales?

Dr. COMANOR. Of sales.

Therefore, the lower research which would result from compulsory licensing seems to me to be a small price to pay for a more competitive determination of prices and profits in this industry.

Mr. GORDON. Dr. Comanor, the relevant market of the drug industry, as I understand it, is not the industry as a whole but each individual, therapeutic category. Would you say that is correct?