

Resource Allocation in Health Care: The Allocation of Lifestyles to Providers

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THE PROCESS OF RESOURCE ALLOCATION IN HEALTH care can be viewed through a variety of different prisms, each with its own instructive refraction. The most common approach is to style the subject matter as a set of decisions by which scarce *real* resources (as distinct from *financial* resources) are allocated to competing medical ends. It is the perspective we almost instinctively adopt when the topic of “resource allocation in health care” is discussed. From that vantage point we ponder weighty issues, such as the diversion of resources from curative to preventive care, the allocation of resources to persons in different socioeconomic groups, or the issue of “rationing” health care.

An alternative approach, however, is to style the process of resource allocation here, as elsewhere in the economy, simply as an exchange of favors among members of society—in this case, between the providers of health services and their patients (or third parties paying on the patients’ behalf). So viewed, the allocation of resources in health care is seen to emerge from bargaining over the distribution of economic privilege among members of society. Much of the economist’s work in health care is based on this approach. It will be the perspective adopted for the present article.

Persons not reared in the economist’s culture—and, particularly, physicians—are apt to look with dismay upon this philistine perspective. Granted, the perspective does eclipse from view the rich complexity

of the choices by which resources are actually allocated to and within the health care sector. The purpose of taking the narrower view here, however, is not at all to deny these many other dimensions of the process, nor even to denigrate their importance. It is merely to move the spotlight from relatively well-lit ground to terrain that tends to be obscured from view amidst the more pious imagery typically conjured up in discussions on resource allocation in health care.

Specifically, the question to be explored in this article are the standards by which one should judge the lifestyles the providers of health care extract from the process of health care, to the extent that these lifestyles are not effectively being determined in perfectly competitive markets (as they probably are for many types of health workers). Because the markets of physicians' services can hardly be described as competitive—certainly not for insured inpatient services—much of the article will focus explicitly or implicitly on the prices of physician services and the lifestyles they beget. It is an issue now squarely before the nation as it grapples with the problems of “physician-payment reform.”

But the issues raised in the article apply, *mutatis mutandis*, also to other areas of health care where providers face less than perfectly competitive markets for their services and products—for example, in hospital care, or in the markets for prescription drugs. In any of these markets, the offerors confront “consumers” who may be unable to assess the medical and economic merits of the services being offered, or who are uninterested in doing so because they are covered by health insurance, or who are so disoriented by pain and anxiety as to make a mockery of the term “consumer's choice.” The offerors in health care can easily exploit this weakness on the demand side to their own economic advantage, a circumstance no society leaves unnoticed and unregulated. A point to be made in the article, therefore, is that many of the lifestyles supported by the process of health care must needs be regulated in some fashion, and that is likely to be so even under policies now being marketed under the felicitous label “the market approach to health care.”

Health Care as an Exchange of Favors

If the process of health care is styled as an exchange of favors, one can describe it by two distinct transfers of resources, namely

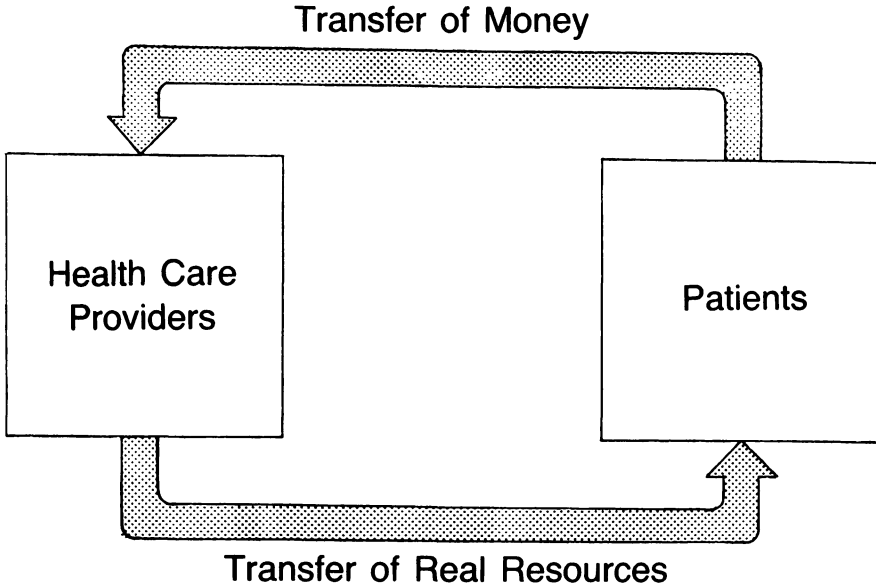


FIG. 1. The Bilateral Transfer of Resources in Health Care.

1. a transfer of *real* health care resources (physician time, drugs, Band-Aids, and so on) from the providers of health care to patients, and
2. a reverse transfer of *financial* resources from society to the providers of health care.

The first of these transfers is intended to enhance the *health status of patients* and the second to enhance the *economic status of providers*. The term "providers" in this context should be understood to include any person who derives the bulk of his or her livelihood directly or indirectly from the provision of health care to patients. The term thus embraces not only physicians and other health professionals, but also the owners and employees of health care facilities and of the manufacturing firms who supply the health sector with equipment, supplies, and drugs. In its broadest meaning, the term includes also the employees and shareholders of the health insurance industry whose incomes and profits now constitute the fastest growing component of national health expenditures (Waldo, Levit, and Lazenby 1986, table 3).

