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Canadian Public Policy

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Source: *Canadian Public Policy / Analyse de Politiques*, Vol. 13, No. 2 (Jun., 1987), pp. 165-180

Published by: [University of Toronto Press](#) on behalf of [Canadian Public Policy](#)

Stable URL: <http://www.jstor.org/stable/3550637>

Accessed: 16/06/2014 13:10

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Hang Together, or Hang Separately: The Viability of a Universal Health Care System in an Aging Society

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On affirme souvent que l'assurance maladie universelle et compréhensive est insoutenable, 'extravagante,' pour une population vieillissante, dans le contexte du développement rapide et coûteux de la technologie et des déficits gouvernementaux, apparemment insurmontables, et que le retour futur à une forme de responsabilité financière du secteur privé est inévitable. Le raisonnement peut paraître plausible, mais il est fallacieux, puisqu'il est fondé sur des erreurs de documentation et d'analyse. Au fond, l'attaque contre l'universalité est basée sur le souci que le coût est trop bas, non pas trop élevé. Les issues plus sérieux, qui naissent du vieillissement de la population, demande une définition plus exacte du concept de la santé elle-même, et une déclaration, pour les buts des programmes, au sujet de la nature et des limites des services de la santé.

It is often claimed that universal, comprehensive public health insurance is unsustainable, 'unaffordable,' for an aging population, in a context of rapid but expensive technological advance, and apparently intractable government deficits, and that an eventual return to some form of private funding is inevitable. The argument is plausible but fallacious, resting on errors of both fact and analysis. At root, the attack on universality is based on a concern that it costs too little, not too much. The more serious issues raised by the aging of the population, however, involve the need to define more precisely the concept of health itself, and to demarcate for program purposes the content and boundaries of health care.

"To every complex question there is a simple answer – neat, plausible, and wrong." – H.L. Mencken

Is Universality Becoming 'Unaffordable'?

The line of argument which links the increasing average age of the Canadian population with questions as to the long-run viability of universal, comprehensive public health insurance, is generally familiar. Its widespread recognition, if not acceptance, is part of the reason why demographic trends receive prominent attention in all recent discussions of health policy, at all levels. Unfortunately the argument is as fallacious as it is familiar. It starts, however, from two well-documented and universally accepted 'facts,' or at least statistical generalizations, which *are* valid.

First, the average age of the Canadian population *is* rising. The collapse of the birth rate in the mid-1960s triggered off this increase; and the acceleration of the downtrend in age-specific mortality rates in the 1970s, including males as well as females in the upper age groups, has reinforced it.¹ Projections vary, depending on assumptions about future trends in birth and mortality rates, but the proportion of the population over 65 is generally expected to rise from roughly 10 per cent in 1980 to roughly 20 per cent in 2020 – and to continue on up. This process will only be nicely started by the year 2000, when the proportion over 65 will still be around 13 per cent – the first baby-boomers do not reach 65 until 2011.²

Second, it is equally well-known that per capita rates of utilization of health care, and

costs, rise with age, subject to some qualifications for the costs of the very young, and child-bearing women. The rate of increase of per capita costs with age, however, differs greatly among different components of health care – consider dentistry and long-term care.

There is room for debate as to the extent to which the upward slope in age-use and age-cost curves (graphs of per capita use against age) is due to the inclusion of costs of terminal care – if one measures only use and costs for persons who are not within several months or a year of death, the average per capita costs of ‘survivors’ does not increase as rapidly with age.³

More generally, one can identify high users, who are quite ill, at any age. If one excludes these people, who make up a higher proportion of the elderly population, it can be argued that ‘healthy’ elderly people do not differ much from ‘healthy’ members of the non-elderly population in their use patterns.⁴ But while these observations may be a healthy corrective to a tendency to stereotype the elderly as a sickly class, they leave intact the observation that, whatever the mechanism, health care utilization and costs rise with age.

From these two generalizations the argument unfolds smoothly. The aging of the population will place increasing upward pressure on health care use and costs as more and more people fall into the high-cost age groups. Together with the progress of medical technology, which is constantly extending the scope, but also the cost, of effective interventions, demographic changes will enforce, if not an explosion, at least a continued and substantial escalation of health care costs.

