Information and Incentives: Peculiarities of the Health Care Market

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By any conventional indicator of industrial performance, the Canadian health industry during the past two decades has been a howling success. In terms of sales growth, profits,[1] employment, and investment in new capital equipment or more highly trained manpower, the industry has been booming in every province and every year. From 1957 to 1969 aggregate spending on personal health care in Canada rose by over 10% in every year but 1962 (the Saskatchewan strike). Table I gives a quick overview of the behaviour of the major health care spending components.[2] Yet in spite of this impressive growth performance Canadian health care is considered to be in a state of endemic crisis; and the industry is beset within and without by reformers and researchers, task forces and Commissions, all urging varying degrees of structural overhaul. And the very data on sales growth given in Table I, relabelled as escalating health care costs, are one major cause of concern. Clearly there are peculiar features of this industry which lead us to apply different sorts of criteria to its performance, and in this paper I shall try to outline what I feel are the major structural differences between the production and sale of health-related goods and services[3] and the production of, say, shoes. These struc-

1 "Profits" are not always clearly defined in an industry where many firms are either self-employed businessmen or not-for-profit institutions. The net incomes of the former and the surpluses of revenue over expense of the latter, however, make it clear that ethical drug firms are not the only beneficiaries in this booming market. References are Canada, Department of National Health and Welfare, *Earnings of Physicians in Canada, 1957-1968* Health Care Series #25 (Ottawa, June 1970) and *Earnings of Dentists in Canada, 1959-68,* Health Care Series # 26 (Ottawa, September 1970). Also, Dominion Bureau of Statistics, *Canadian Statistical Review,* Table 1.7 any recent month gives data on the net surplus and investment position of the hospital sector.

2 "Personal health care" excludes a number of health-related goods and services such as chiropractors, osteopaths, private nurses, optometrists, podiatrists, eyeglasses and appliances, all non-prescription drugs, public health services, nursing home care, all new construction, and health education and research outside hospitals. Thus total health-related spending is probably 10%-15% higher than the Table I figure.

3 We do not know how health is produced, or even exactly what it is. (The World Health Organization definition of complete mental, physical, and social well-being is obviously too utopian to be interesting.) But we do know that health depends on many things other than health industry output, which may indeed be more important.

TABLE I

THE GROWTH OF PERSONAL HEALTH EXPENDITURES IN CANADA, 1957-1969

	(1) *Hospital Services*	(2) *General and Allied Special Hospital Services*	(3) *Physicians*	(4) *Dentists*	(5) *Prescription Drugs*	(6) *Total*
Total Expenditure			($000,000)			
1957	587.4	429.9	271.8	85.0	103.2	1047.4
1969	2475.9	1999.6	910.0	231.5	270.1	3887.6
% increase	321.5 %	365.1 %	234.8 %	172.4 %	161.7 %	271.6 %
Expenditure per capita			($)			
1957	35.24	25.37	16.31	5.10	6.19	62.81
1969	117.40	94.82	43.15	10.97	12.81	184.34
% increase	233.1 %	273.7 %	164.6 %	115.1 %	106.9 %	193.5 %
Expenditure as % of Personal Income			(%)			
1957	2.40	1.76	1.11	0.35	0.42	4.28
1969	4.04	3.27	1.49	0.38	0.44	6.35
% increase	68.3 %	86.8 %	34.2 %	8.6 %	4.8 %	48.4%

SOURCE: Canada, Department of National Health and Welfare "Expenditures on Personal Health Care in the Provinces of Canada," Research and Statistics Memo, Ottawa, November 1970.

tural differences then have implications for the identification of what is currently "wrong" with health care in Canada and for the directions in which we may reasonably seek reform. Finally I shall survey the experience of British Columbia, which has been in some ways different from the other provinces. It may be that B.C. has been more successful than the other provinces in coping with the health care crisis, although it is not entirely clear why or whether the performance can be generalized.

