

CHAPTER 3

MY SISTER'S KEEPER: THE COMMUNITY INTEREST IN HEALTH CARE

THE SOCIAL SIGNIFICANCE OF INDIVIDUAL HEALTH STATUS

The common description of health care as a "need" -- as different from ordinary commodities for which there are wants that, when backed by willingness to pay, become demands -- conveys information about two of its characteristics. As noted in chapter 1, need refers to a special technical relationship between care and health status, accessible to an external observer. An expert evaluation of A's health status by B gives rise to B's judgement that A "needs" care, that utilization of specific forms of care would raise A's health status, and while this judgement may not command universal agreement, it is in a form communicable to C, D, and so on. Nor does its validity depend on A's agreement. By contrast, the value to A of commodities in general, or health status in particular, is knowledge privileged to A which B and others, however expert, can only infer by observing A's statements or actions, or by analogy from their own or others' experience in similar situations.

But "need" also carries significant ethical overtones; its allegation asserts an obligation on others. The statement that A needs care, which gains credibility if made by an expert and disinterested B, implies that A, or someone in A's family, or A's community, *ought* to do something. A's want for a particular commodity is, by contrast, neutral. The statement "Oh Lord, I *need* a Mercedes-Benz!" is a joke. "Oh Lord, I need a coronary artery by-pass graft!" is not.

But this more general social significance of health care utilization depends on its being needed in the technical sense as well. Only care which is perceived as effective in preventing or restoring deteriorations in someone's health status is a "need" in the second, obligational sense. If A asserts a desire for care which expert B judges unnecessary in the technical sense, then C, D, *et al.* will not, in general, feel any obligation to respond.

The health status of an individual thus takes on a special importance to the rest of the community beyond that of her consumption in general, but similar to that of political or judicial status. "One person, one vote" is a firmly established principle, and while no one denies that money buys political influence, it is not lawful actually to buy and sell votes. Indeed in some societies exercise of the vote is a legal duty. Similarly access to justice is supposed to be available to all, regardless of ability to pay. "To no man will we sell, deny, or delay justice," it is said in Magna Carta. And though, again, the courts respond to the long purse, there is a fundamental principle that justice is not a commodity to be bought and sold like any other. When it is, it is not justice.

Such special status derives from a general perception that life, health, and freedom are not ordinary commodities, but are prerequisites to the enjoyment of all others. Maximizing one's utility across a consumption bundle remains possible if one is in hospital or prison, or disabled (though not, presumably, if dead), but there is a marked shift in the whole quality of life, a sharp discontinuity in the domain of the maximand. And since, as Colonel Rainborough put it, "The poorest he that is in England hath a life to live as the greatest he," assurance of the preconditions

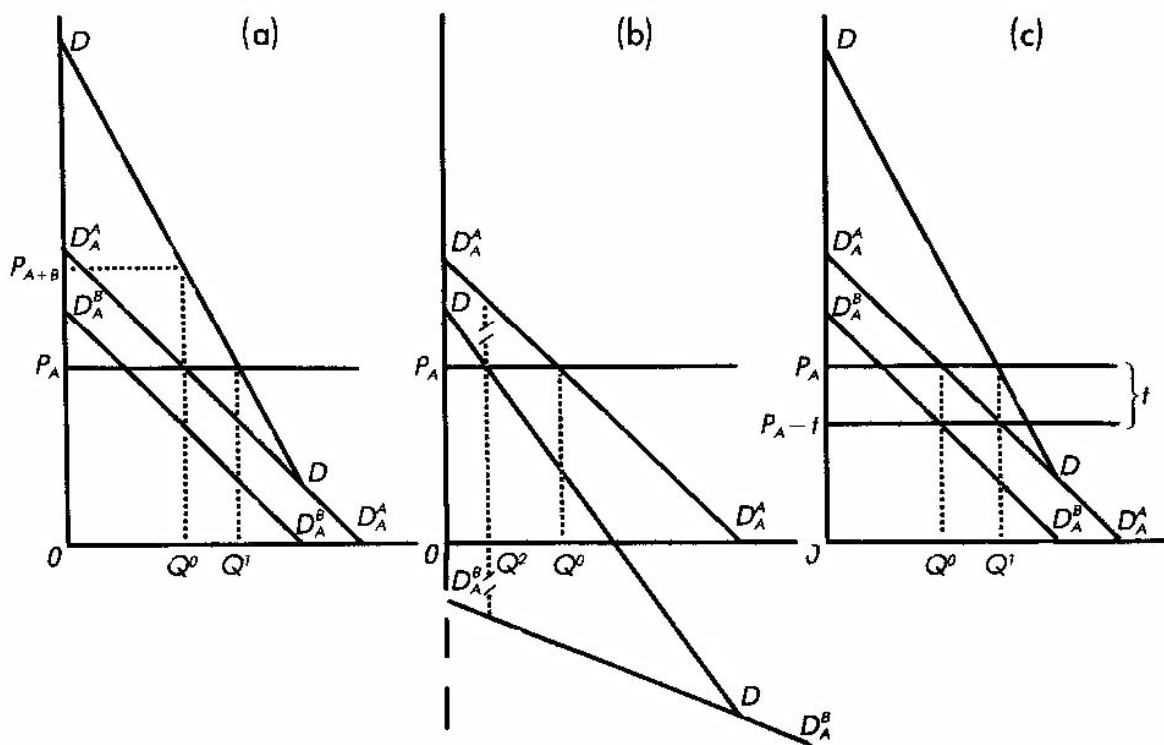
of living this life becomes a basic right. When threatened, such preconditions are normally defended, not in the market, but in the political arena, and not infrequently by force of arms.¹

