

Regarding the end of medicine and the pursuit of health

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AMERICAN medicine is not well. Though it remains the most widely respected of professions, though it has never been more competent technically, it is in trouble, both from without and from within.

The alleged causes are many; I will mention a few. Medical care is very costly and not equitably available. The average doctor sees many more patients than he should, yet many fewer than would like to be seen. On the one hand, the physician's powers and prerogatives have grown, as a result of new technologies yielding new modes of diagnosis and treatment, and new ways to alter the workings of the body. His responsibilities have grown as well, partly due to rising patient and societal demands for medical help with behavioral and social problems. All kinds of problems now roll to the doctor's door, from sagging anatomies to suicides, from unwanted childlessness to unwanted pregnancy, from marital difficulties to learning difficulties, from genetic counseling to drug addiction, from laziness to crime. On the other hand, the physician's new powers have brought new dilemmas, concern over which has led to new attempts to regulate and control his practices, including statutes, codes, professional review bodies, ombudsmen, national commissions, and lawsuits brought by public interest law and consumer

groups. More and more physicians are being dragged before the bar, and medical malpractice insurance has become both alarmingly scarce and exorbitantly expensive.

Health care has become an important political issue. A right to health has been frequently claimed and embraced by politicians. Recent legislation has put the federal government most directly into the life-saving business, obliging it to pay for kidney machines for anyone in need. And the National Health Insurance on the horizon will surely bring the medical profession even more under governmental control, at the very least by defining what will count as health care through determining what will be paid for.

Last but not least, people both in and out of medicine have begun to wonder out loud whether and to what extent medicine is doing good. No longer simply charmed by the profession's diagnostic and therapeutic wizardry, some people are seriously asking whether the so-called health care delivery system really does—or can—deliver or foster improved health for the American people.

This last question points to a more fundamental cause of medicine's illness: Medicine, as well as the community which supports it, appears to be perplexed regarding its purpose. It is ironic, but not accidental, that medicine's great technical power should arrive in tandem with great confusion about the standards and goals for guiding its use. When its powers were fewer, its purpose was clearer. Indeed, since antiquity, medicine has been regarded as the very model of an art, of a rational activity whose powers were all bent towards a clear and identifiable end. Today, though fully armed and eager to serve, the doctor finds that his target is no longer clear to him or to us. Sometimes, it appears to be anything at which he can take aim; at other times, it appears nowhere to be found. In fact, the very existence of a target is implicitly questioned by those who have begun to change the name of the doctor from "physician" to "member of the helping professions."

At what should the medical art aim? What is the proper end—or the proper ends—of medicine? Continued confusion about this matter could bring about, more directly than any other cause, the demise of the profession, even if there were to remain people with M.D. degrees whom their clients called "Doctor." For without a clear view of its end, medicine is at risk of becoming merely a set of powerful means, and the doctor at risk of becoming merely a technician and engineer of the body, a scalpel for hire, selling his services upon demand. There is a connection between the two meanings of "end" suggested by the title of this article: Since an end-less profession is an ended profession, there will be an end *to* medicine unless there

remains an end *for* medicine. It is in part for this reason that I have chosen to inquire regarding the end, or purpose, of medicine, with the hope that we might more seriously regard—that is, look back at, pay attention to, and finally, esteem—the end or purpose of the medical art. Moreover, only by again attaining clarity about the goal of medicine can we hope intelligently to evaluate efforts to reach that goal and wisely to plan for their improvement. Otherwise, for all our good intentions, our health policies will be mere tinkering in the dark, at great risk of doing more harm than good.

I. The end of medicine

I trust it will shock no one if I say that I am rather inclined to the old-fashioned view that health—or if you prefer, the healthy human being—is the end of the physician's art. That health is *a* goal of medicine few would deny. The trouble is, so I am told, that health is not the only possible and reasonable goal of medicine, since there are other prizes for which medical technique can be put in harness. Yet I regard these other goals—even where I accept their goodness as goals—as false goals for medicine, and their pursuit as perversions of the art.

Let us examine some of the false goals that tempt today's physicians. First, there is what is usually called "happiness" in its sadly shrunken meaning, but which might best be called pleasure—that is, gratifying or satisfying patient desires, producing contentment. This temptation arises largely because of the open-ended character of some contemporary notions of mental health, which consider frustration or anxiety or any unsatisfied desires, no matter how questionable, to be marks of ill health, requiring a remedy.

Some examples of gratification may be helpful. A woman gets a surgeon to remove a normal breast because it interfered with her golf swing. An obstetrician is asked to perform amniocentesis, and then abortion, if the former procedure shows the fetus to be of the undesired gender. "Dr. Feelgood" devotes his entire practice to administering amphetamine injections to people seeking elevations of mood. To these real but admittedly extreme examples, one could add, among others, the now generally accepted practices of performing artificial insemination or arranging adoptions, performing vasectomies and abortions¹ for non-medical reasons (i.e., for family planning), dispensing antibiotics or other medicines simply because the

¹ Abortion—nearly all of it non-therapeutic in this sense—is now the third most common surgical procedure in the United States, after circumcision and tonsillectomy.

patient wants to take something, as well as some activities of psychiatrists and many of cosmetic surgeons (e.g., where the surgery does not aim to correct inborn or acquired abnormality or deformity). I would also add the practice, now being advocated more and more, of directly and painlessly killing a patient who wants to die.

All these practices, the worthy and the unworthy alike, aim *not* at the patient's health but rather at satisfying his, albeit in some cases reasonable, wishes. They are acts not of medicine, but of indulgence or gratification, in that they aim at pleasure or convenience or at the satisfaction of some other desire, and not at health. Now, some indulgence may be necessary in the *service* of healing, as a useful means to the proper end: I see nothing wrong in sweetening bad tasting medicine. But to serve the desires of patients as *consumers* should be the task of agents other than doctors, if and when it should be the task of anyone.

Even in its fuller sense, happiness is a false goal for medicine. By gerrymandering the definition of health to comprise "a state of complete physical, mental, and social well-being," the World Health Organization has in effect maintained that happiness is the doctor's business (even if he needs outside partners in this enterprise). For complete mental well-being—not to speak of the more elusive and ambiguous "social well-being," which will certainly mean different things to Pope Paul, President Ford, and Chairman Mao—goes well beyond the medical province of sanity, depending as it does on the successful and satisfying exercise of intelligence, awareness, imagination, taste, prudence, good sense, and fellow feeling, for whose cultivation medicine can do little. (That *happiness*, even in its full sense, is different from *health* can be seen in considering whether it would ever make sense to say, "Call no man *healthy* until he is dead.")

Behavior modification

A second false goal for medicine is social adjustment or obedience, or more ambitiously, civic or moral virtue. The prevention of crime, the taming of juvenile delinquents, the relief of poverty and racial discrimination, the reduction of laziness and philandering, the rearing of decent and moral men and women—all worthy goals in my opinion—are none of the doctor's business, except as the doctor is also a human being and a citizen. These are jobs for parents, policemen, legislators, clergymen, teachers, judges, and the commu-

nity as a whole—not to speak of the individual citizens themselves.² It is doubtful that the physician has the authority and competence, as physician, to serve these goals with his skills and techniques.

The difficulty is, of course, that only doctors are able and legally entitled to manipulate the body; hence the temptation to lend this licensed skill to any social cause. This temptation is bound to increase as we learn more about the biological contributions to behavior. In an increasing number of circumstances, the biological contribution will be seen as most accessible to intervention and most amenable to change. Hence, biological manipulation will often hold out the promise of dramatic and immediate results. Brain surgery and behavior-modifying drugs already have their advocates in the battles against criminal and other so-called anti-social behavior, and, for better or for worse, there is good reason for believing that these techniques may be effective at least in some cases some of the time. But even assuming that we should accept, for example, psychosurgery for some men committing frequent crimes of violence, or the dispensing of drugs in schools for some restless children, or genetic screening to detect genotypes that may in the future be shown to predispose to violent behavior, I doubt that it is the proper business of medicine to conduct these practices—even though, on balance, there may be overriding prudential reasons for not establishing a separate profession of bio-behavioral conditioners.