Figure 1 illustrates the two resource flows graphically to burn them firmly into the reader's mind.

One can think of the monetary transfer to the providers of health care as their generalized claim on the good things in life, that is, on the food, clothes, shelter, automobiles, vacations, fur coats, and so on, produced by the economy. Thus, the statement that health care expenditures this year reached, say, 10 percent of the gross national product (GNP) does not imply that American patients cut out for themselves a slice equal to 10 percent of that proverbial national pie, nor does it necessarily mean patients received more services if, one year later, 11 percent of the GNP were spent on health care. Rather, the statement signifies that in return for whatever services and supplies the providers did transfer to patients this year they were allowed to claim for themselves 10 (or 11) percent of that national pie as a reward.

In 1985 a claim equal to 10.7 percent of the GNP was handed to American providers of health care collectively in return for whatever health services American patients received in that year. In Canada and West Germany, providers were rewarded with generalized claims equal to between 8 and 9 percent of these nations' GNP, respectively, as a reward for whatever services were rendered patients in these countries. In the United Kingdom, that reward has been only about 6 percent of that nation's GNP in recent years (see Waldo, Levit, and Lazenby 1986, 5). In Japan, it has been about 6.5 percent (Japanese Ministry of Health and Welfare 1985, table 3).

Precisely what *real* health services patients in these other nations did and did not receive in comparison with American patients is, of course, an intriguing question. For example, in view of the much lower national health expenditures in neighboring Canada, one is tempted to pose American providers the following questions:

In return for the much higher allocation of *financial* resources from American society to American providers of health care collectively, do American patients receive a commensurately superior flow of *real* health care services? If so, precisely what are the extras? Do Americans see physicians more frequently than do Canadians? Is the probability of surviving a given illness episode in the United States perceptibly higher, on average, than that in Canada? Do Americans, on average, walk about with less pain from ill health and with less anxiety over the physical and financial consequences of illness than do Canadians? And how, on average, do the poorest of the two nations' citizens fare in health care?

Convincing answers to these questions are not known at this time. But the questions are eminently researchable and eminently worth asking.

In fact, these questions lead directly to yet other intriguing questions, namely:

What actually shapes the relation between the *monetary* and *real* resource transfers in figure 1? Are the two so tightly linked that, in discussions on "resource allocation in health care," one can be viewed as a proxy for the other, as is so often done in public debates on health policy? Or is the link between the two loose enough to permit each to go its own way?

The providers of health care certainly seem to posit a very tight linkage or, at least, they pretend that they do. On this professed belief, any proposal to constrain the flow of *money* from society to providers (the upper loop in figure 1) is immediately decried by the latter as a proposal to limit the flow of *real* health services from providers to patients (the lower loop). It is branded as a direct assault on the "quality" of health care, if not as an attempt to "ration" health care outright. That belief, for example, seems implicit in the American Medical Association's contention that the fee freeze imposed by Congress in 1985 had "forced the nation into a two-tier system for medical care in which Medicare patients have become 'second-class citizens'" (*American Medical News* 1985, 1).

Conversely, it is usually pretended by the providers of health care that any increase in the money flow to them—for example, supplementation of the British National Health Service (NHS) through private health insurance, or increases in the American Medicare and Medicaid budgets—would lead *ipso facto* and in some unspecified manner to a proportionate increase in the real health care resources made available to patients. It is the medical analogue of the trickle-down theory.

Not only the providers of health care tend to think that way; government officials usually do as well. Suppose, for example, that the state of New Jersey decided to raise the relatively low fees paid physicians under that state's Medicaid program by, say, 25 percent. A natural inclination among politicians would then be to claim that much had been done for the state's poor. In fact, in their published reports state officials would measure their goodwill toward the poor

TABLE 1
Comparison of 1984 Medical Fees, United States and Canada

	Prevailing charges under Medicare, California (\$)	Median fees, United States (\$)	Fees in Ontario (\$ Canadian)
Electrocardiogram (professional charges only)	40	35	7
Insertion of pacemaker	1,815	1,200	334
Appendectomy	734	600	259
Extraction of lens	1,341	—	368
Hysterectomy	1,393	901	503
Coronary artery bypass	5,200	—	1,300

Source: Reinhardt 1985, table 2.

precisely by this monetary transfer to physicians. The only reliable inference to be drawn from the assumed fee increase, however, would be that something had been done for New Jersey's physicians. Just what additional health services the physicians would ultimately bestow upon New Jersey's poor in return for the higher fees—the yardstick by which the benefits received by the poor ought to be assessed—would be an entirely different matter.

This seemingly pedantic distinction between types of resource allocations in health care cannot be exaggerated in thinking about health policy, as will be readily apparent from the data presented in tables 1 and 2. Table 1 records fee charged, in 1984, by physicians in the United States and in Canada for a variety of standard surgical interventions. Table 2, taken directly from a recent report by the Office of Technology Assessment (U.S. Congress. Office of Technology Assessment 1986, table 2.11), records the enormous variation in the so-called prevailing (maximum) charges allowed physicians under part B of the federal Medicare program in 1980.