MODELLING THE INTERPERSONAL RELATIONSHIP

This aspect of the concept of need can be brought within economic analysis through the concept of external effects, or externalities, in consumption. The use of a commodity, in this case health care, by one individual may have positive or negative effects on the well-being of some other or others. In such a situation, private market mechanisms of resource allocation fail in the sense that they lead to under- or over-provision of the commodity in question. There is no market in which those affected by the primary consumer's consumption can register their preferences.²

The resulting underprovision, in the case of positive externalities, is shown for the case of two individuals in Figure 3-1, panel (a) (Culyer 1971). A particular commodity Q , say health care, is valued by A; $D^A_A D^A_A$ represents her demand for it. If the price charged to her is P_A , then she will choose to buy Q° units of care. But B also has an interest in A's use of care, represented by $D^B_A D^B_A$. This represents B's willingness to pay A for care *for A*, not B's own demand for care. Thus, the total value to A and B together of care for A is represented by the vertical sum of $D^A_A D^A_A$ and $D^B_A D^B_A$, or DD . If A makes her decisions as to care consumption A without reference to B's interests, then at price P_A and output Q° , the value of the last unit purchased of Q to A is equal to or greater than P_A , and of the next (not purchased) is less than P_A . But its total value to society (A and B) is P_{A+B} . Assuming P_A represents the real resource cost of producing care, its opportunity cost in terms of other things foregone, then at Q° the value of one more unit of Q to society exceeds its resource cost. Its production should be expanded, to Q' , at which point the value to A and B together of the last unit of care used by A just equals its resource cost.

FIGURE 3-1
Market, and Optimal, Levels of Provision of Care to an Individual in the Presence of
Consumption Externalities



If, on the other hand, care received by A were viewed negatively by B, then B would require compensation for A's receipt of care. Care to A would involve both resource costs and the cost of loss of welfare to B.³

This possibility is shown in panel (b) of Figure 3-1, where $D_A^B D_A^A$ lies below the zero-price axis. The sum DD now lies inside $D_A^A D_A^A$, and the socially optimal level of provision of care for A is now Q^0 where the value which A places on her last unit of consumption just balances its opportunity cost in resources used up, *plus* the additional distress it causes B. The private market will lead to an excessive supply to, and utilization of, care by A.

Economists studying health care have traditionally assumed a priori that the external effects involved were positive, pointing particularly to contagious diseases and immunization. It is quite clear that A's decision to seek immunization, or to accept care and isolation if ill with a contagious disease, reduces B's probability of becoming ill. There has been rather less attention given to the negative externalities associated with, *e.g.*, extensive use of antibiotics; A's use raising the probability of B's encountering a resistant strain.⁴

This may be because the conventional response to the private market underprovision of a commodity with positive externalities is some form of subsidy⁵ to reduce the price paid by users below its resource cost. Panel (c), Figure 3-1, replicates panel (a), and includes a public subsidy of $\$t$ per unit (raised through taxes) paid to buyers of care. A now confronts a price in the market of $P_A - t$. At this price, she will choose to consume Q^1 , which is just the amount at which the marginal resource cost of care equals its value to both A and B. The information required to determine the optimal t yielding this result may be substantial. In particular, however, the optimal t need not equal P^0 . Externalities do not necessarily justify "free" care; the optimal

subsidy might be less than P^0 , as it is in Figure 3-1c. Or it could be greater. Abstracting from problems of false reporting, we might in the presence of strong externalities (many and/or strongly concerned B's) not only provide "free" care, but pay A to use it.