I reject, next, in passing, the claim that the alteration of human nature, or of some human natures, is a proper end for medicine, whether it be a proposal by a psychologist for pills to reduce human “aggressiveness,” especially in our political leaders, or the suggestions of some geneticists for eugenic uses of artificial insemination, or the more futuristic and radical visions of man-machine “hybrids,” laboratory-grown “optimum babies,” and pharmacologically induced “peace of mind.” Also to be resisted is that temptation first dangled by Descartes (and repeated in various forms by others many times since), who wrote in praise of the prospects for a new medicine based on his new physics: “For the mind depends so much on the temperament and disposition of the bodily organs that, if it is possible to find a means of rendering men wiser and cleverer than they have hitherto been, I believe that it is in medicine that it must be sought.” I doubt whether some of the improvements

² Improvements in public order and private virtue may, of course, lead secondarily to better health, e.g., with the reduction of crimes or drunkenness. (This theme will be discussed more fully below.) Conversely, medicine and its attendant institutions, including programs of health insurance, may have secondary consequences for society and morals, e.g., for the redistribution of income or the sense of personal responsibility for one’s state of health.

proposed would indeed be improvements, and also whether these goals could indeed be realized by using the biomedical techniques proposed. But in addition—and, for the present purpose, this is decisive—I would argue that these goals are not proper goals for the healing profession.

I skip over the much discussed question of whether the physician should be also a seeker after scientific truth, and whether and to what extent he may or should conduct research on patients not for their immediate benefit. Insofar as the knowledge sought is pertinent to the art of healing, its pursuit is a necessary means to the end of medicine and cannot be ruled out of bounds on that score, though serious and difficult moral questions remain whenever human beings are used as means, regardless of the end served.³ There may be good practical reasons to keep clearly delineated the activities of the physician as healer, and the physician as student of health and disease, all the more so where research done by doctors is not clearly and directly in the service of the health of their patients. But as the art depends upon knowledge, so the search for knowledge cannot be excluded from the art.

Death prevention

Let me, with some misgivings, suggest one more false goal of medicine: the prolongation of life, or the prevention of death. It is not so clear that this is a false goal, especially as it is so intimately connected with the medical art, and so often acclaimed as the first goal of medicine, or, at least, its most beneficial product. Yet to be *alive* and to be *healthy* are not the same, though the first is both a condition of the second, and, up to a point, a consequence. One might well ask whether we desire to live in order to live healthily and well, or whether we desire to be healthy and virtuous merely in order to stay alive. But no matter how desirable life may be—and clearly to be alive *is* a good, and a condition of all the other human goods—for the moment let us notice that the prolongation of life is ultimately an impossible, or rather an unattainable, goal for medicine. For we are all born with those twin inherited and

³ Perhaps these questions can be resolved, at least in principle, along the following lines. By knowingly and freely consenting to serve as an experimental subject, the patient is not serving as a means *merely*, but he becomes, as it were, a co-inquirer, and the obligation to secure his consent explicitly acknowledges that he is not to be regarded merely as a means. Nevertheless, a whole nest of theoretical and practical questions remains, ranging from the meaning and limits of "consent," "informed," and "free" to the design of procedures that would adequately protect the subject against risk and abuse without undermining the freedom to inquire.

inescapable “diseases,” aging and mortality. To be sure, we can still achieve further reductions in *premature* deaths; but it often seems doubtful from our words and deeds that we ever regard any particular death as other than premature, as a failure of today’s medicine, hopefully avoidable by tomorrow’s.

If medicine aims at death prevention, rather than at health, then the medical ideal, ever more closely to be approximated, must be bodily immortality. Strange as it may sound, this goal really *is* implied in the way we as a community evaluate medical progress and medical needs. We go after the diseases that are the leading causes of death, rather than the leading causes of ill health. We evaluate medical progress, and compare medicine in different nations, in terms of mortality statistics. We ignore the fact that for the most part we are merely changing one set of fatal illnesses or conditions for another, and not necessarily for milder or more tolerable ones. We rarely stop to consider of what and how we will die, and in what condition of body and mind we shall spend our last years, once we can cure cancer, heart disease, and stroke.

I am not suggesting that we cease investigating the causes of these diseases. On the contrary, medicine *should* be interested in preventing these diseases, or failing that, in restoring their victims to as healthy a condition as possible. But it is primarily because they are causes of *unhealth*, and only secondarily because they are killers, that we should be interested in preventing or combating them. That their prevention and treatment may enable the prospective or actual victims to live longer may be deemed, in many cases, an added good, though we should not expect too much on this score. The complete eradication of heart disease, cancer, and stroke—currently the major mortal diseases—would, according to some calculations, extend the average life expectancy at birth only by approximately six or seven years, and, at age 65, by no more than one-and-a-half to two years.⁴ Medicine’s contribution to longer life has nearly reached its natural limit.

By challenging prolongation of life as a true goal of medicine, I may be challenging less what is done by practicing clinicians and more how we think and speak about it. Consider a concrete case. An elderly woman, still active in community affairs and family life, has a serious heart attack and suffers congestive heart failure. The doctor orders, among other things, oxygen, morphine, and diuretics,

⁴ During the period between 1900 and 1970, the average life expectancy among white males in the United States, calculated from birth, increased by about 22 years (the biggest contribution being a decline in infant mortality), but the average life expectancy for those who reached age 65 increased only 1.5 years.

and connects her to a cardiac monitor, with pacemaker and defibrillator handy. What is the doctor's goal in treatment? To be sure, his actions, if successful, will help to keep her alive. But his immediate intention is to restore her circulatory functions as near to their healthy condition as possible; his more distant goal is to return her to her pre-morbid activities. Should the natural compensating and healing processes succeed, with his assistance, and should the cardiac wound heal and the circulation recover, the patient will keep herself alive.

We all are familiar with those sad cases in which a patient's life has been prolonged well beyond the time at which there is reasonable hope of returning him to a reasonably healthy state. Yet even in such cases—say a long-comatose patient or a patient with end-stage respiratory failure—a sensible physician will acknowledge that there is no longer any realizable therapeutic or medical goal, and will not take the mere preservation of life as his objective. Sometimes he may justify further life-prolonging activities in terms of a hope for a new remedy or some dramatic turn of events. But when reasonable hope of recovery is gone, he acts rather to comfort the patient as a friend and not especially or uniquely as a physician.

I do not want to be misunderstood. Mine is not an argument to permit or to condone medical callousness, or euthanasia practiced by physicians. Rather it is a suggestion that doctors keep their eye on their main business, restoring and correcting what can be corrected and restored, always acknowledging that death will and must come, that health is a mortal good, and that as embodied beings we are fragile beings that must snap sooner or later, medicine or no medicine. To keep the strings in tune, not to stretch them out of shape attempting to make them last forever, is the doctor's primary and proper goal.

To sum up: Health is different from pleasure, happiness, civil peace and order, virtue, wisdom, and truth. Health is possible only for mortal beings, and we must seek it knowing and accepting, as much as we are able to know and accept, the transience of health and of the beings who are healthy. To serve health and only health is a worthy profession, no less worthy because it does not serve all other goods as well.

II. What is "health"?

There was a time when the argument might have ended here, and we could have proceeded immediately to ask how the goal of health

may be attained, and what the character of public policy toward health should be. But since there is nowadays much confusion about the nature and meaning of "health," we may have made but little progress by our identification of health as the proper purpose of medicine.

If the previous section might be viewed as an argument against a creeping medical imperialism expanding under a view of health that is much too broad, there remains a need to confront the implications of a medical isolationism and agnosticism that reduces its province under a view of health that is much too narrow. Indeed, the tendency to expand the notion of health to include happiness and good citizenship is, ironically, a consequence of, or a reaction to, the opposite and more fundamental tendency—namely, to treat health as merely the absence of known disease entities, and more radically, to insist that health as such is, in reality, nothing more than a word.⁵

We are thus obliged, before turning to the question of what can we do to become healthier, to examine the question "What is health?"; for what was once self-evident, now requires an argument. I begin with some of the important difficulties that confound the search for the meaning of "health."