A budget allocation of the equivalent of \$1 million in U.S. dollars obviously buys many more operations of a given type in neighboring Canada than it does in the United States, and it buys far fewer such operations in California than it does in most other regions of the

TABLE 2
High and Low Prevailing Charges in Localities for Five Selected
Procedures, Fee Screen Year 1980

Procedure	Locality prevailing charges			
	High	Low	Range	Ratio
1. Brief followup hospital visit by an internist . . .	\$ 33.10	\$ 7.00	\$ 26.10	4.73:1
2. Extraction of lens by an ophthalmologist . . .	1,390.70	536.50	854.20	2.59:1
3. Electrosection of prostate by a urologist	1,410.40	475.25	935.15	2.97:1
4. Hysterectomy by an obstetrician/gynecologist	1,305.20	536.50	768.70	2.43:1
5. Chest X-ray single view by a radiologist	35.00	5.50	29.50	6.36:1

Source: U. S. Congress. Office of Technology Assessment 1986, table 2.11.

United States. In 1984, for example, the federal Medicare program for the aged paid surgeons in Mississippi a maximum fee of \$2,200 for a coronary bypass, while surgeons in California were paid \$5,000 for the procedure and those in New York \$6,000 (Reinhardt 1985, figures 2 and 3).

Even more remarkable is variation in the hourly remuneration earned by American physicians in different specialties. For certain surgical specialties—e.g., ophthalmology and thoracic surgery—prevailing fees imply an hourly remuneration manyfold that paid primary-care physicians for nonprocedural care.

Differences in practice costs and in length of training can explain some of the observed variations in fees, but they cannot fully explain them. These variations remain a perplexing mystery among both researchers and policy makers, and even among physicians themselves. And they naturally lead to questions of the following sort:

Suppose the Medicare program could somehow reduce its monetary allocation for coronary bypass surgery in California below previous levels, so that the annual rate of such operations in California could be maintained only if California surgeons were content with a money transfer per operation equal to, say, the United States median fee.

TABLE 3
Charges to Insurer and Costs to the Physician for a Series of Diagnostic Tests Ordered for One Patient during One Office Visit

Test	Actual billing by M.D. to CTCO insurance	
	Billed to CTCO	Charge to M.D. by SKCL
Chem 23	\$ 30.00	\$ 10.00
HDL	60.00	included in Chem 23
Electrolytes	40.00	included in Chem 23
RA factor	18.00	8.00
Sed. rate	20.00	7.00
Thyroid panel	60.00	14.00
TSH	60.00	37.00
Estrogen	90.00	53.00
Progesterone	80.00	49.00
CBC	20.00	6.50
UA	<u>10.00</u>	<u>5.50</u>
TOTAL	\$488.00	\$190.00
NET MARKUP (PROFIT)	\$298.00	

Also, the mail order lab's common practice is to discount charges by 40% to physicians with any volume. If this is the case here, then $60\% \times 190 = \$114$ charge on \$488 billed to insurance as minus \$114 equals net markup of \$374 on *one* patient.

Source: Data supplied by the Caterpillar Tractor Company.

Would that rationing of money for California surgeons necessarily *have to* lead to rationing of coronary bypasses in that state? And, if it did; who ought to be blamed for that rationing of medical services: the federal government for constraining fees in California to the United States median level, or California surgeons for withholding their services from patients?

This line of questioning is sharpened if one contemplates the data presented in table 3. These data represent charges for diagnostic tests ordered by a physician during one office visit for an employee of the Caterpillar Tractor Company (CTCO), a company that funds and administers its own health insurance program for employees. The second column in the table exhibits the amounts the physician billed the company for services rendered the employee. The third (right-most) column shows the amount the physician was charged by the

outside laboratory (SKCL) that processed the tests. It is seen that, depending on whether or not the laboratory grants the physician a volume discount, his mark-up over costs was either \$298 on costs of \$190 (156 percent of costs) or \$374 on costs of \$114 (328 percent of costs). If now, as part of a cost-containment strategy, the Caterpillar Tractor Company sought to reduce the physician's markup to, say, a mere 100 percent above costs, could the firm's cost-containment program fairly be accused of assaulting the "quality" of health care, or even of rationing health care outright?

In connection with diagnostic tests, the preceding illustration does not seem an isolated case. In an advertisement of its AV-1000™ test equipment, for example, the producer of that equipment advises prospective clients (physicians) that the "typical scheduled reimbursement for the complete AV-1000™ test is \$130" and that, at that price per test, the outlay of \$4,995 for the equipment will be recouped in four months at only 10 tests per month and in six weeks at 30 tests per month. The advertisement further advises physicians that "scheduled reimbursement in the South Florida metropolitan area for venous and arterial testing is \$125–\$250." It may reasonably be assumed that, upon perceiving these fees, the producer of the equipment will not have been dainty in setting the markup over true manufacturing costs to arrive at the price tag of \$4,995. Another manufacturer, promoting its VISION™ blood-test equipment, suggests in its "profit worksheet" for the physician a payback of 5.8 months for that equipment. Surely these high markups for diagnostic tests and the unusually fast payback periods for the diagnostic equipment are feasible because the market for tests of this sort is far from perfectly competitive. This circumstance, in turn, raises the question: What lifestyle ought the use of such tests by patients bestow upon the producers of the diagnostic equipment and the physicians who purchase and use that equipment?

The questions raised above can be broadened to the entire American health care scene. Throughout the 1980s, the providers of health care in the United States have lamented loudly over sundry meek attempts at cost containment by government and business. There have been dark hints that the money budgets allocated to health care have been brutally slashed by both payers, and that these cuts are inexorably pushing the United States health sector toward the type of rationing practiced by the much-loathed British National Health Service.