In the case of activities with negative externalities, however, the subsidy becomes a tax. If antibiotic use raises the rate of development of resistant strains, imposing costs on others, then optimal use achieved through the market mechanism requires a tax of $\$t$ per unit on antibiotics such that A's consumption decisions will reflect the costs imposed on B. The average non-economist, confronted with the proposition that efficient resource allocation requires such a tax, would have strong reservations about the validity of the analysis. And rightly so, because the treatment of external effects in this framework, while technically correct, is seriously incomplete.

EXTENDING THE RANGE OF EXTERNALITIES

In the first place, the contagion issue is now a relatively minor part of health care activity. That is not to say it is unimportant in the broader scheme of things. Control of contagious diseases through improvements in sanitation, nutrition, and health care have clearly added enormously to our well-being, lengthening and improving the quality of life. But they no longer account for a major share of the resources of the health care industry, at least in developed countries. In 1981-82, for example, infectious and parasitic diseases in British Columbia accounted for 1.4 percent of cases separated from hospitals, and 1.3 percent of patient-days. Another 8.8 percent of cases and 6.3 percent of days were for diseases of the respiratory system, many but by no means all contagious (British Columbia, Ministry of Health n.d. (*i.e.* 1983)). In total, contagious illness probably accounts for about 5 percent of hospital use and significantly less than 5 percent of costs. Its share of ambulatory medical costs may be somewhat higher, of in-hospital medical costs, substantially lower. Thus an explanation of the present structure of health care delivery and financing as a response to the external effects of contagion represents the tail wagging the dog.

Of course, historically, contagion has been a much more important phenomenon. But it has been dealt with directly through public health services, by a combination of regulation and direct public sector delivery, not through the general medical care system. Rather than subsidizing A's acceptance of immunization, most societies provide it free, on a mass basis in schools or public health clinics, and in certain circumstances (sensitive occupations, foreign travel) require it by law. Formerly, if A became ill, quarantine enforced isolation (with or without other care) to protect B, and was backed up by legal penalties, not taxes or subsidies. Sanitation likewise is enforced by regulation: "The Common Law of England does not recognize a prescriptive right to remain dirty."

The boundaries between public health services and the general health care system are currently rather contentious, and may well be in flux, for reasons which we will address below. The point to recognize, however, is that such boundaries do exist. The primary social response to the external effects of contagion, and the associated needs for prevention or care, has been public provision and regulation for that particular sector alone.

The social or public interest in health care, however, goes well beyond contagion. As reflected in public discussions of health care delivery, it emphasizes access to care for those in need as an end in itself, not merely as a way of protecting the rest of the community. The public health insurance program was intended not only to spread the economic burden of care more equitably, to transfer financial resources from low to high users of care or from low-risk to high-

risk buyers of insurance, but also to lower the barriers to ("needed") care. Health care use was subsidized in order to increase utilization by some, at least, of the population. The general social interest in use of health care by private individuals was strong enough that the community were prepared to tax themselves to subsidize this use.

But public insurance is only one of several forms of subsidy to health care. Public funds contribute extensively to capital formation, both human and non-human, in this industry. The costs of training health care personnel are largely borne by government; this is true of all post-secondary education, but since health care personnel are more expensive to train, the size of the subsidy per trainee is larger than for post-secondary students generally. Hospital capital -- buildings and equipment -- is predominantly financed by government, as is a large share of health care research. And private voluntary organizations mobilize collective resources to fund individual treatments of particular types.

All such subsidies, whether to increase the capacity of the health care system -- people and facilities -- or to lower the costs faced by users, can be described as efforts to improve access to services, rather than providing for their direct delivery or mandating their use. Access in the positive sense is rather difficult to define or measure, but in the negative sense, barriers to access are readily identifiable and of many different forms. Economic barriers, direct charges to users of care at point of service or otherwise related to use, are the most obvious; it is these which are reduced or eliminated by universal public insurance. But geographic or social distance between provider and user, rigidities in the organization of supply, or simple capacity inadequate to meet needs, all represent additional barriers which are addressed by other types of public policy, usually including some form of subsidy (Evans 1978). The whole area of educational and manpower planning for health care, and the concomitant public concern for an appropriate geographic distribution of services, are evidence of the sense of a social or public responsibility to assure access. And this concern is separate from the public insurance program itself, as is evidenced by governmental concerns over the mal-distribution of dentists, for whose services public coverage is only partial and province-specific. The same issues arise in the United States, where universal public health insurance has become a rather remote possibility, at least in the near term.