1. What is the domain of health? Is it body, or body and soul? Can only individuals be healthy, or can we speak univocally, and not analogically, about a healthy marriage, a healthy family, a healthy city, or a healthy society, meaning by these references something more than collections of healthy individuals? I think not. In its strict sense, "health" refers to individual organisms—plants and animals, no less than humans—and only analogically or metaphorically to larger groupings. I will set aside the question of whether only bodies or also souls are or can be "healthy," since it appears difficult enough to discover what health is even for the body. While there is disagreement about the existence of a standard of health for the soul—or, if you prefer, about whether there is "psychic health"—no one I think denies that if health exists at all, it exists as a condition at least of bodies. For the sake of simplicity, then, we shall

⁵ Claude Bernard opens his book *An Introduction to the Study of Experimental Medicine*, held by some to be a founding document of our scientific medicine, with the following sentence: "*To conserve health and to cure disease*: medicine is still pursuing a scientific solution of this problem, which has confronted it from the first." Yet he says in Chapter 1 of Part II, "[N]either physiologists nor physicians need imagine it their task to seek the cause of life or the essence of disease. That would be entirely wasting one's time in pursuing a phantom. The words, life, death, health, disease, have no objective reality." (Dover edition, H. C. Green translation, pp. 1, 67)

confine our investigation in the present context to somatic or bodily health.⁶

2. Health appears to be a matter of more and less, a matter of degree, and standards of health seem to be relative to persons, and also relative to time of life for each person. Almost everyone's state of health could be better, and most of us—even those of us free of overt disease—can remember being healthier than we are now. Yet as Aristotle long ago pointed out, "health admits of degrees without being indeterminate." In this respect, health is like pleasure, strength, or justice, and unlike "being pregnant" or "being dead."

3. Is health a positive quality or condition, or merely the absence of some negative quality or condition? Is one necessarily "healthy" if one is not ill or diseased? One might infer from modern medical practice that health is simply the absence of all known diseases. Harrison's textbook, *Principles of Internal Medicine*, is a compendium of diseases, and apart from the remedies for specific diseases it contains no discussion of regimens for gaining and keeping health. Indeed, the term "health" does not even occur in the index.

Clinical medicine's emphasis on disease and its cure is understandable. It is the sick, and not the well, who seek out medical advice. The doctor has long been concerned with restoration and remedy, not with promotion and maintenance, which were originally the responsibilities of gymnastic and dietetics. This orientation has been encouraged by the analytic and reductive approach of modern medical science and by the proliferation of known diseases and treatments—both leading to a highly specialized but highly fragmented medicine. Doctors are too busy fighting disease to be bothered much about health, and, up to a point, this makes sense.

Yet among pediatricians, with their well-baby clinics and their concern for normal growth and development, we can in fact see medicine clearly pointing to an overall good rather than away from particular evils. The same goal also informs the practices of gymnastics (physical fitness programs) and of dietetics. Together, these examples provide a provisional ground for the claim that health is a good in its own right, not merely a privation of one or all evils. Though we may be led to *think* about health and to discover its existence only through discovering and reflecting on *departures* from

⁶ In doing so, we are supported by a sensible tradition which held that health, like beauty or strength, was an excellence of the body, whereas moderation, wisdom, and courage were excellences of soul. While excluding these latter goods from the goal of medicine, I do not mean to deny to a more minimal state of psychic health—namely, sanity or "emotional equilibrium"—a possible place among the true ends of medicine.

health, health would seem to be the primary notion. Moreover, as I hope will become clear, disease, as the generic name for the cluster of symptoms and identifiable pathological conditions of the body, is not a notion symmetrical with, or opposite to, health. Health and *unhealth*—i.e., health and falling short of health—are true contraries, not health and disease.

Do doctors know best?

4. Who is the best judge of health, the doctor or the patient? On the surface, this looks like, and has increasingly been treated as, a question about power and the locus of authority. This trend is connected with the rise of consumerism and suspicion about all kinds of expertise, and has been fostered by loose talk about health as a commodity, as something money can guarantee, as something determined by felt needs of patients and delivered or served on demand by doctors. But the question has deeper roots and more important implications.

If medicine is an art which aims at health, and if an art implies knowledge of ends and means, then the physician is a knower. As unnatural as it may seem that someone else should know better than I whether or not I am healthy—after all, it is my body and my pain, and not the doctor's—still, the doctor as a knower *should* know what health and healthy functioning are, and how to restore and preserve them. In principle, at least, and to a great extent in practice, doctors *are* experts—i.e., men who know not only how we feel about, and what we wish for, our bodies, but how our bodies work and how they should work. This alone justifies their prescribing bad tasting medicine, or their mutilating a healthy abdominal wall to remove an inflamed appendix or even a non-symptomatic ovarian cyst; this alone justifies, but surely it *does* justify, doctors giving orders and patients obeying them.

Yet the case for health as an objective condition, in principle recognizable by an expert, and independent of patient wishes and opinions, needs to be qualified. Health and unhealth, as well as all diseases, occur only in particular living beings, each experiencing *inward* manifestations of health or its absence. The patient's feelings of illness or well-being must be reckoned with, not only because the patient insists, but because they are pertinent signs in the assessment of health. To be sure, there are people who feel fine but harbor unbeknownst to themselves a fatal illness (e.g., the vigorous athlete whose routine blood count shows early leukemia). Still,

when a patient complains of headaches or backaches, funny noises in his ears, fatigue, weakness, palpitations on exertion, pains or cramps in the abdomen, or dizziness, *he is not healthy*—even if he looks and acts healthy and even if the doctor fails “to find anything wrong,” i.e., fails to discover a cause for the symptoms. A *negative* report by the patient always, or almost always, counts.

There need be no discordance between the “objective” and “subjective” manifestations of health and unhealth. For the most part, they do correspond. The individual’s state of health shows itself both to himself and to the outsider, including the expert.

The relativist argument

5. Health is said to be relative not only to the age of the person but also to external circumstances, both natural and societal. A person with hay fever can be well in the absence of ragweed pollen or cats, and incapacitated in their presence. The hereditary deficiency of a certain enzyme (glucose-6-phosphate-dehydrogenase) results in serious illness for the individual who eats fava beans or takes certain drugs, but is otherwise without known consequence. Eyeglasses, it is said, make myopia no longer a disability. Paraplegia may be only an inconvenience to a theoretical physicist or a President of the United States, whereas an ingrown toenail could cripple the career of a ballerina. If various functions and activities are the measure of health, and if functions are affected by and relative to circumstances, then health too, so the argument goes, is relative.

Yet all these points, however valid, do not prove the relativity of health and unhealth. They show, rather, the relativity of the *importance* of health and unhealth. The person without hay fever, enzyme deficiency, myopia, paraplegia, and ingrown toenails, is, other things being equal, *healthier* than those *with* these conditions. To be sure, various absences of health can be ignored, and others overcome by change of circumstance, while still others, even if severe, can be rendered less incapacitating. But none of this affects the fact that they *are* absences of health, or undermines the possibility that health is something in its own right.