There has, in fact, been a marked reduction in hospital admissions

and in average length of stay per admission in the United States since 1980. There has also been a reduction in the number of physician visits per capita (Reynolds and Duann 1985, 25). And there have appeared in newspapers throughout the country disturbing anecdotes of outright denial of critically needed health care to poor, uninsured patients (in this connection see, for example, Reinhardt 1986; Robert Wood Johnson Foundation 1983), sometimes within sight of otherwise idle health care resources. Are these contractions in the flow of *real* health services to patients an unavoidable consequence of a corresponding contraction in the flow of *money* to the American health sector?

Actually, it would be difficult to support that hypothesis with the available data on aggregate health expenditures. If anything, the aggregate flow of *financial* resources to the American health care sector appears to have increased apace since 1980, whether one measures it in current dollars, in constant-purchasing-power dollars (see figure 2), or by the percentage of the GNP devoted to health care (see figure 3). In 1980, for example, Americans transferred 9.1 percent of their GNP to the providers of health care. By 1984 that percentage had increased to 10.3 percent of a then larger GNP. As already noted, by 1985 it had grown to 10.7 percent of a still larger GNP. It is a good bet that it will have climbed further toward 11 percent of the GNP in 1986.

The driving force behind this increase in national health expenditures appears to have been rapid increases in the money transfer per unit of health resource (prices) the providers of health care have been able to extract from patients or third-party payers (table 4), in spite of the fact that there is vast excess capacity in the hospital sector and that physicians are now generally believed to be in surplus, factors that would have depressed prices in a properly functioning market.

Table 5, based on data recently reported by the Colorado Health Data Commission (1986), illustrates this phenomenon quite vividly. It is seen that for hospitals in Colorado's north region, total inpatient charges increased by 10 percent during the period of 1983 to 1985, while the total number of patient days fell by 19 percent. Apparently prices rose sufficiently to compensate more than fully for the loss in patient days. If outpatient services are included in the data, then total net revenue for that region's hospitals rose 21 percent during 1983 to 1985 and total net profits by 95 percent. For all hospitals in Colorado, the number of patient days during the period fell by 18

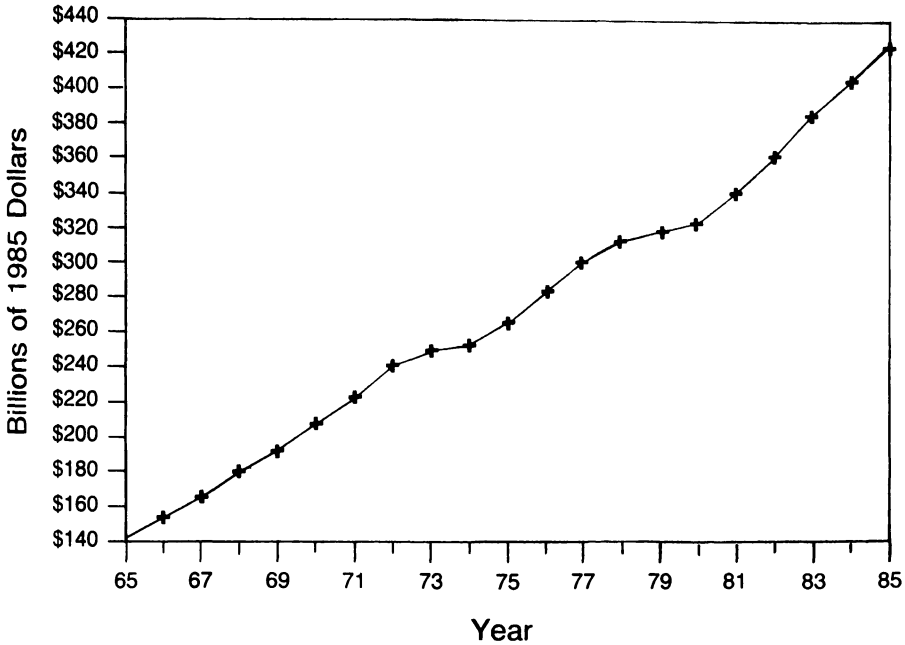


FIG. 2. U.S. National Health Expenditures (in constant 1985 dollars).

Sources: Data on national health expenditure from the Health Care Financing Administration of the U.S. Department of Health and Human Services. Data on the Consumer Price Index, which was used to convert the expenditure series into constant dollars, from U.S. President (1986, table B-55, p. 315).

TABLE 4
Trends in the Consumer Price Index, United States, 1986

Price index	Percentage increase Dec. 1985 to Dec. 1986
CPI-U, all items	1.1%
CPI-U, all services	4.4
CPI-U, medical care services	7.9
Physician services	7.8
Hospital room	7.7
Prescription drugs	9.0

Source: U.S. Bureau of Labor Statistics 1987, table 1.

TABLE 5
Selected Hospital Characteristics 1983/85, North Region, Colorado

Variable	1983	1985	Percentage change 1983-1985
Number of admissions	49,732	44,834	- 10%
Average length of stay (days)	5.2	4.6	- 12
Number of patient days	256,733	208,359	- 19
Inpatient charges (\$ millions)	\$130.4	\$143.4	+ 10
Inpatient charges per day	\$510	\$680	+ 33
Inpatient charges per discharge	\$2,617	\$3,199	+ 22
Net profit (\$ thousands)*	\$6,321	\$12,345	+ 95
Net profit margin*, **	4.6%	7.4%	+ 61

Source: Colorado Health Data Commission 1986, 31-34.