Those aspects of health industry performance which seem to attract most public attention are costs, shortages, and quality of output. Total expenditures on health care are too high, are rising too fast, and do not buy equivalent value. Desired services are in short supply or maldistributed, and one cannot be sure of the highest quality service. Of these three, I shall focus on the behaviour of expenditures because expenditures are most easily identified and measured, because changes in expenditures have been most apparent in recent years and seem to be the most urgent source of public concern, and because expenditures are a topic on which an economist might be most likely to have something useful to say. Moreover a discussion of expenditures turns out to explain much of the distribution and apparent "shortage" problem as well. Quality of service is a very ill-defined and multidimensional concept, in spite of considerable effort by medical researchers agreement on what constitutes quality is far from complete. Still farther in the future is any adequate continuing programme for monitoring the quality of medical care actually being supplied in Canada. Although it is true that efforts to improve the efficiency of medical care delivery (and hence to control cost escalation) may have an impact on the overall quality of medical care supplied, it is not true that there is any unique positive relation between quality and expense. Until it is possible to define and to measure the quality of medical care and to detect changes in this quality in an unambiguous way, there is little that one can say about this unquestionably important topic.

In addition to focussing on expenditure, I shall confine discussion primarily to physician and hospital services, restricting the latter to "general and allied special hospitals" and excluding mental, tuberculosis, and federal government hospitals. Table I makes it clear that these two are the "leading sectors" of health care, accounting (in 1969) for about three quarters of personal health care expenditure and having risen by 315 per cent since 1957. The other components, dentists, drugs, and non-acute hospitals, have risen in cost only about 177 per cent and thus have moved very little faster than overall personal income. Thus it is not health care *per se*, but physicians and acute care hospitals, which exhibit the

interesting economic behaviour and create problems of public policy. It would be interesting to know what behaviour had been exhibited by other sorts of health care expenditure, such as construction of new facilities, research, or the many minor items listed in note 2 as excluded from the Personal Health Care concept of the Department of National Health and Welfare. Until health care costs are collected and published on a more comprehensive basis, however, our analysis is necessarily limited.

The rapid expansion of hospital and medical costs generates public concern, not primarily because the expenditure involved is now a substantial part of our whole national expenditure, nor because (since medicare) it is almost wholly a governmental responsibility. The root of the concern is a growing sense that this expansion is not buying services of equivalent value. Spectacular increases in expenditure are being absorbed in rapid price increases and extensions of services which are often underutilized, while there is little reliable evidence that increases in health manpower and facilities available in recent years have led to corresponding improvements in the health and well-being of Canadians.[4] In an ordinary industry this problem does not arise, since the buyer of its product, unless he is deceived, misinformed or mistaken, considers the product to be "worth" at least as much to him as he must pay to get it. The price he pays may be unnecessarily high if the firm he buys from is protected from competition and is either inefficient or earning monopoly profits. But it remains true that the price he pays represents the value to him of the product. Not so in the purchase of health care. The buyer is characteristically uninformed about the nature of his need, the appropriate technical procedures to meet it, the capacity of any given supplier to perform those procedures, or the price charged by any given supplier for the package of care he will receive. Nor will he even know in advance the cost of treatment from whatever supplier he finally chooses, unless (as in the case of obstetrical care) the seller quotes for a package deal. (He may know individual visit charges or per diem hospital rates, but that is not the cost of a course of treatment). All uncertainty rests with the buyer.

The contrast between health care and "ordinary" industries should not be drawn too sharply. There are many other markets in which the consumer suffers from uncertainty and a lack of technical information; the purchase and repair of complex consumer durables such as automobiles or television sets are common examples. The medical market differs from

[4] Such evidence is more convincing over a period of, say, fifty years. But the rapid expenditure increases and technological advances of the past fifteen years have had a much less obvious effect on morbidity and mortality.

these in that the institutional barriers which limit consumer access to information are more extreme while at the same time the consumer is commonly under considerable stress due to pain and uncertainty about his own need for care. Thus one can delay having a television repaired while searching for better information about repairmen, and one can set an approximate upper limit (the price of a new set) on the costs of an error in this market. The search and error costs in the medical market are at least potentially risk to life or health, and are thus of a different order of magnitude. In those branches of health care, such as dentistry, where such "life and limb" risks are perceived to be less, market forces appear to be more effective. A sharp distinction between "health" and "other industries" is clearly invalid; but as one moves across the spectrum from the markets for bread to television repair to dentistry to hospital care, the theory of the "rational" utility-maximizing consumer becomes less and less relevant as its underlying assumptions become more and more unrealistic.