The most radical version of the relativist argument challenges the claim that health is a *natural* norm. According to this view, what is healthy is dependent not only on time and circumstance, but even more on custom and convention, on human valuation. To apply the concept or construct “healthy” is to throw our judgment of value onto a factual, value-neutral condition of the body; without human

judgment, there is no health and no illness. A recent commentator, Peter Sedgwick, argues that “all sickness is essentially deviancy” and that illness and disease, health and treatment are “social constructions”:

All departments of nature below the level of mankind are exempt both from disease and from treatment. The blight that strikes at corn or at potatoes is a *human invention*, for if man wished to cultivate parasites rather than potatoes (or corn) there would be no “blight” but simply the necessary foddering of the parasite-crop. Animals do not have diseases either, prior to the presence of man in a meaningful relation with them. . . . Outside the significances that man voluntarily attaches to certain conditions, *there are no illnesses or diseases in nature*. . . . Out of his anthropocentric self-interest, man has chosen to consider as “illnesses” or “diseases” those natural circumstances which precipitate the death (or the failure to function according to certain values) of a limited number of biological species: man himself, his pets and other cherished livestock, and the plant-varieties he cultivates for gain or pleasure. . . . Children and cattle may fall ill, have diseases, and seem as sick; but who has ever imagined that spiders or lizards can be sick or diseased? . . . The medical enterprise is from its inception value-loaded; it is not simply an applied biology, but a biology applied in accordance with the dictates of social interest.⁷

Insofar as one considers only disease, there is something to be said for this position—but not much. Disease-entities may in some cases be constructs, but the departures from health and the symptoms they group together are not. Moreover, health, although certainly a good, is not therefore a good whose goodness exists merely by convention or by human decree. Health, illness, and unhealth all may exist even if not discovered or attributed. That human beings don’t *worry* about the health of lizards and spiders implies nothing about whether or not lizards and spiders *are* healthy, and any experienced student of spiders and lizards can discover—and not merely invent—abnormal structures and functionings of these animals. Human indifference is merely that. Deer can be healthy or full of cancer, a partially eaten butterfly escaping from a blue jay is not healthy but defective, and even the corn used to nourish parasites becomes abnormal corn, to the parasite-grower’s delight.

Sedgwick must be partly forgiven for his confusion, for he has no doubt been influenced by a medicine that focuses on disease-entities and not on health, by a biology that does not consider wholes except as mere aggregates, and by that conventional wisdom of today’s social science which holds that *all* goods are good because

⁷ Peter Sedgwick, “Illness—mental and otherwise,” *Hastings Center Studies*, Vol. 1, No. 3 (1973), pp. 30-31 (italics in original).

they are valued, and *all* values are in turn mere conventions, wholly tied to the culture or the individual that invents them. To be sure, different cultures have different taxonomies of diseases, and differing notions of their cause. But the fact that *some* form of medicine is *everywhere* practiced—whether by medicine men and faith healers or by trained neurosurgeons—is far more significant than the differences in nosology and explanation: It strongly suggests that healers do not fabricate the difference between being healthy and being unhealthy; they only try to learn about it, each in his own way.

The language of health

I turn next away from these difficulties to the constructive part of the search for health. To begin with, I should say that I am not seeking a precise definition of health. I am rather inclined to believe that it is not possible to say definitively what health is, any more than it is possible to say wholly and precisely what “livingness” or “light” or “knowledge” or “human excellence” is. What I hope to show more clearly is what *sort* of a “thing” health is, so that we can be more secure in recognizing and promoting it, even if we are unable to capture it in speech.

First, I note that in ordinary speech we generally use the terms “health” and “healthy” as if we know what we are talking about. When military questionnaires or civil service applications ask about our state of health, we are not at a loss as to what is being inquired about, even if we may not have a simple or ready answer; the twin tendencies to exaggerate or to deny illness in answering such questionnaires prove all the more that we regard the question as meaningful and the answer as important. Even those cases in which someone feels and acts “fit as a fiddle” but harbors a fatal disease give us no difficulty: We say that the appearance of health was deceptive. The possibility of making such an error, far from undermining the existence of a true condition of health, in fact presupposes it; appearances can only be deceptive if there are realities with a view to which we discover deception.

Various idioms and expressions also support our contention that health is recognizable. Have we not heard it said of someone that he is “the picture of health”? In these and other expressions, we point to certain exemplary individuals as standards, suggesting that healthiness shines forth and makes itself known.

Etymological investigations may provide some clues for what we recognize when we recognize health. The English word *health* lit-

erally means “wholeness,” and *to heal* means “to make whole.” (Both words go back to the Old English *hal* and the Old High German *heil*, as does the English word “whole.”) To be whole is to be healthy, and to be healthy is to be whole. Ancient Greek has two etymologically distinct words translatable as “health,” *hygeia* and *euexia*. *Hygeia*, the source of our word “hygiene,” apparently stands for the Indo-European *sugwiges*, which means “living well,” or more precisely, a “well way of living.” *Euexia* means, literally, “well-habited-ness,” and, in this context, “good habit of body.”

Two observations are worth noting: 1) Both the Greek and the English words for health are totally unrelated to all the words for disease, illness, sickness. (This is also true in German, Latin, and Hebrew.) The Greek words for health, unlike the English, are also completely unrelated to all the verbs of healing: Health is a state or condition unrelated to, and prior to, both illness and physicians. 2) The English emphasis on “wholeness” or “completeness” is comparatively static and structural, and the notion of a whole distinct from all else and complete in itself carries connotations of self-containedness, self-sufficiency, and independence. In contrast, both Greek terms stress the *functioning* and *activity* of the whole, and not only its working, but its working well.⁸

Wholeness

Aided by these etymological reflections, we turn now from words to things in search of instances of *wholeness* and of *working-well* in nature. We shall look, of course, only at part of what is today called nature. We are not tempted to seek health in mountains or rocks or hurricanes, for these are surely not organic wholes. We look only at *animate* nature, at plants, animals, and man—true wholes, if any there be.

But are plants and animals authentic wholes, or are they mere

⁸ The Greek terms suggest that health is connected with the way we live and perhaps imply that health has largely an inner cause. Indeed, it seems reasonable to think of health understood as “living well” or “well-habited” as the cause of itself. Just as courage is the cause of courageous action and hence also of courage—for we become brave by acting bravely—so “living well” is health, is the *cause* of health, and is *caused by* health. The activities which in English usage we might be inclined to see as *signs* or *effects* of health, might in the Greek usage appear as the *essence* of health.

Related to this, the Greek seems to imply that to stay healthy requires effort and care, that however much nature makes health possible, human attention and habit are required to maintain and preserve it. Health is neither given nor usually taken away from the outside, nor is it the gratuitously expected state of affairs.

aggregates masquerading as wholes? I have tried elsewhere⁹ to show at greater length why living things cannot even be looked at, much less understood, except as wholes—and in this sense at least, as teleological beings—regardless of whether or not the species originally came to be by non-teleological processes. I will here present only some of the evidence.

First, consider the generation of living things. Each organism comes to be not at random, but in an orderly manner, starting from some relatively undifferentiated but nevertheless specific seed or zygote produced by parents of the same species, and developing, unfolding itself from within, in successive stages that tend toward and reach a limit—itsself, the fully formed organism. The adult which emerges from the process of self-development and growth is no mere outcome, but a completion, an end, a whole.

Second, a fully formed mature organism is an organic whole, an articulated whole, composed of parts. It is a structure and not a heap. The parts of an organism have specific functions which define their nature as parts: the bone marrow for making red blood cells; the lungs for exchange of oxygen and carbon dioxide; the heart for pumping the blood. Even at a biochemical level, every molecule can be characterized in terms of its function. The parts, both macroscopic and microscopic, contribute to the maintenance and functioning of the other parts, and make possible the maintenance and functioning of the whole.

But perhaps the best evidence that organisms are wholes, and that their wholeness and their healthiness correspond, is the remarkable power of self-healing. In hydra, planaria, and many plants, the power to restore wholeness shows itself in an amazing degree in the form of adult regeneration. A plant-cutting will regrow the missing roots, a hydra regrows amputated tentacles, and each half of a divided planarian will regenerate the missing half. In human beings, various organs and tissues—e.g., skin, the epithelia of the digestive tract, liver, bone marrow, and lymph nodes—have comparable regenerative powers. More generally, nearly all living things heal wounds or breaks and tend to restore wholeness. Foreign bodies are engulfed and extruded by amoebas and by man. This tendency to maintain wholeness by rejecting *additions* to the whole becomes marvelously elaborate in the immune system of higher animals, which sensitively recognizes and combats the entry of alien ele-

⁹ "Teleology and Darwin's *The Origin of Species*: Beyond Chance and Necessity?", a lecture given at St. John's College, Annapolis, Maryland (October 11, 1974).

ments, whether in the form of infectious agents, tumors, or grafted tissue.