The impact of Canada's public programs on utilization patterns, as opposed to overall levels, has been significant. In the early 1950s utilization of care varied directly with income. *The Canadian Sickness Survey* showed that low-income persons experienced substantially more illness and disability than medium- and upper-income persons. They received less care, however, and the differences were particularly striking when care use was measured relative to days of disability. Low-income people received just over half as many physician visits and operations per disability day as the average person surveyed, upper-income people received about a third more. Differences in hospital use were less pronounced, but still significant (Canada, Department of National Health and Welfare and Dominion Bureau of Statistics 1960).

Studies of the introduction of public medical insurance, in particular, have shown that its effect was generally to remove the influence of income on utilization patterns, and to redistribute care from upper- to lower-income groups. Whether it also raised overall utilization levels, or whether these are more a function of overall levels of health system capacity, personnel, and facilities, is a more difficult issue which we shall try to deal with below. But the redistributive effect of public insurance seems well established. In fact there is now a clear tendency for utilization to be negatively related to income, and students of the issue have concluded that this is not the result of differences in the "price of time" or any other indirect price effects, but simply that poor people are sicker (Boulet and Henderson 1979; Broyles *et al.* 1983). Public health insurance does appear to have changed the distribution of health care utilization away from its

previous relation to income, and closer to some external standard of medical need, which was its principal announced objective.

The fact that the public program was declared to have this objective, that it appears to have met it, or at least moved a great distance toward it, and that there is widespread and general satisfaction with this result, supports the proposition that the community at large feels an interest in the consumption of *needed* health care by individuals. To express this relationship in the language of external effects, we must draw some distinctions as to the nature of these effects. In making such distinctions, the relationship between health status and health care which we have emphasized throughout will be of considerable assistance.

ALTERNATIVE FORMS OF INTERPERSONAL EFFECTS

There appear to be three different types of externalities which may underlie B's interest in A's health care, the selfish, the altruistic, and the paternalistic.⁶ Selfish externalities are expressed in the case of contagious diseases. In this case, B (or the rest of society) has no interest in A for her own sake, but only insofar as her status or behaviour affects B's *health*. For technical reasons, contagion, A's health status affects B's health status, and B cares about her own health. Thus insofar as A's care affects A's health status, it also affects that of B. The community interest in A's care, then, is restricted to those forms of care which are effective in improving A's health status in those particular dimensions which affect B's health. A's attitude toward the care she is to receive is of no interest to B. In fact, isolation, quarantine, or driving A out of the community might serve as well; hence the selfish aspect of the external effect relationship. As noted, the actual social response to contagion has been consistent with the existence of this sort of relationship; public health policies toward contagious disease have not historically depended solely or principally on the consent of the ill. But this form of external effect, or relationship between one person's use of health care and another's well-being, does not serve to explain the extensive public interventions we observe in the financing of health care.

The second form of interaction, the purely altruistic, is present when B's interest in A's health care arises from a more general concern of B for A's well-being. We might postulate that B derives satisfaction from seeing A happy, and suffers along with A -- Adam Smith's concept of sympathy (Collard 1978).

This framework, however, is also inadequate to explain the actual institutions and the cross-subsidies which we observe, not just in Canada, but virtually universally. The altruistic form of externality is not specific to any particular type of commodity or source of satisfactions. If B is really interested in A's well-being, however attained, she should strictly respect A's preferences, and be as willing to subsidize gin as penicillin, if that is what A wants. And the criteria for subsidy will be A's preferences, regardless of the effectiveness of the care received or the harm done by the gin (or vice-versa). Thus altruistic externalities lead to progressive income taxes and welfare or public assistance schemes, which transfer wealth to particular deserving A's but leave their use of it unrestricted. It is a standard exercise in elementary economic theory to demonstrate that any given augmentation of well-being for a recipient A can be achieved by a smaller transfer of resources if it is through an income transfer than if it is by subsidy of a particular commodity.⁷ If B's interest is in A's well-being, the implication is that B should give A money. This argument underlies some advocacy of negative income taxes as a cheaper and more effective form of assistance, substituting for various categorical and commodity-specific social programs -- like public health insurance.

The argument from altruistic externalities to cash transfers rather than commodity subsidies does, however, have a serious gap in the case of health insurance and health care. B's interest in A's well-being, when expressed through a program which subsidizes health care use, responds to fluctuations in A's well-being which arise from changes in health status. A general negative income tax, or cash transfer program from rich to poor, does not. Thus an altruistic society might very well choose to subsidize health care as a partial compensation for differences in well-being which arise, not from income or wealth differences, but from health status differences. Ideally, the compensation would be directly associated with health status, not linked to it indirectly through health care use. But, as noted above, it is generally impractical for a public agency or insurer to monitor health status directly. Care use is taken as a signal for poor health.