Faced with this extreme uncertainty and lack of information, the buyer delegates a substantial share of control over consumption decisions to the seller; in the case of hospital services and prescription drugs the delegation is legally enforced. The result is that to a large extent the seller can determine how much the buyer will purchase. It follows that the buyer is not particularly price-sensitive, since the agent who determines his consumption decisions does not pay the price for them and may indeed receive it. A supplier who was motivated only by profits would presumably do his best to inflate both prices and quantities of care supplied, and would set a price level and guide the consumer's use of care such that their product less practice expenses was at a maximum. There is some evidence that physicians have exercised some self-restraint in determining both prices and quantities, since statistical investigations generally indicate that in most markets physicians would earn higher incomes if they raised prices and extreme examples of "unnecessary" care are considered unethical. Nevertheless the fact that physicians are the best paid profession in Canada and have steadily widened the gap between themselves and the rest of the labour force (a 40 per cent increase in the ratio of physicians' net earnings relative to average wages and salaries from 1957 to 1968, while the education differential has almost certainly narrowed) indicates that self-restraint tends to be eroded over time in a wealthy community.[5]

[5] It is of course true that this rather Galbraithian model of suppliers manipulating both demand and price is not the only one consistent with rapid increases in expenditure, price, and physician incomes. A simple supply/demand model in which supply and demand are both relatively price-insensitive and in which demand is

The information differential between buyer and seller and the agency relation to which it gives rise is logically prior to the problem of whether or not there is health insurance and what its coverage may be. The information problem implies that there is no stable "demand curve" relating quantity of service to price because physicians can manipulate the demand that they face at any given price. In this context it is notable that the rapid expansion in utilization of physicians' services over the last two decades appears to have been generated not by such clearly patient-initiated procedures as house calls, first office calls, and obstetrical episodes, but by laboratory and radiology tests, subsequent office and hospital visits, and in general contacts initiated by the physician. Moreover the rapid elimination of the house call has been achieved, not by an adjustment in its price relative to office calls, but by the refusal of the physician to perform the service. Thus the physician demonstrates his ability to generate or suppress demand, whether or not the patient is insured.

Of course the uninsured patient is responsive to price at *some* level; eventually he disregards the physician's advice or fails to pay his bill because he simply cannot. In such a circumstance the physician must either accept a lower overall income if he works in poorer communities, (as used to be true in the Maritime provinces) or else he moves to wealthy communities and generates demand there, leaving poorer areas totally unserviced. (As appears to be true in the contemporary U.S., where in addition physicians and hospitals generate by their billings high rates of personal bankruptcy and specialized medical credit agencies.)

The patient's ability to pay thus imposes some degree of restraint on the physician's power to increase service price and quantity, although the lack of information available to the consumer implies that his responses to price signals are in no sense optimal. Health insurance breaks the relation between patient ability to pay and physician charges, so that the consumer loses the incentive as well as the information necessary to respond to prices. But this development is effect, not cause. The pheno-

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increasing over time faster than supply leads to just this result. We reject this model because on a cross-provincial basis medical prices and physician incomes are *positively* correlated with supply of medical services in contradiction to this model, and because prices and costs have risen less fast in those branches of health care in which per capita supply has risen less fast (e.g. dentistry). Supplies of medical and hospital services have risen substantially faster than population. Neither of these observations is consistent with an independent upward demand shift interacting with relatively price-insensitive supply.

menal expansion of health spending came prior to medicare,[6] and public insurance arose because the rapid increases in spending, distributed randomly across households, were too much for individual budgets to bear. The information differential and the agency relation short-circuit market controls, and the resulting expenditure increases lead to public intervention.[7]

If the key to consumer behaviour in the health market is inadequate information, the key to supplier behaviour is inappropriate incentives. The forces feeding the expansion of health costs-excess utilization, unnecessarily high prices, and inefficient modes of production,[8] can all be traced to the economic incentives which bear on physicians and hospitals. Thus we do not argue that health care suppliers are in any sense more venal or self-seeking than others, they may indeed be less so. Unlike others, however, they operate under a payment system which rewards excess utilization and waste, and penalizes efficiency. It is not surprising that over time they have responded.

The fee for service system encourages the physician to expand his output, while the absence of effective market restraints encourages price increases even in uninsured markets.[9] In particular he is led to perform procedures maximizing income per unit time. (Office calls against house calls, short follow-ups against long initial visits, surgery against conservative monitoring.) Moreover he is encouraged to seek access to hospital facilities (beds, nurses, interns) which enable him to expand his throughput by the use of free community facilities. Consumers do not press for new hospitals, physicians do. Since hospital facilities represent earning assets to physicians whose costs are borne by the community, physicians will almost always regard such assets as "scarce" in the sense that they would prefer to have more available. Such a motivation lies behind the

[6] And also to hospital insurance — the data series are not presented because they are not consistent but rates of increase of over 10 per cent per year go back at least to 1953.