The highly complex phenomenon of pain is also a sign that organisms are wholes. Pain serves as an advance warning, or as an accompanying sign, of a threat to bodily integrity. Yet its presence is as much a sign of wholeness as of a threat to wholeness, for pain, in normal circumstances, attests to a healthy nervous system detecting, and at the same time representing as an insistent sign, the presence of a threat of unhealth. (Here we see again a connection between experienced bodily feeling and actual bodily conditions.)

Well-working

So far my examination of wholeness has been largely, or at least explicitly, structural and static, in keeping with a view of health as capturable in a picture of health. Yet can one capture healthiness in a photograph? Don't we need at least a movie camera?

One way to examine this claim is to ask, "Is being healthy compatible with being asleep?" In a way, and up to a point, the answer must be "Yes." If we are healthy, we do not cease being healthy when we sleep. Sleep is necessary to stay healthy, and insomnia is sometimes a symptom of illness. Digestion, respiration, circulation, and metabolism continue quite normally while we sleep, but only if and because we do not sleep for long. Even this vegetative activity requires periodic wakefulness, at least enough to bite, chew, and swallow. Moreover, continued sleep would rapidly produce feebleness and atrophy of bones and muscles, as well as more gradual losses of other functions. And even if none of these disasters were to befall us, ours would be a sleepy kind of wholeness; the sleeping Rip Van Winkle might not have been sick, but he was hardly healthy. The wholeness of a man is not the wholeness of a statue of a man, but a wholeness-in-action, a working-well of the work done by the body of a man.

What constitutes *well-working*? The answers will vary from species to species: among other things, web-spinning for a spider, flight for some birds, swimming for others. For a given species, there will be some variations among individuals, increasingly so as functions are dissected into smaller and smaller subfunctions. For certain functions, the norm will be a mean between excess and deficiency: For example, blood pressure can be too high or too low, as can blood sugar or blood calcium; blood can clot too quickly or too slowly; body temperature can be too high or too low. And while

there is some arbitrariness in our deciding on the lower and upper limits of the so-called normal range in all these cases, this indistinctness of the margins does not indicate nature's arbitrariness or indifference about the norm. For we note that the body has elaborate mechanisms to keep these properties balanced, often very precisely, between excess and deficiency, to preserve homeostasis.

Yet it is at the whole animal that one should finally look for the measure of well-working, for the well-working of the whole. That there are mechanisms for restoring well-working at this level can be seen by considering the case of a dog missing one hind leg. Such a dog still runs—though certainly not as well as when he had four legs—by positioning his remaining hind leg as close as he can to the midline of his body, to become a more balanced tripod, and he does this without being taught or without previous experience in three-legged running. There appear to be “rules of rightness,” as Polanyi calls them, unique to each level of bodily organization, whose rightness is not explicable in terms of the lower levels, even though failure at the lower levels can cause failure at the higher. For example, a broken wing can prevent flight, but two intact wings, good chest muscles, and hollow bones don't add up to flight. Think about trying to give a mechanical account of the rules of rightness for the well-functioning that is riding a bicycle or swimming or speaking.

Thus, it is ultimately to the workings of the whole animal that we must turn to discover its healthiness. What, for example, is a healthy squirrel? Not a picture of a squirrel, not really or fully the sleeping squirrel, not even the aggregate of his normal blood pressure, serum calcium, total body zinc, normal digestion, fertility, and the like. Rather, the healthy squirrel is a bushy-tailed fellow who looks and acts like a squirrel; who leaps through the trees with great daring; who gathers, buries, and covers but later uncovers and recovers his acorns; who perches out on a limb cracking his nuts, sniffing the air for smells of danger, alert, cautious, with his tail beating rhythmically; who chatters and plays and courts and mates, and rears his young in large improbable looking homes at the tops of trees; who fights with vigor and forages with cunning, who shows spiritedness, even anger, and more prudence than many human beings.

To sum up: Health is a natural standard or norm—not a moral norm, not a “value” as opposed to a “fact,” not an obligation, but a state of being that reveals itself in activity as a standard of bodily excellence or fitness, relative to each species and to some extent to individuals, recognizable if not definable, and to some extent at-

tainable. If you prefer a more simple formulation, I would say that health is "the well-working of the organism as a whole," or again, "an activity of the living body in accordance with its specific excellences."¹⁰

III. The pursuit of health

The foregoing inquiry into the nature of health, though obviously incomplete and in need of refinement, has, I hope, accomplished two things: first, to make at least plausible the claim that somatic health is a finite and intelligible norm, which is the true goal of medicine; and second, by displaying something of the character of healthiness, to provide a basis for considering how it might be better attained. *Curiously, it will soon become apparent that even if we have found the end of medicine, we may have to go beyond medicine in order to find the best means for attaining it.*

Though health is a natural norm, and though nature provides us with powerful inborn means of preserving and maintaining a well-working wholeness, it is wrong to assume that health is the simply given and spontaneous condition of human beings, and unhealth the result largely of accident or of external invasion. In the case of non-human animals, such a view could perhaps be defended. Other animals instinctively eat the right foods (when available) and act in such a way as to maintain their naturally given state of health and vigor. Other animals do not overeat, undersleep, knowingly ingest toxic substances, or permit their bodies to fall into disuse through sloth, watching television and riding in automobiles, transacting business, or writing articles about health. For us human beings, however, even a healthy nature must be nurtured, and maintained by effort and discipline if it is not to become soft and weak and prone to illness, and certain excesses and stresses must be avoided if this softness is not to spawn overt unhealth and disease. One should not, of course, underestimate the role of germs and other hostile agents working from without; but I strongly suspect that the germ theory of disease has been oversold, and that the state of "host resistance," and in particular of the immunity systems, will become

¹⁰ Whatever progress we may have made in our search for health, large questions still remain, which I defer to another occasion. These questions include: What activities of the living body should be considered, and are all of them of equal rank? What are the specific excellences or fitnesses of various organisms, and can one hope to discover these standards for a being as complex as man, whose activities are so highly diversified and differentiated? What is a living body, and what a specifically *human* living body? Finally, what is the relation of health of body to psychic health?

increasingly prominent in our understanding of both health and disease.

Once the distinction is made between health nurture and maintenance, on the one hand, and disease prevention and treatment, on the other, it becomes immediately clear that bodily health does not depend only on the body and its parts. It depends decisively on the psyche with which the body associates and cooperates. A few examples will make this clear, if it is not already obvious. Some disorders of body are caused, at least in part, by disorders of soul (psyche); the range goes from the transitory bodily effects of simple nervousness and tension headaches, through the often severe somatic symptoms of depression (e.g., weight loss, insomnia, constipation, impotence), to ulcers and rheumatoid arthritis. Other diseases are due specifically to some aspect of the patient's way of life: cirrhosis in alcoholics, hepatitis in drug addicts, special lung diseases in coal miners, venereal disease in prostitutes.

But the dependence goes much farther than these obvious psycho- and socio-somatic interactions. In a most far-reaching way, our health is influenced by our temperament, our character, our habits, our whole way of life. This fact was once better appreciated than it is today.

In a very early discussion of this question, in the Platonic dialogue *Charmides*, Socrates criticizes Greek physicians for foolishly neglecting the whole when attempting to heal a part. He argues that "just as one must not attempt to cure the eyes without the head or the head without the body, so neither the body without the soul." In fact, one must care "first and most" for the soul if one intends the body to be healthy. If the soul is moderate and sensible, it will not be difficult to effect health in the body; if not, health will be difficult to procure. Greek medicine fails, it is charged, because men try to be physicians of health and of moderation separately.