* Includes profits from outpatient services.

** Net profits as percentage of total net revenues (total inpatient and outpatient revenue minus total deductions from revenue).

percent, total inpatient charges rose by 1 percent, inpatient charges per day rose by 23 percent, total net revenue (including outpatient services) rose by 8 percent, and total net profits rose by 7.4 percent. Clearly, in Colorado, the money and real-resource flows in health care each went their own way.

To sum up at this point: The link between the *financial* resources made available to a health care sector and the *real* health care resources that sector makes available to patients is actually quite loose. That link may be thought of as the lifestyle the providers of health services can extract from the process of caring for patients. Figuratively speaking, if the providers can somehow insist upon driving Cadillacs, then a given money budget set aside by society for the health care sector will make available to patients fewer real health services than would be available if providers could be induced somehow to make do with Chevrolets. The relation between the upper and the lower loops in figure 1 is as obviously simple, and as complex, as that.

Resolution of Conflict over Resource Allocation in Health Care

Because the economic lifestyle espoused by providers of health care so crucially affects the patient's welfare, the question arises whether

TABLE 6
 Net Pretax Practice Income of General Practitioners as a Multiple of
 Average Employee Compensation and Gross Domestic Product per
 Capita, ca. 1978

Country	Ratio of physician net income to: average employee compensation	gross domestic product per capita
West Germany (G.P.s)	4.7	7.4
United States (all M.D.s)	4.5*	6.5
(G.P.s)	3.9	5.6
Japan (all M.D.s)	3.8**	6.2
France (G.P.s)	2.8	4.5
Great Britain (G.P.s)	2.1	4.3
Italy (G.P.s)	1.8	3.8

Source: Data for Japan from Nishimura 1981, table A-4. Data for all other countries from BASYS (1986), table D.10.

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* Relatively few American physicians are general practitioners and these earn relatively low incomes. For all American physicians the ratio was 4.5 in 1975, and 4.6 in 1983.

** For Japan the numbers represent the 1975 income of all physicians.

there exists an objectively determinable "proper" relation between the two resource transfers in figure 1 and, if so, what mechanism best assures the establishment of that proper relationship?

The data in table 6, for example, suggest that the generosity of nations toward their physicians varies considerably. This raises the question whether British, Italian, and French physicians are underpaid, or American and West German physicians are overpaid, or whether both might be the case. More broadly put, the question becomes what slice of its GNP society should permit the providers of health care to claim as a reward for services rendered patients.

The Standards Set by Freely Competitive Markets

Economists are probably the only professionals who would even pretend to be able to answer the preceding question objectively. Those economists bold enough to make that pretense draw their "scientific" insights from a hypothetical world populated by well-informed, rational adults who use their initial endowments with productive resources (or with generalized purchasing power) in the production of widgets, gadgets,

gadgets, and gloobs that are traded freely among these well-informed, rational adults in a multitude of mutually beneficial exchanges. Widgets, gidgets, gadgets, and gloobs are imaginary goods or services that share one common characteristic: potential purchasers of them can always accurately assess, *ex ante*, what effect their acquisition would have on their own welfare. Furthermore, they are simple enough that potential purchasers can consistently rank alternative bundles of widgets, gidgets, gadgets, and gloobs in terms of preference.

If, in this hypothetical world, both the offerors of these commodities and their potential purchasers can freely enter the giant auction markets in which the commodities are exchanged, and public authorities make sure that individuals can freely choose to trade with whomever they please in a civilized manner, then it can be assumed that each such trade will be mutually beneficial and as such will have passed an appropriate benefit-cost test by both traders. Furthermore, it can be shown that the ultimate distribution of commodities among members of society will be *efficient* in the sense that no person can be made better off by further redistribution without making someone else worse off.

Finally, on the crucial (although much overlooked) assumption that the initial distribution of endowments with productive resources (or generalized purchasing power) among members of society before the onset of the auction has been *just* or made to be *just* through lump sum redistributions of purchasing power, one might then judge the ultimate distribution of widgets, gidgets, gadgets, and gloobs among members of society after the auction *optimal* in the sense that it is both *efficient* and *just*.

In this hypothetical world, the imagined giant auction would, of course, automatically determine the proper absolute sizes of the two resource transfers that would be the analogues of the two pipes in figure 1 above. And if the absolute sizes of the transfers are proper, then so must be their relative size, that is, the reward the providers of a particular commodity have obtained in exchange for that commodity. If, during a given period, gloobs had been in vogue, then those individuals who had chosen to specialize in the production of gloobs would obviously have been able to extract relatively large resource transfers of widgets, gidgets, or gadgets (or, simply, money) per gloob surrendered in trade. In the end, these individuals would be relatively better off than might be offerors of, say, gidgets which might have