[7] One might be tempted to regard the increase as demand generated by rising incomes and expectations. But cross-sectional studies indicate that the proportion of income going to dental expenditures rises faster with income than does the proportion of income going to medical or hospital expense. This suggests that demand for dental services is more income-sensitive than demand for medical services, and makes it difficult to explain much more rapid increases over time in medical expenditures as the result of increased incomes.

[8] These factors have been referred to by many observers, being most comprehensively catalogued in the *Task Force Reports on the Cost of Health Services in Canada* (3 volumes) (Queen's Printer, Ottawa, November 1969).

[9] Official price indices indicate about 42% price increase from 1957 to 1968, but the true figure is in the neighbourhood of 70% or above.

commonly made assertion that physicians will tend to use as many hospital beds as are available; supply creates its own demand. The physician's interest in easy access to facilities also has implications for any programmes to improve hospital management. Improvements in hospital efficiency through reduction in excess utilization and duplication of equipment and staff will require better scheduling and monitoring of the hospital's activities, and this in turn requires that some of the physician's autonomy must be passed to the hospital management. (As a concrete example, the Task Force Reports (note 8) suggested that a physician's access to laboratory services should be conditional upon his demonstrating the medical justification for a test and his competence to interpret its results. (Vol. II, pp. 43-55).) Insofar as this increases the time and trouble costs of the phyisician's access to facilities, it will tend to lower his earning potential and will be resisted.

In addition to creating conflicts of interest over the efficiency of hospital operation, the fee-for-service system also makes more complex the problem of increasing the efficiency of medical care delivery. It is widely suggested that physician assistants or other types of paramedical personnel could be trained to take over some of the less technical functions of the physician, and such programmes are underway in several parts of North America. Where physicians are relatively scarce, such as remote rural areas or unserviced core city "ghettos," the concept of substituting paramedical personnel for (unavailable) physicians seems to work. The overall effect of such a plan is to expand medical expenditures, however, if the physician assistant is employed and directed by a fee-for-service practitioner. No physician will have an assistant unless the resulting increase in billings is at least equal to the assistant's salary. Thus for a given physician stock, introduction of assistants will lead to an expansion of billings *at least* as large as their salary costs and probably considerably larger. Only if the introduction of assistants could be matched by a reduction in the number of physicians will the overall efficiency of the system improve.

Fee-for-service payment thus creates incentives for the physician which are socially undesirable in their effects on the quantity of medical care delivered and the form of its delivery. If in addition physicians as an organized group have the power to determine their own fee schedules, this power adds an extra dimension to expenditure behaviour. A discrepancy between physicians' views of an "appropriate" income level and the actual level of incomes which they enjoy can be eliminated either by output expansion or by fee schedule revision, and ethical or other restraints on the former will generate greater pressure for the latter. This implies

that expansion of the stock of phyisicians per capita in any area will lead to increases in the rate of expenditure growth through a generation of additional "demand" for medical services, through increased upward pressure on fees if "demand" adjustment is incomplete, and through expansion of hospital and other health care facilities as physicians seek access to the public capital equipment necessary to expand overall output and billings.[10] Insofar as physicians can through price and quantity adjustment achieve their target incomes wherever they happen to be, they will not feel any economic pressure to relocate in "under-doctored" rural or remote areas but will continue to make a good living in "over-doctored" cities like Vancouver. "Shortages" in particular areas will persist regardless of the size of the physician stock.

For the hospital staff as well, all incentives encourage expanded costs. (Except direct administrative pressure and financial controls by provincial governments.) The prestige and career development of the hospital management, the incomes and professional satisfaction of the associated medical staff, the promotion and scope of the nursing and other employees, and the whole institution's sense of its contribution to the community depend on the volume and range of services the hospital can supply. So long as reimbursement is determined by costs, none of these institutional or personal objectives depend on efficiency in the provision of any particular service or development of ways to eliminate unnecessary services. Under heavy budgetary pressures ways may be found to lower costs in non-prestigious areas such as laundry, dietary, or housekeeping services, but the direct patient-care services which are prestigious, complementary to the physician, and central to hospital ideology are the last to be subjected to any efficiency drive. Hence the many examples of inefficiency, regional mal-coordination and duplication of service, and unnecessary or excess hospital services excoriated by the Task Forces are not accidental, nor are they a product of the incompetence or venality of hospital management. They are rooted in the economic incentives which bear on hospital managements, and will not be affected by improved management training or regional coordination of hospitals. Coordination with removal of unnecessary facilities by administrative order might work,