Socrates does not say that excellence of soul and excellence of body are one and the same; indeed, health is clearly distinguished from moderation. Rather, the claim is that health is at least in large part affected by or dependent upon virtue, that being well in body has much to do with living well, with good habits not only of body but of life.

Now Socrates certainly knew, perhaps better than we, that accident and fortune can bring harm and ill health even to well-ordered bodies and souls. He knew about inborn diseases and seasonal maladies and wounds sustained in battle. He knew that health, though demanding care and discipline and requiring a certain control of

our bodily desires, was no sure sign of virtue—and that moderation is not all of virtue. He knew too, as we know, human beings whose healthiness was the best thing about them, and he knew also that to be preoccupied with health is either a sign or a cause of a shrunken human life. Yet he also knew what we are today altogether too willing to forget—that *we are in an important way responsible for our own state of health*, that carelessness, gluttony, drunkenness, and sloth take some of their wages in illness. At a deeper level, he knew that there was a connection between the fact that the human soul aspires beyond mere self-preservation, and the fact that men, unlike animals, can make themselves sick and feverish. He knew, therefore, that health in human being depends not only on natural gifts, but also on taming and moderating the admirable yet dangerous human desire to live better than sows and squirrels.

The Breslow findings

Today we are beginning again to consider that Socrates was possibly right, that our way of life is a major key to our sickness and our health. I would myself guess that well more than half the visits to American doctors are occasioned by deviations from health for which the patient, or his way of life, is in some important way responsible. Most chronic lung diseases, much cardiovascular disease, most cirrhosis of the liver, many gastrointestinal disorders (from indigestion to ulcers), numerous muscular and skeletal complaints (from low back pain to flat feet), venereal disease, nutritional deficiencies, obesity and its consequences, and certain kinds of renal and skin infections are in large measure self-induced or self-caused—and contributed to by smoking, overeating, excessive drinking, eating the wrong foods, inadequate rest and exercise, and poor hygiene. To these conditions must be added the results of trauma—including automobile accidents—in which drunkenness plays a leading part, and suicide attempts, as well as accidental poisonings, drug abuse, and many burns. I leave out of the reckoning the as yet poorly studied contributions to unhealth of all varieties made by the special stresses of modern urban life.

There are even indications that cancer is in some measure a disease of how we live, even beyond the clear correlations of lung cancer with smoking and of cancer of the cervix with sexual promiscuity and poor sexual hygiene. If the incidence of each kind of cancer could be reduced to the level at which it occurs in the population in which its incidence is lowest, there would be 90 per cent

less cancer. Recent studies show that cancers of all sorts—not only cancers clearly correlated with smoking and drinking—occur less frequently among the clean-living Mormons and Seventh-Day Adventists.

The foregoing, it will be noted, speaks largely about disease and unhealth, and about the role of our excesses and deficiencies in bringing them about. Unfortunately, we know less about what contributes to healthiness, as nearly all epidemiological studies have been studies of disease. But in the last few years, there have appeared published reports of a most fascinating and important series of epidemiological studies on *health*, conducted by Dean Lester Breslow and his colleagues at the UCLA School of Public Health. Having first developed a method for quantifying, albeit crudely, one's state of health and well-functioning, they investigated the effect of various health practices on physical health status. They have discovered, empirically, seven independent "rules" for good health, which correlate very well with healthiness, and also with longevity. People who follow all seven rules are healthier and live longer than those who follow six, six more than five, and so on, in perfect order. Let me report two of their more dramatic findings: The physical health status of those over 75 who followed all the "rules" was about the same as those aged 35-44 who followed fewer than three; and a person who follows at least six of the seven rules has an 11-year longer life expectancy at age 45 than someone who has followed less than four. Moreover, these differences in health connected with health practices persisted at all economic levels, and, except at the very lowest incomes, appeared largely independent of income.¹¹

The seven "rules" are: 1) Don't smoke cigarettes. 2) Get seven hours of sleep. 3) Eat breakfast. 4) Keep your weight down. 5) Drink moderately. 6) Exercise daily. 7) Don't eat between meals. ("Visit your doctor" is not on the list, though I must confess that I cannot find out if this variable was investigated.) It seems that Socrates, and also Grandmother, may have been on the right track.

One feels, I must admit, a bit foolish, in the latter half of the 20th century, which boasts the cracking of the genetic code, kidney machines, and heart transplants, to be suggesting the quaint formula, "Eat right, exercise, and be moderate, for tomorrow you will

¹¹ Nedra B. Belloc and Lester Breslow, "Relationship of Physical Health Status and Health Practices," *Preventive Medicine 1* (1972), pp. 409-421; and Nedra B. Belloc, "Relationship of Health Practices and Mortality," *Preventive Medicine 2* (1973), pp. 67-81.

be healthy." But quaint formulas need not have been proven false to be ignored, and we will look far more foolish if Breslow and his colleagues are onto something which, in our sophistication, we choose to overlook.

IV. Implications for policy

What might all this point to for medicine and for public policy regarding health? Let me try to sketch in outline the implications of the preceding sections, which, as a point of departure, I would summarize in this way: Health and only health is the doctor's proper business; but health, understood as well-working wholeness, is not the business only of doctors. Health is, in different ways, everyone's business, and it is best pursued if everyone regards and minds his *own* business—each of us his own health, the doctor the health of his patient, public health officials and legislators the health of the citizens.

With respect to the medical profession itself, there is a clear need to articulate and delimit the physician's domain and responsibilities, to protect against both expansion and contraction. The more obvious and perhaps greater danger seems to be expansion, given the growing technological powers that can serve non-therapeutic ends and the rising demands that these powers be used for non-medical ends. The medical profession must take the initiative in establishing and policing the necessary boundaries. The American Medical Association, the state and county medical societies, and the various specialty organizations would do well to examine current practices and to anticipate new technologies with a view to offering guidance to their members amidst these dangers. In some cases, they might well try to discourage or proscribe certain quasi-medical or extra-medical uses of medical technique. For example, the American College of Obstetrics and Gynecology should consider regulations barring its members from helping prospective parents determine or select the sex of their child-to-be; or the American Association of Neurological Surgeons could establish strict guidelines for the permissible uses, if any, of destructive brain surgery for the sake of modifying behavior.

It is true that such guidelines can always be violated in the privacy of an examining room or operating theater—but what rule cannot?—and it is also true that the decentralized character of American medicine makes professional self-regulation more difficult than in, say, Britain. Still, the profession has heretofore not

concerned itself with this problem, and it would be foolish to declare inefficacious a remedy not even contemplated because the disease itself had yet to be recognized.

Medical licensure provides an alternative device for drawing boundaries. It would be worthwhile to reconsider the criteria for medical licensure, and the privileges and prerogatives that it is meant to confer. The current system of licensing was designed largely to protect the public, and the reputation of the profession, against incompetents and charlatans. Yet this license to practice healing is now *de facto* a license to conduct research on human subjects, as well as a license to employ biomedical techniques in the service of any willing client, private or public, for almost any purpose not forbidden by law. Because these various techniques involve direct physical or chemical intervention into the human body, and because the practice of such interventions has been restricted to those who know about and can protect the human body, a medical license has been regarded as a necessary condition for all these extra-medical activities; but it has also come to be regarded as a *sufficient* condition.

Some have argued that changes in licensing be made to clearly distinguish the healing profession, and to require special (and additional) licensing for those who would engage in clinical research, practice various forms of biomedical indulgence, or serve purposes of social reform and social control. In some cases, people have called for completely separate professions of, say, abortionists, artificial inseminators, mercy killers, surgical beautifiers, mood elevators, and eugenic counsellors. This approach is recommended not only because it keeps the boundaries neat, but because it prevents the poor use of medical expertise and training, since at least some of these procedures and practices—including first-trimester abortion—could be mastered by moderately intelligent and dextrous high school graduates with six months of technical training.