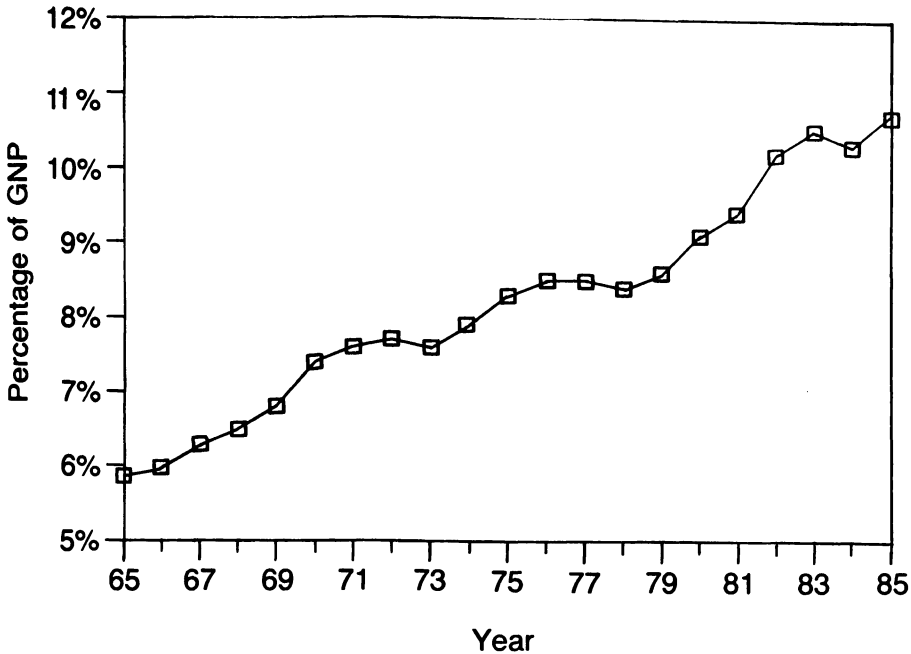


FIG. 3. U.S. National Health Expenditures (as a percentage of the GNP).
 Source: Waldo, Levit, and Lazenby, 1986.

been out of favor at the time of the auction. Such inequality in economic status in the final, optimal state would clearly not be unjust under the postulated assumptions. One might judge it objectively as "appropriate."

Arbitration in the Real World

Can this hypothetical world instruct us on the proper relation between the two transfer pipes in figure 1? In other words, is the commodity "health care" sufficiently similar to the imaginary widgets, gadgets, or gloobs to let a freely competitive market arbitrate the inevitable conflict over resource allocation inherent in the process of health care?

The answer is that what we call the "health care sector" is so varied and far-flung as to allow almost any theorist some small corner in which that theorist's preferred vision finds empirical support. For example, one can reasonably assume that the market for many of the

inputs used by health care facilities—brick and mortar, food and energy, linen services, medical supplies, and so on—also could be and often are structured competitively, as could be the markets for the health professionals employed by health care facilities (although, in fact, many of these markets are turned into labor monopolies otherwise known as “unions” whose market power enables them to extract from society economic privileges in excess of those available in a truly free market). But, clearly, a distinction must be made between the bargains health care facilities strike with the suppliers of the inputs used by these facilities, on the one hand, and the bargains these health care facilities strike with patients or insurers in the markets for the health services and products directly used by patients. For example, the owner of a medical practice (the physician) may well procure diagnostic tests from an outside laboratory in a perfectly competitive market at minimum feasible cost, but resell that test at a huge markup in a much less perfect market for physician services. The question, then, is whether the markets for these personal health services and products fit or could ever be made to fit the classical model of freely competitive markets.

Some economists—for example, the Briton Lees (1962), the American Friedman (1962) and sundry of their libertarian disciples—clearly think so. On occasion, many physicians profess to think so as well, although typically they change their mind ever so quickly when it is proposed that nonphysician health professionals be allowed to compete freely with them for patients (Reinhardt 1982), that is, that professional licensure be abolished as Friedman (1962, 158), for one, has openly advocated.

The world at large, alas, does not seem to share the libertarian's vision in this respect. At this time, literally no country seems prepared to surrender the delivery of personal health services and products completely to arbitration by unfettered market forces, not even the self-professed market devotees in the Thatcher or Reagan governments. Could it be, then, that a handful of libertarian economists have it right nevertheless and the remaining billions of people on earth simply have it wrong? Or might the obverse be more nearly the case?

To a thoughtful person, the catalogue of reasons for the world-wide aversion to unfettered market arbitration in health care will be apparent in the very description of the hypothetical world from which libertarian thinkers draw their insights.

First and foremost is the realization that, with the income distributions typical of modern societies, a free market in health care would lead to an ethically offensive distribution of health services among members of society. Although, in principle, that problem could be avoided with appropriate redistributions simply of generalized purchasing power, in fact no society appears to be willing to tolerate the implied large transfers of income, some of which might be diverted by the recipients into directions not desired by the donors. To be sure, vouchers valid only in exchange for health care could preclude such diversions. But the fact that, in a free market, well-to-do households could top off vouchers with money and thus outbid lower-income households appears to have made vouchers suspect as well. In any event, no society has so far seriously entertained the voucher-cum-free-market approach either.

There is, of course, the added, well-known problem that information about the quality of health services, and of their degree of necessity in the management of given conditions, is not symmetrically distributed between providers and patients. Worse still, the “consumers” of health care are often frightened and near-irrational when they are seriously ill and called upon to exercise choice in health care. The economist’s model of consumer choice in health care typically envisions the purchase of well-patient care by rational adults. In any given year, however, some 70 to 80 percent of health care expenditures tend to be caused by only about 10 percent of the population (Health Insurance Association of America 1981, table 5.9) who, presumably, are very ill. The data suggest that many “consumers” of health care—including, possibly, professional economists—may be much too bewildered at the time of that “consumption” to perform the sophisticated benefit-cost analyses imputed to them by classical economic theory.