Of course, people can always buy insurance. Thus one might argue that, if instead of subsidizing health care a society redistributes income, formerly poor people can then choose to buy health insurance, or not, as they see fit. But in the first place this presumes a more-or-less smoothly functioning insurance market, which, as we have seen above, is least likely to exist for the poor, elderly, and high-risk groups most likely to need care. Secondly, even if such a market existed, high-risk people would still have to pay higher premiums. Thus the cash transfer which expresses collective B's interest in individual A's welfare would have to be related to A's *ex ante* expectation of illness, or at least of health care use, or else significant inequalities would remain among A's at similar money income levels (after adjustment). Indeed the costs of fair insurance for some particular chronically ill A's could easily exceed the total amount which society was prepared to transfer to each individual A for income support. In the presence of large variations in expected health care use, general income transfers plus even the fairest of insurance cannot substitute for a direct subsidy program.⁸

Such a direct subsidy could, in principle, take the form of an attempt, as part of the income transfer system, to estimate each individual's risk status *ex ante* and adjust her income tax/transfer position accordingly.⁹ Alternatively, and more realistically, it could be based on the risk-evaluation process in private insurance markets. Each person's premiums, for a standard form of coverage, could be determined in that market, and a tax-financed subsidy would then be paid, not necessarily contingent on actual purchase of insurance, to people in high-risk categories. In effect, such premiums would be deducted from income in computing relative income for the general redistribution program. This of course presupposes efficient and fully informed insurance markets. In practice such a system would be very expensive, unreliable, and inaccurate for those who need it most. It would also be a source of substantial increases in insurance overhead costs, *i.e.*, revenues for the private insurance industry.

Finally, of course, there is the "bleeding cheat" problem (Archibald and Donaldson 1976). Income is transferred, but recipients spend it on gin, not health insurance. Some become ill, a few gravely so. If society is not prepared to let them die, then *ex post* a further subsidy will be paid. In Canada at least, and we suspect in most other developed societies, improvident A's would not be denied needed care, at least not life-saving care. Knowing this, why should A's receiving income transfers purchase insurance?

The practical inadequacies of income transfer plus insurance schemes indicate that direct subsidy of health care use could be a second-best response to purely altruistic, non-paternalistic relationships among the members of a community. The Canadian approach, of financing care costs from tax revenues plus (in some provinces) compulsory "premiums" unrelated to risk status, serves to redistribute a substantial amount of wealth from low- to high-risk persons, as well as (like any insurance program), from well to ill.¹⁰ This transfer, which is independent of any effect of the public insurance program on levels of utilization, is consistent with the altruistic, non-paternalistic form of external effects.

But consideration of community attitudes towards gin and penicillin suggests that the externalities are in fact paternalistic, rather than altruistic. Health care is what the public finance literature calls a "merit good" -- society in general feels that individuals in particular circumstances ought to use it -- as opposed to alcohol, which is a demerit good, and taxed. But public responsiveness to concerns over frivolous use and unnecessary care, whatever the source of payment for such care, suggests that it is only effective, needed care which is the merit good. The social interest is in A's health status, and in her health care use only insofar as it contributes to that. Indeed, Canada's medical insurance program provides reimbursement only for "medically necessary" services.¹¹

POLICY RESPONSES TO EXTERNAL EFFECTS

If society's, or other individual B's, preferences display this paternalistic (or perhaps maternalistic) characteristic, as it appears that they do, then optimal allocation of resources to health care production and use will require some sort of social program to subsidize and expand this output beyond private market levels. The beneficiaries of such transfers may be less well off than they would be with a straight cash transfer conditional on illness (they might prefer the gin), but the payers of the subsidy will be happier.¹² The form this subsidy should take, however, is not determined by the existence of the external effects themselves. The strengths and weaknesses of alternative institutional approaches can only be analysed in the context of the other peculiarities and sources of market failure intrinsic to the commodity, health care.

The range of possible alternatives is in fact two-dimensional, running from completely public provision, to completely private, with variable degrees of public subsidy in both insurance and care markets. A completely nationalized health service, along the lines of the British National Health Service, represents public insurance and public provision; the state bears risks and delivers care. In the United States, most of both the insurance and the provision functions are in the private sector, at least superficially. But large public sector subsidies flow to different groups in many different ways. The Veterans' Administration provides both public insurance and public delivery to its eligible population. The tax system provides public subsidy to both private insurance purchase and, above a threshold, private care use, in amounts which increase with income level. Medicare for the elderly and Medicaid for the poor involve private delivery, and a mix of predominantly public with some private insurance. The functions of insurance administration are contracted to the private sector, while the public sector bears the risks and subsidizes the costs. Those who qualify for subsidy neither by age, nor by poverty, nor by special status or special illness, may receive no assistance at all.