On the other hand, since the demand for these extra-medical services is unlikely to disappear, it might be dangerous to separate them from the practice of medicine. Keeping the various functions and “professions” mixed together under the medical umbrella might cover them all with the longstanding ethical standards of the traditional medical profession, a protection that might not readily be provided, or even sought, by the “younger professions” if they were to be separated or expelled from the healing profession. Those who hold this view are willing to tolerate some confusion of purpose in exchange for what they believe will help produce necessary re-

straints. But whether the restraint would in fact be forthcoming is an open question.

But the greatest difficulty is how to protect the boundaries of the medical domain against unreasonable *external* demands for expansion. The public's misperception of medicine is ultimately more dangerous than the doctor's misperception of himself. The movement towards consumer control of medicine, the call for doctors to provide "therapy" for social deviants and criminal offenders, and the increasing governmental regulation of medical practice all run the risk of transforming the physician into a mere public servant, into a technician or helper for hire. Granted, the doctor must not be allowed to be a tyrant. But neither must he become a servant. Rather, he must remain a leader and a teacher. The community must respect the fact that medicine is an art and that the doctor is a man of expert knowledge, deserving more than an equal voice in deciding what his business is. Though one may rightly suspect *some* of the motives behind the medical profession's fear of governmental intrusion, one must acknowledge the justice of at least this concern: Once the definition of health care and the standards of medical practice are made by outsiders—and the National Health Insurance schemes all tend in this direction—the physician becomes a mere technician.¹²

The case for health maintenance

Yet if the medical profession wants to retain the right to set its own limits, it must not only improve its immunity against foreign additions to its domain, but must also work to restore its own wholeness. The profession must again concern itself with health, with wholeness, with well-working, and not only with the cure of disease. The doctor must attend to health maintenance, and not only treatment or even prevention of specific diseases. He should no longer look befuddled when a patient asks him, "Doctor, what regi-

¹² A recent lawsuit in Maryland illustrates how consumerism and governmental participation can work together toward this result. A married woman brought suit against two Washington suburban hospitals that refused to permit her to undergo voluntary sterilization procedures in their facilities, despite her physician's agreement to perform the operation. (One hospital had refused permission on moral grounds, the other because the patient and her husband refused to comply with hospital regulations for sterilization procedures that required permission of the spouse.) The suit claimed that the hospitals, because they had received Hill-Burton funding for construction, were obliged to meet the health needs of all members of the community, without discrimination. The plaintiff blithely *assumed* that the community, or rather each member thereof, is the final judge of what constitutes a *health need*. The case has not yet been decided.

men do you suggest in order that I may remain healthy?" This implies, of course, changes in medical orientation that in turn imply changes in medical education both difficult to design in detail and not easy to institute in practice. But again, we have not seriously thought about how to do this, because we have not seen that it was something that might need doing. To recognize and identify this defect is to take the first, and thus the biggest, step toward its amelioration.

I am not saying that doctors should cease to be concerned about disease, or that they should keep us in hospitals and clinics until we become fully healthy. I do suggest, however, that physicians should be more interested than they are in finding ways to keep us from their doors. Though medicine must remain in large part restorative and remedial, greater attention to healthy functioning and to regimens for becoming and remaining healthy could be very salutary, even toward the limited goal of reducing the incidence of disease. Little intelligence and imagination have thus far been expended by members of the profession, or by health insurance companies, to devise incentive schemes that would reward such a shift in emphasis (e.g., that would reward financially both patient and physician if the patient stays free of the need for his services). I invite people cleverer than I to make such efforts, especially in conjunction with the likely changes in the financing of medical care.

Moving beyond implications for the relation between doctor and patient to those for medical research, I would emphasize the importance of epidemiological research on *healthiness*. We need to devise better indices of healthiness than mortality and morbidity statistics, which, I have argued, are in fact not indices of *health* at all. The studies like those of Breslow and his collaborators are a step in the right direction and should be encouraged. Only with better measures of healthiness can we really evaluate the results of our various health practices and policies.

We also need large-scale epidemiological research into health maintenance, to learn more about what promotes, and what undermines, health. More sophisticated studies in nutrition, bodily exercise, rest and sleep, relaxation, and responses to stress could be very useful, as could expanded research into personal habits of health and hygiene and their effects on general healthiness, overall resistance to disease, and specific resistance to specific diseases. We need to identify and learn about healthy subgroups in the community, like the Mormons, and to discover what accounts for their success.

All of these things are probably obvious, and most of them have been championed for years by people in the fields of public health

and preventive medicine—though they too have placed greater emphasis on disease prevention than on health maintenance. Their long-ignored advice is finally beginning to be heeded, with promising results. For example, a recent study reports a surprising downturn (after a 25-year climb) in the death rate from heart attacks among middle-aged men, attributed in part to changes in smoking and eating habits and to new treatments for high blood pressure. Yet this approach will always seem banal and pedestrian in comparison with the glamorous and dramatic style of high-technology therapeutics, with the doctor locked in combat with overt disease, displaying his marvelous and magical powers. My high regard for these powers cannot stifle the question whether the men who first suggested adding chlorine to drinking water or invented indoor plumbing didn't contribute more to healthiness than the Nobel Prize winners in Medicine and Physiology who discovered the chemical wonders of enzyme structure or of vision. It might be worthwhile to consider by what kinds of incentives and rewards the National Institutes of Health or the AMA might encourage more and better research into health maintenance and disease prevention.

Fostering responsibility

Yet as has been repeatedly emphasized, doctors and public health officials have only limited power to improve our health. Health is not a commodity which can be delivered. Medicine can help only those who help themselves. Discovering what will promote and maintain health is only half the battle; we must also find ways to promote and inculcate good health habits and to increase personal responsibility for health. This is, no doubt, the most fundamental and also the most difficult task. It is but one more instance of that age-old challenge: how to get people to do what is good for them without tyrannizing them. The principles of freedom and of wisdom do not always—shall I say, do not very often?—lead in the same direction.

Since this is not a new difficulty, we do have some experience in how to think about it. Consider the problem of getting people to obey the law. Policemen and judges are clearly needed to handle the major crimes and criminals, but it would be foolish to propose, and dangerous to provide, even that degree of police surveillance and interference required to prevent only the most serious law-breaking. But though justice is the business of the policeman and the judge, it is not their business alone. Education—at home, in schools, in civic and religious institutions—can “teach” law-abiding-

ness far better than policemen can, and where the former is successful, there is less need of the latter.

Yet even without considering the limitations of this analogy, the limits of the power of teachers—and of policemen as well—to produce law abidingness are all too apparent. And when one considers that fear of immediate, identifiable punishment probably deters law-breaking more than fear of unhealth deters sloth and gluttony, we see that we face no simple task. The wages of poor health habits during youth are only paid much later, so much later that it is difficult to establish the relation of cause and effect, let alone make it vivid enough to influence people's actions. If it isn't likely to rain for 20 years, few of us are likely to repair our leaky roofs.

This is not a counsel of despair. On the contrary, I am much impressed with the growing interest in health and health education in recent years, including the greater concern for proper nutrition, adequate exercise, dental hygiene, and the hazards of smoking, and the evidence that, at least among some groups, this attention is bearing fruit. Nevertheless, when we consider the numerous impediments to setting in order our lives and our communities, I think we should retain a healthy doubt about just how healthy we Americans are likely, as a community, to become.

This skepticism is rather lacking in most political pronouncements and policies regarding health. Making unwarranted inferences from medicine's past successes against *infectious* disease, being excessively impressed with the technological brilliance of big hospital medicine, mobilizing crusades and crash programs against cancer and heart disease, the health politicians speak as if more money, more targeted research, better distribution of services, more doctors and hospitals, and bigger and better cobalt machines, lasers, and artificial organs will bring the medical millennium to every American citizen. Going along with all this is a lack of attention to health maintenance and patient responsibility. While it would surely be difficult for the federal government to teach responsibility, we should not be pleased when its actions in fact discourage responsibility.

A right to health?