Finally, even if the first two problems could be adequately dealt with, the inevitable intrusion of insurance coverage between provider and patient at point of consumption distorts the benefit-cost analysis implied by the free-market model. Because of the consumer’s weakened interest in monitoring prices and total expenditures, the latter inevitably become subject to bargaining among larger collectives.

In the end, libertarian thinkers must mature to the realization that certain ethical and political constraints in modern societies border on states of nature. Thus, it appears that, for better or for worse, many of the *real* and the *financial* resource transfers in health care will always be determined in *quasi-markets* (Herder-Dorneich 1979) in which bar-

gaining over their absolute and relative magnitude is delegated substantially from individuals to larger collectives who do their bidding within a set of both *market* and *political* constraints.

The size of the monetary transfer per unit of real-health care service transferred to patients is not the only element to be negotiated in these *quasi-markets*. Because patients cannot properly assess the medical and economic merits of proposed treatment packages and, under any form of compensation, physicians and other providers have some conflict of interest in recommending treatment packages, there needs to be a higher-level negotiation over the quantity of real services providers may properly transfer to patients, as well as external monitoring of that transfer. Put another way, not only is the lifestyle to be enjoyed by the provider in question to be negotiated in these *quasi-markets*, but also the *number* of individuals permitted to extract that lifestyle from the health care process.

Resource Allocation in Quasi-Markets

The Real-resource Transfer from Providers to Patients

Although physicians and hospitals understandably resent second-guessing of their clinical decisions, no country now seems content to entrust the transfer of real health services to patients solely to the privacy of the doctor-patient relationship. Even the ostensibly market-oriented health policy of President Reagan, for example, calls for strict external monitoring of that transfer through peer review organizations (PROs) who perform that function under government contract. The American business community, too, has come to embrace these regulatory interventions with enthusiasm. In the face of pervasive excess capacity in the American health system—a phenomenon perceived by government and business as an excess demand for health care incomes—American physicians and hospitals appear to have lost society's erstwhile trust in them.

In Great Britain the transfer of resources from providers to patients is regulated as well, but primarily by politically determined limits on the overall capacity of the health system. One suspects that, because of this externally imposed limit, there is much less need in Great Britain for the rather direct and often grating regulatory interventions

now de rigueur in American health care. In Canada and the Continental European health insurance systems, physicians and hospitals are generally bound by fixed fee schedules or per diems, but preadmission certification for hospitalized patients, second opinions, concurrent review or stringent *ex post* review of a physician's individual treatments is virtually unheard of.

Herein, then, lies an irony that ought not to escape American providers of health care. The irony is this:

The less tightly society controls the overall capacity of its health system and the economic freedom of providers to practice as they see fit and to price their services as they see fit, the more direct appears to be the private or public payer's intrusion directly into the doctor-patient relationship—the less clinical freedom at the level of treatment will payers grant the providers.

In fighting as tenaciously as they have for the principle of free enterprise in medicine, for example, American physicians seem unwittingly to have surrendered much of their clinical freedom—a freedom still enjoyed to a much greater extent by their colleagues abroad. Perhaps that trade-off was deemed worthwhile.

With abiding loyalty to both ideology and preferred analytic structure, some economists may well continue to argue that the bottom loop in figure 1 could safely be left to individual patient and provider if only society permitted patients to bear an appreciable share of the cost of their treatments at point of service. These economists, and their allies in the medical profession, could base their case on sundry multiple regression analyses that have demonstrated, rather convincingly, that the price borne by patients at point of service does tend to influence the choice whether or not to contact the medical system (Newhouse et al. 1981), although that price does not appear to induce patients to shop for low-cost providers once the decision to seek medical help has been made, nor does it seem to influence the resource intensity of hospital treatment, once the decision to seek admission to a hospital has been made (Marquis 1984).

These multiple regressions, however, represent small analytic victories at the fringe of a much greater challenge, namely, to explain with appeal to consumer-choice theory the remarkably large variations in per capita health care utilization identified by John Wennberg and his associates (Wennberg and Gittelsohn 1973). Wennberg's analyses

have shown that age-sex-adjusted utilization rates for a host of common surgical procedures—e.g., tonsillectomy, hysterectomy, or open-heart surgery—vary by factors of up to six among regions in the United States, with no discernible link to health status *ex ante* or *ex post*. So far, the only widely accepted explanation of the phenomenon has been that it reflects physicians' "preferred practice style." In the face of these data, and of their explanation so far, neither public nor private insurers can be confident any more that mere cost-sharing by patients will ever create sufficient countervailing power among patients to entrust to them and their physicians the lower pipe in figure 1. American physicians must expect that resource flow to be ever more closely monitored and regulated by outsiders as it is, however indirectly, almost everywhere else in the world.

Some of this monitoring may well result in occasional errors, and much of it may appear to physicians as externally imposed rationing. To the extent that the external review merely leads to a payer's refusal to pay for a prescribed procedure, however, the payer rations in the first instance merely the money flow to the provider.

The Money Transfer per Unit of Real Health Care Resource

Bargaining in quasi-markets over the monetary transfer per unit of real health care resources (e.g., the remuneration per physician hour) permits a wide range of alternative transfers and associated lifestyles, none of which can be judged either optimal or clearly wrong.

