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## **Unrealistic Demands on Science and Medicine**

To serve the public most effectively, scientists, engineers, and physicians need a friendly, sympathetic environment and one in which their limitations are understood. Until recently such an environment prevailed, but the last few years have brought changes in the public's attitudes. Many adverse changes are involved, but one of the most important is the public's inaccurate estimate of what can be achieved. The public has come to expect miracles from engineering and medicine.

Today medical scientists and physicians are particularly subject to pressures produced by unrealistic demands from the public. Failure to produce miracles is taken as proof of a refusal to be interested in meeting the public's desires. One indignant correspondent wrote me in part as follows:

"It would certainly seem from the record to date, that basic research scientists are so preoccupied with the exquisiteness of their protocols and the refinements of their research approaches that they have missed entirely the objective and intent of we taxpayers who are funding their 'ivory tower isolationism.' . . . we as taxpayers expect something more in return than scientific dialogue between the scientists at seminars and in medical journals."

During recent discussion concerning the new cancer program, similar remarks were made. If the critics are unwilling to grant humane motives to medical scientists, the critics should at least recognize the power of self-interest. Anyone responsible for a dramatic advance in the fight against cancer will receive recognition and undying fame.

In some aspects of medicine, physicians can perform today what would have been impossible 40 years ago. Yet there are other aspects in which the practice of medicine has not changed much. For example, little can be done to halt the aging process. Neurological disorders are another area in which the medical profession cannot deliver as much as people wish.

Physicians find that many patients have unrealistic ideas of what doctors can do for them. Many people seem to think that they can carelessly expend physical resources in any way they wish and that the doctor can always cure them. Patients give no cooperation in the matter of exercise, diet, or abstinence from heavy smoking and yet expect the doctor to make up for their neglect. They want a drug to substitute for self-control and their own efforts. That kind of miracle is not yet available, nor is it likely to be.

Expectations for magical cures are partly responsible for the growing frequency of medical malpractice suits. If a cure is not forthcoming, the patient assumes the doctor must be at fault. Sometimes he is at fault, but often too much is expected of him. So common have malpractice suits become that fear of them is adversely affecting the practice of medicine and is raising the cost of medical care. Today many doctors find it necessary to practice medicine defensively—that is, instead of concentrating only on the well-being of the patient, they must also order a large number of unnecessary tests and examinations to answer questions they may be asked in court.

Scientists, engineers, and physicians cannot realistically hope that the favorable climate of 10 years ago will soon be restored. They can foster an improved climate, however, by persistently reminding the mass media and the public of the many limitations of science, technology, and medicine. We are neither witch doctors nor magicians.

—PHILIP H. ABELSON