

research * * *. [Several] examples indicate that it is impossible to guarantee and difficult to predict what medical research will prove to be of economic importance but that some medical research has been extremely "profitable" in the sense that limited funds invested in research and development have yielded very substantial costs savings.

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What will the next decade's research bring? Nobody knows. Past experience lends some credence to the estimate that 1 year's increase in the life expectancy of the labor force, plus 1 day's decrease in working days lost due to illness, are plausible expectations. These gains would add 1.3 percent to our labor force. Assuming * * * that the GNP is proportional to the labor force, such a gain would today be "worth" \$8 billion annually to our economy, and would return \$1.6 billion annually to the Public Treasury.

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The cost of medical research is only part of the cost of a medical advance; we need doctors and hospitals and pharmaceutical products and many other people and facilities to use any new knowledge. However, in the case of poliomyelitis, the cost of research was the dominant cost, and research may well be the dominant cost for other new developments.³⁴

Analyses of the kind just quoted serve as powerful justifications for health-related research—if justification is indeed required at this stage in U.S. history. But they provide comparatively little guidance for judgments about the central questions of public policy. These questions concern (1) the point at which other uses of resources may be socially as important and as promising as health research, and (2) the most effective possible deployment of resources within the broad field of health research.

A conference specifically devoted to the economics of health research was held in 1964 under the auspices of the chairman of the President's Council of Economic Advisers and at the request of the President's Commission on Heart Disease, Cancer, and Stroke. The economists were asked to discuss criteria for allocating support to research, training, and patient care, as well as to research by disease categories. The discussion was organized around half a dozen major questions, each with many subquestions. These principal questions merit quotation as a way of identifying types of problems that must be considered in assessing the economic aspects of medical research:³⁵

(1) How much can this Nation afford to spend, or how much should it spend, on medical research?

(2) Are there any economic criteria for determining the proper roles of the several levels of government in financing medical research?

(3) Are there criteria to guide the allocation of funds between general and specific medical research?

(4) How should one handle certain complicated aspects of the economic calculation, such as the value of pain and grief, the implications of interrelated diseases, and failure to apply new knowledge?

(5) What can be done to bring together the Federal Government's interests in medical research and in educating and training personnel?

(6) Can economists offer any guidance on the respective merits of project versus program research financing?

The conferees did not provide definitive answers to all these questions; the discussions did, however, produce some reformulations, subsidiary queries, and cogent observations or insights that might serve as steppingstones for further analysis.

³⁴ Dr. Joseph B. Platt, loc. cit.

³⁵ The questions are from "Source Paper: Conference on the Economics of Medical Research," in "President's Commission on Heart Disease, Cancer, and Stroke, a National Program to Conquer Heart Disease, Cancer, and Stroke," vol. II, February 1965, pp. 631-644.