But Canadian governments, federal and provincial, are in no position to fund this inevitable expansion. They are trapped by a combination of slow economic growth and taxpayer resistance into mounting deficits and the need to cut public expenditures. They will have great difficulty meeting current spending commitments, let alone coping with the increases in costs which will come with the aging population.

Clearly something has to give. One alternative would be to abandon universality/comprehensiveness of coverage, and allow increased ‘pri-

vate funding’ to flow into the health care system. This would be a direct repudiation of the principles spelled out and supported in the *Canada Health Act* of 1984, and, as most Canadians appear to agree, fundamental to the philosophy of the Canadian Medicare system since its inception. The other choice is to maintain the ideological purity of the system at the expense of progressive deterioration, a growth of the backlog of ‘unmet need,’ as the resources required to respond to the ever larger elderly population, at the standards of care dictated by evolving technology, simply are not available. One way or another, openly or covertly, universality has to go. We cannot afford it.⁵

Neat, plausible, and wrong. The argument rests on two major and distinct errors of fact, compounded with a carefully nurtured accounting confusion, and a questionable projection of the bias of technological progress. It converts, and in some hands is specifically designed to convert, a problem of policy choices in an uncertain world into a spuriously inevitable ‘grim trade-off’ or ‘painful prescription,’ by distorting or diverting attention from policy options and mis-stating or prejudging the quantitative implications of current trends.

The Quantitative Impact of Aging on Health Care Costs

First, the impact of aging per se on health care costs is readily calculated, and has been calculated by a number of different analysts.⁶ One need only project forward the number of people in each age and sex class, then multiply these numbers by constant age-sex specific average per capita utilization rates or expenditures, defined at a point in time (usually the most recent available for the jurisdiction of interest), and then calculate the rate of escalation of per capita use or expenditure averaged over the population as a whole, as the proportions of the population shift to the ‘high-end’ groups.

This calculation isolates the contribution of demographic change alone to use and costs, holding constant the rate of use of persons at each age. It thus imposes as an assumption that 75 year olds ten years from now will use, on

average, the same pattern of services as 75 year olds do now, and at the same prices. Per capita costs for the population as a whole will rise as the proportion of 75 year olds increases, relative to, say, 30 year olds.⁷

Such computations yield projections of the impact of aging on costs which are quite consistent – and quite small. The increases in per capita costs are in the neighbourhood of 1 per cent per year, for health care as a whole, over the next 20 to 40 years. Moreover, as one would expect, the largest effects are on services which are particularly used by older people – long-term care and home care. In these sectors, demographic forces alone imply increases of 1.5 per cent – 2 per cent per capita per year. For physicians' services, on the other hand, the age-use curve is much less steeply sloped, and the impact of aging per se will only increase use by about one-third of a per cent per year (note 6 supra.).

While any compound growth rate will yield impressive increases if maintained over a sufficiently long time, these rates are in fact well within the normal rates of growth of the Canadian economy, and most other developed economies as well. It follows that the increases in health care costs which will result from demographic forces alone will be supportable by the allocation of a constant, or even a falling, share of our national income. They are not nearly large enough to place a strain on our economic resources.⁸

These projected rates of increase are also well below historical trends in health expenditures, indicating that past increases have been driven by forces other than demographic change. Yet it is a widespread perception among health care providers that care of the elderly is becoming an increasingly significant share of their activity, and of system costs. Closer examination of trends in utilization resolves the apparent contradiction.

What is happening is that age-specific per capita utilization among the elderly is rising relative to that of the non-elderly, and for most forms of care in absolute terms as well. Thus the age-use curves are not constant, but are rising and rotating counter-clockwise. The increasing

health care utilization of the elderly population is real; but it is a result, not primarily of the increase in their numbers, but of the changing patterns of servicing which they are receiving.

These increases cannot therefore be ascribed to demographic forces external to the health care system; rather they reflect, and raise questions about, the behaviour of the health care system itself. Why are elderly people being treated in an increasingly intensive and costly way, and with what results? It may be that the increases in servicing which they are receiving represent either or both of a reduction in previously unmet needs, or an expansion of the range of potentially effective therapies. But it is also possible that there is increasing servicing of questionable effectiveness, encouraged by the expanded capacity and ambitions of the health care system itself. In either case, the increases are *not* simply a response to demographic changes.⁹

Universal Coverage and Cost Containment

The second error of fact in the argument that we 'cannot afford' universal health care is the assumption that a universal public insurance system is more expensive than a system of partial or selective coverage. There are two different sources of confusion behind this error.