One step in this direction is the growing endorsement of the so-called right to health, beyond the already ambiguous and dubious right to health care. A recent article argued thus:

The right to *health* is a fundamental right. It expresses the profound truth that a person's autonomy and freedom rest upon his ability to

function physically and psychologically. It asserts that no other person can, with moral justification, deprive him of that ability. The right to *health care* or the right to *medical care*, on the other hand, are qualified rights. They flow from the fundamental right, but are implemented in institutions and practices only when such are possible and reasonable and only when other rights are not thereby impeded.¹³

If the right to health means only the right not to have one's health destroyed by another, then it is a reasonable but rather impotent claim in the health care arena; the right to health care or medical care could hardly flow from a right to health, unless the right to health meant also and mainly the right to become and to be kept healthy. But if health is what we say it is, it is an unlikely subject of a right in either sense. Health is a state of being, not something that can be given, and only in indirect ways something that can be taken away or undermined by other human beings. It no more makes sense to claim a right to health than a right to wisdom or courage. These excellences of soul and of body require natural gift, attention, effort, and discipline on the part of each person who desires them. To make my health someone else's duty is not only unfair; it is to impose a duty impossible to fulfill. Though I am not particularly attracted by the language of rights and duties in regard to health, I would lean much more in the direction, once traditional, of saying that health is a *duty*, that one has an obligation to preserve one's own health. The theory of a right to health flies in the face of good sense, serves to undermine personal responsibility, and, in addition, places obligation where it cannot help but be unfulfillable.

The "kidney-machine" legislation

Similarly, the amendment to the Medicare legislation which provides payment for "kidney-machine" treatment for all in need, at a cost of from \$10,000 to \$40,000 per patient, is, for all its good intentions, a questionable step. First of all, it establishes the principle that the federal government is the savior of last resort—or, as is more likely at this price tag, the savior of first resort—for specific persons with specific diseases. In effect, the government has said that it is in the national interest for the government to pay, disease by disease, life by life, for life-saving measures for all its citizens. The justice of providing benefits of this magnitude solely to people

¹³ Philip R. Lee and Albert R. Jonsen, editorial: "The Right to Health Care," *American Review of Respiratory Disease*, Vol. 109 (1974), pp. 591-92 (italics in original). Dr. Lee is a former Assistant Secretary for Health at HEW.

with kidney disease has been loudly questioned, and hemophilia organizations are pressing for government financing of equally expensive treatment. Others have called attention to the impossible financial burden that the just extension of this coverage would entail. Finally, this measure gives governmental endorsement, in a most dramatic and visible way, to the high-cost, technological, therapy-oriented approach to health. This approach has been challenged, on the basis of a searching analysis of this kidney-machine legislation, in a report by a panel of the Institute of Medicine of the National Academy of Sciences, which, with admirable self-restraint, comments: "One wonders how many billions of dollars the nation would now be spending on iron lungs if research for the cure of polio had not been done."¹⁴

This is not to say that, in the special case of the kidney machines under the special circumstances in which the legislation was passed, a persuasive case was not made on the other side. Clearly, it was hoped that perfection of kidney transplantation or future prevention of kidney disease would make this high-cost insurance obsolete before too long. Moreover, no one wishes to appear to be, or indeed to be, callous about the loss of life, especially preventable and premature loss of life. Still, the dangers of the kidney machine legislation must be acknowledged.

One might even go so far as to suggest that prudent and wise legislators and policy makers must in the future resist (in a way that no private doctor should be permitted to resist) the temptation to let compassion for individual calamities and general sentimentality rule in these matters. Pursuing the best health policy for the American people—that is, a policy to encourage and support the best possible health for the American people—may indeed mean not taking certain measures that would prevent known deaths. Only by focusing on health and how one gets it, and by taking a more long-range view, can our health policy measure up in deed to its good intentions.

Is National Health Insurance good for health?

The proposals for a National Health Insurance seem also to raise difficulties of this sort, and more. Medical care is certainly very expensive, and therefore, for this reason alone, not equally available to all. The economic problems are profound and genuine, and there

¹⁴ *Disease by Disease Toward National Health Insurance?* (Washington, D.C., Institute of Medicine-National Academy of Sciences, 1973).

are few dispassionate observers who are not convinced that something needs to be done. Many technical questions have been debated and discussed, including the range of coverage and the sources of financing, and organized medicine has voiced its usual concern regarding governmental interference, a concern which I have already indicated I share in regard to the delimitation of the doctor's role and the scope of health care. But some of the most serious issues have received all too little attention.

The proposals for National Health Insurance take for granted the wisdom of our current approaches to the pursuit of health, and thereby insure that in the future we will get more of the same. These proposals will simply make available to the non-insured what the privately insured now get: a hospital-centered, highly technological, disease-oriented, therapy-centered medical care. The proposals have entirely ignored the question of whether what we now do in health is what we should be doing. They not only endorse the status quo, but fail to take advantage of the rare opportunity which financial crises provide to re-examine basic questions and directions. The irony is that real economizing in health care is probably possible only by radically re-orienting the pursuit of health.

One cannot help getting the impression that it is economic *equality*, not health, and not even economizing, that is the primary aim of these proposals. At a recent seminar in which I participated, an official of HEW informally expressed irritation at those who are questioning whether the so-called health care delivery system is really making us healthier, and suggested that their main goal was to undermine liberal programs enacted in recent years. Yet this official went on to say that even if the evidence conclusively showed that all the government's health programs in no way actually improved health, the programs ought to be continued for their extra-medical—i.e., social and economic—benefits. For myself, I confess that I would prefer as my public health official the cold-hearted, even mean-spirited fellow who is interested in health and who knows how to promote it.

All the proposals for National Health Insurance embrace, without qualification, the no-fault principle. They therefore choose to ignore, or to treat as irrelevant, the importance of personal responsibility for the state of one's health. As a result, they pass up an opportunity to build both positive and negative inducements into the insurance payment plan, by measures such as refusing or reducing benefits for chronic respiratory disease care to persons who continue to smoke.

There are, of course, complicated questions of justice raised here, and even to suggest that the sick ever be in any way blamed or penalized flies in the face of current custom and ways of thinking. Yet one need not be a Calvinist or a Spartan to see merit in the words of a wise physician, Robert S. Morison, writing on much the same subject:

In the perspectives of today, cardiovascular illness in middle age not only runs the risk of depriving families of their support, or society of certain kinds of services; it increasingly places on society the obligation to spend thousands of dollars on medical care to rescue an individual from the results of a faulty living pattern. Under these conditions, one wonders how much longer we can go on talking about a right to health without some balancing talk about the individual's responsibility to keep healthy.

I am told that Thorstein Veblen used to deplore the fact that in California they taxed the poor to send the rich to college. One wonders how he would react to a system which taxes the virtuous to send the improvident to hospital.¹⁵

But even leaving aside questions of justice, and looking only at the pursuit of health, one has reason to fear that the new insurance plan, whichever one it turns out to be, may actually contribute to a worsening rather than an improvement in our nation's health, especially if there is no balancing program to encourage individual responsibility for health maintenance.

One final word. Despite all that I have said, I would also emphasize that health, while a good, cannot be the greatest good, either for an individual or for a community. Politically, an excessive preoccupation with health can conflict with the pursuit of other important social and economic goals (e.g., when cancer-phobia leads to government regulations that unreasonably restrict industrial activity or personal freedom). But more fundamentally, it is not mere life, nor even a healthy life, but rather a good and worthy life for which we must aim. And while poor health may weaken our efforts, good health alone is an insufficient condition or sign of a worthy human life. Indeed, though there is no such thing as being too healthy, there is such a thing as being too concerned about health. To be preoccupied with the body is to neglect the soul, for which we should indeed care "first and most," and more than we now do. We must strike a proper balance, a balance that can only be furthered if the approach to health also concentrates on our habits of life.

¹⁵ R. S. Morison, "Rights and Responsibilities: Redressing the Uneasy Balance," *The Hastings Center Report*, Vol. 4, No. 2 (April 1974), p. 4.