[10] This argument applies most clearly to markets in which medical care insurance is widespread or universal. It applies also to so-called "free market" medicine in which the patient pays his own bills, so long as such markets are generally in disequilibrium. As long as there exists unexploited physician power over demand and/or price, in the sense that increasing prices will not lead to falling revenues, the argument will apply. "Free market" medicine of course has little relation to the economist's competitive market with informed consumers, price competition and free entry of suppliers.

but voluntary cooperation among hospitals will not. At present ways are being studied and tested which might relate hospital reimbursements to relative efficiencies, so that losses could be imposed on the less efficient as in normal markets, but it turns out that the monumental mass of data collected quarterly on hospital operations is wholly input-oriented and gives no guidance as to the costs of different classes of output. As a consequence it is not possible with this data to make effective inter-hospital comparisons of efficiency. Current efforts to dodge this problem by rewarding a hospital with bonuses for efficiency relative to its own past performance will probably be ineffective due to the obvious feed-back effect — inefficiency now leads to smaller future budgets.

The growth of health care expenditures in British Columbia in recent years has been rapid, but not so extreme as in most other Canadian provinces. To the extent that there is little evidence that British Columbians suffer from poorer health than other Canadians, this implies that the health industry in this province has been relatively more efficient. Table II shows per capita expenditures on the major components of personal health care in 1957 and 1969. B.C. began the period with by far the highest level of spending per head; by 1969 this had been pulled down to just below the national average (which is pulled up by the "runaways," Alberta and Ontario). Table II also reveals that this control has been exerted primarily on hospital expenditure, in which B.C. has moved from second to eighth in per capita expenditure. If we accept the view expressed in the Task Force Reports and elsewhere that hospital expenditures include a substantial component of unnecessary utilization and waste, the B.C. performance is highly creditable. Similarly B.C.'s expenditure per capita on physicians' services, while still the highest in the country, has moved from 36 per cent above the national average to 20 per cent above. The physician/population ratio in B.C. has fluctuated between 21 per cent and 29 per cent above the national average from 1957 to 1969 (counting active fee practice physicians only) while physicians' fees have been higher than average in B.C. over the whole period. This tends to confirm the argument above that increasing the physician stock tends to drive up both prices and costs of health care. The B.C. data do suggest, however, that past a certain point an influx of physicians cannot generate enough new business to hold up demand; B.C.'s physician/population ratio reached a peak of 28.7 per cent above the national average in 1962 which was the last year in which B.C. physicians' net earnings were above the national average. Since then their position relative to other Canadian physicians has steadily deteriorated from

TABLE II

EXPENDITURES PER CAPITA ON PERSONAL HEALTH CARE

	(1) Personal Health Care	(2) Hospital Care	(3) General And Allied Special Hospitals	(4) Physicians	(5) Dentists	(6) Prescribed Drugs
			1969			
B.C.	182.74	106.27	(82.05)	51.54	15.46	9.47
ALTA.	198.99	121.68	(98.14)	50.42	12.32	14.57
SASK.	162.41	105.07	(88.18)	37.33	8.45	11.56
MAN.	178.18	108.04	(84.04)	45.92	10.87	13.35
ONT.	204.50	124.97	(101.28)	51.39	14.23	13.92
QUE.	172.79	119.41	(98.05)	32.84	7.36	13.17
N.B.	154.15	105.36	(84.33)	28.43	6.14	14.22
N.S.	166.58	113.15	(86.29)	36.91	6.19	10.33
P.E.I.	117.68	79.33	(62.60)	25.45	6.23	6.67
NFLD.	122.58	87.46	(75.62)	26.26	3.41	5.45
CANADA	184.34	117.40	(94.82)	43.13	10.97	12.81
			1957			
B.C.	82.32	45.88	(30.31)	22.33	7.91	6.20
ALTA.	70.88	40.31	(29.54)	17.07	5.92	7.57
SASK.	75.54	46.45	(35.20)	16.18	4.79	8.11
MAN.	62.90	32.79	(22.39)	18.94	5.05	6.11
ONT.	69.82	37.29	(27.37)	19.31	7.04	6.18
QUE.	49.71	28.66	(21.45)	12.40	2.89	5.96
N.B.	55.92	34.04	(21.13)	10.67	2.71	8.50
N.S.	49.27	29.82	(18.95)	13.13	2.22	4.09
P.E.I.	42.84	25.73	(18.03)	10.35	3.41	3.34
NFLD.	35.83	26.16	(17.41)	6.26	1.20	2.22
CANADA	62.81	35.24	(25.37)	16.31	5.10	6.19