In Canada, the insurance function is public for hospital and medical care, and part of dental and pharmaceutical. Subsidies flow through tax plus uniform premium finance of hospital and medical care, with insignificant out-of-pocket charges. Dental and pharmaceutical costs are subsidized for children, the elderly, and the poor, in amounts varying from province to province. Most provide a subsidized public insurance program for private delivery; Saskatchewan and Prince Edward Island provide direct dental care delivery for children.

In form, the hospital and medical care delivery systems are private and contract with the public insurance program to provide care at specified rates of reimbursement. In practice, however, the monopsonistic power of the public programs in hospital and medical care has been used to exert significant influence on the delivery system to the point that hospitals, at least, can no longer be thought of as purely private sector institutions. Unlike their American counterparts,

they occupy a middle ground between public agencies and private "firms," with entrepreneurial decision-making power fragmented between hospital managements themselves, governments, and private physicians. Physicians are farther toward the private contractor end of the spectrum, and dentists even more so.

If external effects in consumption were the only source of market failure in health care, the form of the public subsidy to individual use would not be a significant issue. A health care market supplied by private, for-profit firms, competitive in pricing, with free, unlicensed entry, and unregulated as to choice of technique, would, according to conventional economic theory, be marketing its products at minimum cost. Fully informed buyers would select the care which was of most value to them, relative to the prices they were required to pay. Since private sector delivery would be both technically efficient and price-competitive, it would make care available at a price equal to its marginal resource cost ($P = MC$, as in Figure 3-1 or 2-2), so there would be no particular advantage in public sector provision. Indeed, the absence of competition, plus bureaucratic regulation, might be expected to make public sector provision more costly and less efficient. By a similar argument, and ignoring the problems of market failure in insurance markets, it would appear that the risk-bearing and premium/claims administration functions would be best carried out in the competitive and efficient private sector. The public response to externalities in consumption could then be restricted to subsidizing (partially or fully) health insurance premiums for those whose income levels and/or expected health care use were such that they could not pay for private insurance, at all, or without undue sacrifice, and to subsidizing and/or mandating the use of specific services which were of particular significance to the rest of society (immunizations, *e.g.*, or the care of children).

A few additional problems would remain, of course. In view of the "bleeding cheat" problem, minimal coverage would have to be mandatory for everyone. Secondly, the community interest only in effective care would have to be reconciled with individual interests, which might be broader. We have argued above that rational individuals attach negative value to health care *per se*, and value positively only its health status benefits, but care believed effective clearly also has an amenity dimension. Thus, the mandated and subsidized care would have to be restricted, insofar as possible, to the care which, when received by individual A's, was perceived by collective B's as effective and of an appropriate amenity standard.

This, however, opens up a serious issue of the moral hazard variety. Suppose the relationship of health care to health status takes the form of Figure 1-3, panel (b). The payoff to more care is always positive, but declines as care increases. Collective B's cannot then undertake to subsidize *all* effective care for individual A's, but must somehow impose a cut-off point at which further effect is judged not worth the cost to society. Schemes for the public subsidy of private insurance and delivery envision this as taking place through more or less sophisticated systems of patient cost-sharing; the mandated and subsidized minimal insurance policy would embody such provisions to limit patient/consumer-initiated moral hazard and to ensure that the public subsidy commitment was not open-ended. Thus access to social resources (insurance funds plus public subsidy) would be conditional on individual willingness-to-pay, which, in turn, would require cost-sharing to be carefully matched to individual resources if it were not to discriminate against lower-income people, not only in utilization of care, but in access to financial subsidy as well.

A program of direct public provision, by contrast, can limit utilization by direct rationing without a structure of patient cost-sharing. The limitations on individual A's access to collective resources are imposed by refusal to provide, either directly or, more commonly, in the form of restrictions on available personnel and facilities. Both the British National Health Service and the Canadian public insurance program do this; the latter as a monopsony buyer of care can

determine the terms on which suppliers will be reimbursed, as well as (for hospitals) providing capital by direct grant. The public agency thus determines the amount of hospital space and facilities available; its influence over manpower is more problematic.