The generosity of the money transfer depends upon the relative number of actors to the bargaining on each side of the "market." For example, if a single buyer (really, payer) represented all patients and were in a position to pit numerous competing, independent physicians against one another, such a "market" would be apt to be less generous to physicians than one in which numerous buyers (payers) were pitted against numerous physicians, or one in which organized physicians could confront buyers (payers) with one voice. All of these settings might be called "market," yet they cannot be judged equally "fair" to all parties.

Under the British system, for example, the predominant weight of bargaining power appears to have been amassed by the government's National Health Service (NHS) which confronts providers as a monopolist (single buyer). We should not be surprised, then, that the

money transfers per unit of real health care resource in Great Britain have been pushed fairly far down toward the minimum dictated by market forces. That minimum is a transfer just large enough to attract the [politically] desired quantity of real resources into the health system. Whether this asymmetric bargain is fair to the providers of health care resources is arguable. But the algorithm does appear feasible within prevailing market constraints, because clearly the NHS has so far been able to attract whatever manpower (including physicians) and other resources it seeks.

Under the traditional American system, by contrast, the predominant bargaining power had, until very recently, rested with the providers of health services. Until the late 1970s, these providers had the luxury of transacting with myriad independent private patients and insurers none of whom had sufficient technical competence, and market power over any one provider, to bargain effectively over prices, quantity of services to be delivered, or their quality, and all of whom could thus be dealt with by providers under the banner of *Divide et Impera*. Furthermore, the political process in the United States is such that public-sector programs typically have had to adapt their terms of trade with providers to the terms worked out in the provider-dominated private sector. Consequently, the money transfers per unit of real health care resource in the United States have been high by international standards—so high, in fact, that they undoubtedly have contributed to enticing into the health sector a troublesome surplus of human and nonhuman resources eager to do well by doing good.

These handsome money transfers, however, now seem to be approaching the upper limit tolerated by private-market and political constraints. Their very size has led private and public insurers to search vigorously for increased bargaining power over these resource transfers through monopsonistic procurement practices.

How far the payers will go in this direction is anybody's guess at this time, nor is it clear how far the payers should go in this direction. In principle, for example, the Medicare program could adopt the stance of a perfect monopsonist and have both hospitals and physicians bid for its business on a fiercely competitive basis. One might call this a "market approach," although one could also debate the inherent fairness of such a "market." Large business firms, or regional coalitions of business firms and health insurers, similarly could attempt to amass strong monopsonistic (single-buyer) market power vis à vis providers.

If that were the “market” the nation had in mind when it embraced so enthusiastically the so-called “pro-competitive market strategy” early in this decade, then the providers of health care would be in for a rude shock should that strategy ever unfold (as, so far, it has not). The providers may then legitimately yearn for more formally *negotiated* money transfers within a more tranquil setting, one akin, say, to a national health insurance system, in which the bargaining process is subject to more evenly balanced countervailing power among the negotiating parties. Many other countries, including neighboring Canada, have chosen that approach.

Summary and Conclusion

The objective of this article has been to draw the spotlight onto a much neglected facet of the discussion on resource allocation in health care: the process by which society decides what lifestyle the providers of health care may extract, directly or indirectly, from the patient’s pocket book. Given the slice of the GNP society surrenders to the providers of health care collectively, the quantity of real health care resources made available to patients obviously varies inversely with the elevation of the lifestyle attained by the providers.

These reflections have been triggered by a vexing paradox plaguing contemporary American health care: incessant talk about rationing in the midst of plenty. Conference after conference in this country has been dedicated in recent years to the “agonizing choices visited upon American health care by the age of restricting resources.” Remarkably, few of the avid conference organizers, and few of their fiery orators, ever stop to think just what resource flow has actually been constricting. Has it been the supply of physicians? Has it been the supply of hospital beds? Has it been the flow of real purchasing power into the health care system? In general, the preference has been to bypass these questions altogether and to lament in a data-free context.

What has been contracting in American health care has not been the flow of money into the sector, nor the flow of professionals, facilities, and entrepreneurs seeking to do well there by doing good, but, if anything at all, the flow of real health services from providers to patients, certainly to patients who are uninsured and of modest means. And what seems required to solve the sector’s problem

is not so much an infusion of yet larger sums of money, but a decision-making algorithm capable of using the money already in the system to redirect real health care resources from persons who now receive perilously too many health services to persons who now receive perilously too few. Part of such an algorithm, of course, would be a sensible determination of the lifestyles the health care process needs to support among the providers of care.

Under the ideal circumstances envisaged by libertarian thinkers, the determination of these matters could safely be entrusted to the free market. For reasons not difficult to fathom, however, no modern society is willing to adopt that form of arbitration over resource allocation in health care. One therefore had best become accustomed to the thought that conflict over the distribution of economic privilege in health care will always be arbitrated in quasi-markets in which administrative decree and political judgment substitute in good part for the proverbial "Invisible hand." The judgments rendered in these quasi-markets will never be seen as *fair* by all concerned. But neither is conflict resolution through the invisible hand, as America's physicians and patients may soon discover, much to their chagrin. What is needed in health care, then, is an elegant algorithm for muddling through, and the realization by all concerned that muddling through elegantly would be the best of all possible worlds in that sphere. The suggestion was made that, in our search for such an algorithm, we look beyond our own borders from time to time to see what we might learn from other nations.

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