SOURCES See Table I.

highest (and 16 per cent above average) in 1957 to fourth (and 9 per cent below average) in 1968. B.C.'s physicians have not suffered in absolute terms, as is evidenced by a 4.9 per cent per annum rise in net earnings

per physician 1957-68, for a total of 76 per cent or a 39 per cent gain in real before tax income (after a 27 per cent increase in the CPI) but they have shown a commendable restraint relative to the excesses of physicians in the rest of Canada whose real income gains averaged 75 per cent.[11] Our argument would predict a growing pressure for fee schedule revision in B.C.

The lessons of the B.C. experience appear to be that one *can* control health expenditures to a degree, and the best lever for such control is through hospital expenditures. One can, as recommended by the Castonguay Commission in Quebec, simply refuse to expand hospital beds so that the general hospital bed/population ratio falls. (B.C. now has the lowest such ratio in the country, 5.5 in mid 1971.) The results have been increasingly innovative use by hospitals and physicians of day care and outpatient facilities, as well as systems for shortening patient stay and increasing occupancy.[12] Both results represent increased efficiency and generally improved care. The steady pressure on budgets has led to ratios of personnel to patient day which have risen less rapidly than elsewhere in Canada, and are now the lowest (10.09 paid hours per patient day). In fact some hospitals have even gone so far as to withdraw unutilized beds from service, and to consider combining and co-ordinating under-utilized ones.

The weakness in B.C.'s relatively good performance in health care efficiency is that to date it has proceeded by way of the stick, rather than the carrot. The hospitals have been pressured into improving performance, rather than induced; all the pressures on hospital managements other than those from Victoria still encourage even greater expenditure. Similarly B.C. physicians under fee for service modes of payment continue to face incentives to expansion of output and inflation of prices. They have resisted, whether due to inherently greater self-restraint and social conscience than elsewhere, or due to more political pressure and browbeating. But if trends in the rest of Canada continue upward, it is hard to see B.C. physicians content to lag ever further behind.

To improve health service efficiency in the long run we must change the incentives faced by suppliers. This means that tinkering with deterrent

[11] In spite of such restraint, physician net incomes have risen relative to average weekly wages and salaries in B.C.

[12] Despite its relatively more aged population, B.C. has an average length of stay below the national average (8.98 days against 9.81 in general hospitals short-term units) and runs its hospitals at the highest average occupancy rates (90.65). Data are Canada, Dominion Bureau of Statistics, *Hospital Indicators, January-June 1971*, Cat. # 83-001 (Queen's Printer, Ottawa, October 1971).

fees and co-insurance charges directed at the consumer will do no good — consumers lack the information to respond appropriately and even if some were deterred from initial visits physicians can react by expanding other services or raising prices to maintain their incomes. Deterrents are bad if they don't work, worse if they do. Moreover training more physicians will not "break the monopoly and drive down prices" as some more naive economists hope, rather it will increase volume of output and tend to drive up prices as well as expanding hospital costs. Increasing output of paramedical personnel will likewise increase costs if present patterns of delivery and payment are maintained. Long run control can come only through reducing our utilization of those very expensive and often unnecessary resources, the physician and the hospital, training fewer of one and building fewer of the other. Alternative forms of personnel and institutional settings can be developed, but to thrive these will require changes in the payment mechanism as well. For example, payment of a flat rate per treated case by diagnosis fixed across hospitals would encourage the development of new and cheaper modes of care, whether in hospital or in some form of community clinic. The suggestions for alternatives to medical service supply by independent private practitioners under fee for service are numerous. The record in B.C. shows that health costs can be controlled for a time by direct budgetary pressure and professional self-denial, but long-run success will require substantial institutional change and a great deal of experimentation with new service modes, only a very little of which has yet begun.