SUBSIDY POLICY IN THE CONTEXT OF INFORMATIONAL ASYMMETRY

Proposals for a minimal public program, of subsidy to or supplementation of private insurance, were made by the private insurance industry and the medical associations to the Royal Commission on Health Services before the Canadian Medicare system was introduced. They were also brought forward before the United States enacted Medicare, and remain an important component of the periodic American debates over national health insurance. They have also been attractive to some Canadian provincial governments wishing to enter the dental insurance field on a small scale, and at minimum risk. The Report of the Hall Commission, and the actual health insurance programs developed in Canada, represent a decisive rejection of this approach, but proposals for modifications to the present system along such lines continue to surface regularly from the medical community, with the details rather fuzzy.

The weakness of such proposals is not that they are illogical, but that they are incomplete. They rest on the assumption that health care is in fact a commodity like any other, except for its peculiar interpersonal significance, and its uncertainty of incidence. If the supply side of the market were as described above, offering care at a price more or less corresponding to its marginal resource cost, and if buyers were sufficiently informed as to make their own consumption choices, then a good case could be made for public subsidy of private insurance, with perhaps some additional institutional modifications to deal with the problems of incompleteness in private insurance markets. Externalities per se do not support Canada's rejection of this approach; and while the universal public insurance program does respond to specific identifiable failures in private insurance markets, it is rather a massive response.

But the supply side of the health care market is not perfectly competitive. It is shot through with all sorts of institutional restrictions on entry to the market and on conduct in it. Licensure has been the traditional mode of restricting entry; to this has now been added the attainment of approval for reimbursement. Self-regulation, backed up by threat of de-licensure, is used to regulate conduct, in particular competitive behaviour. Not-for-profit motivation dominates in the hospital sector. And so on. If the sole peculiarities of health care were uncertainty and external effects, *none* of the regulations on the supply side would be justified. Insurers, public or private, might still wish to use disinterested experts to certify the health status of claimants for reimbursement, and consumer/patients who felt themselves inadequately informed might also prefer care from certified suppliers.¹³ But all this would be voluntary. There is no justification, in the discussion of either of the two previous chapters, for the extensive network of direct and "self"-regulation which surrounds the supply of health care.

The existence of such a web of regulation, then, raises two types of questions. First, to what extent can it be justified, if at all, by intrinsic peculiarities of health care as a commodity? And second, to what extent is the analysis of the effects of, and appropriate responses to, uncertainty and external effects modified by either these additional peculiarities, or the very existence of the regulatory structure itself, however justified?

In this respect, some of the right-wing critiques of health care delivery in the United States are intellectually quite consistent. They argue that the regulation of the supply side is not, in fact, justified in terms of market failure, and that its effects on the delivery, and costs, of health care

are harmful and profound. They then argue for massive deregulation of health care, including removal of all licensure or other restraints on entry and conduct, along with, or before, specific (minimal) policies to deal with uncertainty or external effects. Considering the range of vested interests threatened by such a strategy, as well as the implausibility of its underlying assumptions, its political feasibility is probably minimal. But it *is* honest.

What is *not* consistent, or honest, is simply to ignore the whole question of the organization of health care delivery, and to analyse and propose policies for insurance markets and public subsidy programs as if this organization were indistinguishable from purely private, competitive industries. To assume, as in Figure 2-2 or 3-1, that the market price of health care in the absence of subsidy equals its marginal resource cost, is to assume either that the regulatory structure does not exist, or that it is without effect. Neither assumption seems defensible. Further, to assume a demand curve which defines the utilization responses of consumers to prices of care, independently of any influence by suppliers, and to use these hypothesized responses as a basis for policy evaluation, is to assume away the problem of imperfect patient/consumer information which, rightly or wrongly, forms the primary argument for regulation of the supply side.

Suppose, however, that one is unable to accept the assumptions both that imperfect information is not a serious problem for patient/consumers of health care, and that the elaborate professional/regulatory structure which purports to address this problem is either, despite appearances, not really there, or else is without influence on the prices, quantities, qualities, and types of health care offered. Then the argument for a restriction of public intervention to subsidy and supplementation of private insurance against expenditures on privately provided health care falls to the ground. Of course, a corresponding argument for either universal public health insurance or a national health service does not necessarily rise from the ruins. Rather, we must proceed to explore the implications of this imperfect information, and of the institutional responses to it, which make the organization and delivery of health care so unusual relative to other commodities. We shall find that one cannot begin to understand the utilization of health care without consideration of the conditions of its provision. The converse is also true.¹⁴

NOTES

¹ Of course, in extreme situations, food, shelter, and other necessities of life take on similar significance, as in the case of rationing under siege. It may be that the prevalence of violence and crime in the U.S. can be interpreted as a disorganized form of taking up arms in defense of perceived preconditions of life.

² If such a market could be developed, then conceivably bargaining between the parties concerned could lead to an "efficient" level of consumption by all concerned. But the informational conditions under which this is possible are so severe as to make this theoretical possibility irrelevant in general (Cooter 1982).

³ For convenience, we assume marginal utilities of income constant in the relevant ranges.

⁴ This form of externality arises because A's activity has a direct effect on B's well-being. In the presence of either public or private health care insurance, A's activity also has financial implications for B. A's bills are paid from B's premiums/taxes. This problem does not arise in a "pure" insurance system, in which each participant pays according to her risk status and is unable to affect her own expected loss. In reality insurance plans *do* build in cross-subsidies, in part, as we shall suggest below, in response to direct external effects of the sort described here. And as a result of imperfect risk rating and "moral hazard," B's well-being will indeed be reduced by A's use of care/generation of expense. If the care is effective, however, and if B has an interest in A's health, the net effect may be positive. But A's use of ineffective care harms B as well.

⁵ In the two-person case, of course, B could subsidize A directly or A could compensate B, depending on the prior legal assignment of property rights. But if the relevant B's are numerous and difficult to identify, this may be impossible. A tax-financed subsidy of the price for care paid by A achieves the desired result.

⁶ Formally, the utility or welfare of B, U_B , is a function of the health care received by A, HC_A . In the selfish case, $U_B = U_B\{HS_B[HS_A(HC_A)]\}$. A's health care affects A's health status, HS_A , which affects B's health status, HS_B (via contagion), which affects B's well-being. In the altruistic case, $U_B = U_B\{U_A[HS_A(HC_A)]\}$, B's welfare depends directly on A's welfare, which in turn depends *inter alia* on A's health and thereby A's health care. In the paternalistic case, B's well-being may depend directly on A's health care, but more plausibly, as discussed below, on A's health status, $U_B = U_B[HS_A(HC_A)]$, and thus on A's health care. For a more extensive discussion see Culyer and Simpson (1980).

⁷ *Ceteris paribus*, holding prices fixed, no work-leisure trade-off, and no after-markets in the commodity. Relax these assumptions, and predictions become both less secure and more complex, but the general principle is maintained.

⁸ In practice, of course, direct subsidies have the significant additional advantage that they may in fact be provided. Those who oppose direct subsidy or provision of specific commodities on the ground that hypothetical income transfers would in principle be superior, rarely advocate such transfers with equal energy. And a *de facto* policy of "do nothing" has no a priori support.

⁹ Even if a redistribution program is sufficiently sensitive to take account of differences in risk status as well as in income or wealth position, it turns out that a policy of non-paternalistic wealth redistribution plus subsequent purchase of actuarially fair insurance by perfectly informed, rational customers is still not socially optimal in general. As Hammond (1982, 1983) demonstrates, redistribution which maximizes a social welfare function defined over *ex ante* individually maximized expected utilities will not maximize the expected value of the same social welfare function defined over *ex post* individual utility outcomes, except under very restrictive and implausible conditions. *Ex ante* and *ex post* optimality conditions are simply inconsistent, and neither has ethical priority in principle. In practice, given the severe informational deficiencies of "markets" for both health insurance and health care, we find the *ex post* criteria more compelling.

¹⁰ The trouble and cost of identifying risk status explicitly (or the unfairness of ignoring it!) in general transfer policy is saved at the cost of denying consumers free choice of insurance coverage. Most Canadians seem to think the price acceptable.

¹¹ In practice, a physician's submission of a claim is generally accepted as evidence of necessity, so that if the physician feels the utilization was unnecessary or "frivolous," she ought, according to the Act, to bill the patient, not the insurance program, for the full cost of the service. Therefore, any physician who argues that unnecessary and "frivolous" use is widespread, whether initiated by patients or promoted by physicians, is implicitly accusing her colleagues of (or confessing to) fraud. The provider who billed a public plan for such care thereby attested to its medical necessity.

¹² These should not necessarily be thought of as two separate classes of people. I may well prefer complete discretion over my own care, but feel paternalistic about yours, and vice-versa.

¹³ Certification is an authoritative statement, perhaps by a public body, that a provider has completed certain training or displayed certain abilities. But uncertified providers are free to offer services, if they can find a market. Licensure prohibits unlicensed providers from offering services.

¹⁴ What is surprising, and depressing, is that so many analyses of health care utilization, particularly by economists, have addressed problems of optimal insurance design and/or response to externalities, in complete disregard of the structure of supply. Worse, they have brought forward the results as policy recommendations. It is quite understandable that representatives of the private insurance industry, or of medical associations, should attempt to assume away any problems of technical efficiency, of completeness, or of price formation in their respective markets. They have a well-defined economic interest in doing so. But economists should know better.