The first arises from the lumping of public health insurance together with family allowances, old age pensions, and other public direct payment (transfer) programs as 'social programs'. A direct payment program will obviously be less expensive, or alternatively will provide higher benefits per beneficiary, if it is targeted to a selected set of beneficiaries rather than being made 'universal'. Consequently it is argued that scarce transfer dollars go farther in responding to specific needs if they are made 'selective' – conditional or categorical – rather than universal.¹⁰

But if outlays per beneficiary are not under direct program control, and are highly variable and dependent on factors which are difficult or impossible to monitor accurately, as is the case with health insurance, it no longer follows that costs must be lower (or benefits higher) under selectivity. Universality may be an essential

factor in maintaining control over total program costs. The experience of the Canadian health care system, and its contrast with that of the US, indicates conclusively that such has been the case.

The second source of confusion arises from analogies with the economic theory of consumer behaviour. Here the variability of outlays per beneficiary is recognized, but the argument is made that comprehensive coverage contributes to additional cost per beneficiary by encouraging the overuse or frivolous use of 'free' care. If coverage per beneficiary is partial, on the other hand, users of care will be required to pay part of the cost, and will be motivated to make more careful (i.e., less) use, and perhaps to 'shop' more carefully among providers, thereby constraining price increases.

The inadequacies of the analogy between health care utilization and the consumption of a textbook 'commodity' are rather involved, and would take us farther into economic theory than is necessary or helpful.¹¹ A more comprehensive view of the utilization process, however, undercuts the argument for cost containment through partial coverage, and points towards comprehensiveness, along with universality, as conditions necessary to establish a bilateral bargaining relationship between providers and payers, such that costs are in fact better contained than in a hypothetical 'free market' – which has never actually been observed in health care in any country.

Regardless of the structure of argument, the basic facts are clear. The Canadian system of universal, comprehensive coverage for hospital and medical costs has maintained control over costs; the US system, with multiple funding sources and a high proportion of out of pocket payment by patients, has not. Figures 1 and 2 display the historical record for the two countries, and identify the years during which the Canadian provinces were introducing first public hospital, and then public medical, insurance, in response to the federal cost-sharing and standard-setting legislation.¹²

These Figures show that Canada has been able to hold health care costs (whether measured by personal health care (PHC) expenditures, or the more comprehensive national health expendi-

tures (NHE) measure) to a relatively stable share of national income for the best part of two decades. The US, on the other hand, has been experiencing a genuine 'cost explosion' which does not, despite widespread US opinion to that effect, date from the introduction of their partial Medicare (for the elderly) and Medicaid (for the poor) programs in 1965. The uptrend was well established by that time.

Moreover, the divergence between the two countries' experience begins with the completion of the universal plans in Canada; when our funding system was similar to theirs, our costs escalated at the same rate. Further, the discrepancies in national experience are specifically located in the components of health expenditure, hospital and medical care, for which Canada introduced universal public coverage; there is no significant difference in the (total) performance of the remaining components.¹³ Finally the US in the 1980s, having adopted a new, competitive strategy of health funding and delivery, has so far shown *more* rapid cost escalation than in the late 1970s. Erroneous claims to the contrary have been based on 'money illusion,' an elementary confusion between nominal and real rates of increase.¹⁴

Indeed the one clear example of a change in US cost patterns, the very sudden and sharp drop in hospital utilization between 1983 and 1984, is a response not to the competitive strategy, but to a change in the public reimbursement system, the shift to admission-based reimbursement, combined with tougher pre-admission screening. These are 'regulatory' mechanisms, imposed by payers, independent of any user choice, and are thus closer to Canadian modes of control. Within their limited sphere of application, they have worked.¹⁵

It is thus very clear from the Canadian and US comparisons that universality, far from contributing to cost escalation, is in fact associated with effective cost control, and for reasons on which there is now general, if not universal, agreement. In essence, a system of universal coverage uses the public sector as a sort of 'consumers' co-operative,' a collective organization with which to bargain with providers and their organizations on behalf of all users collectively, not just those with few resources or exceptional

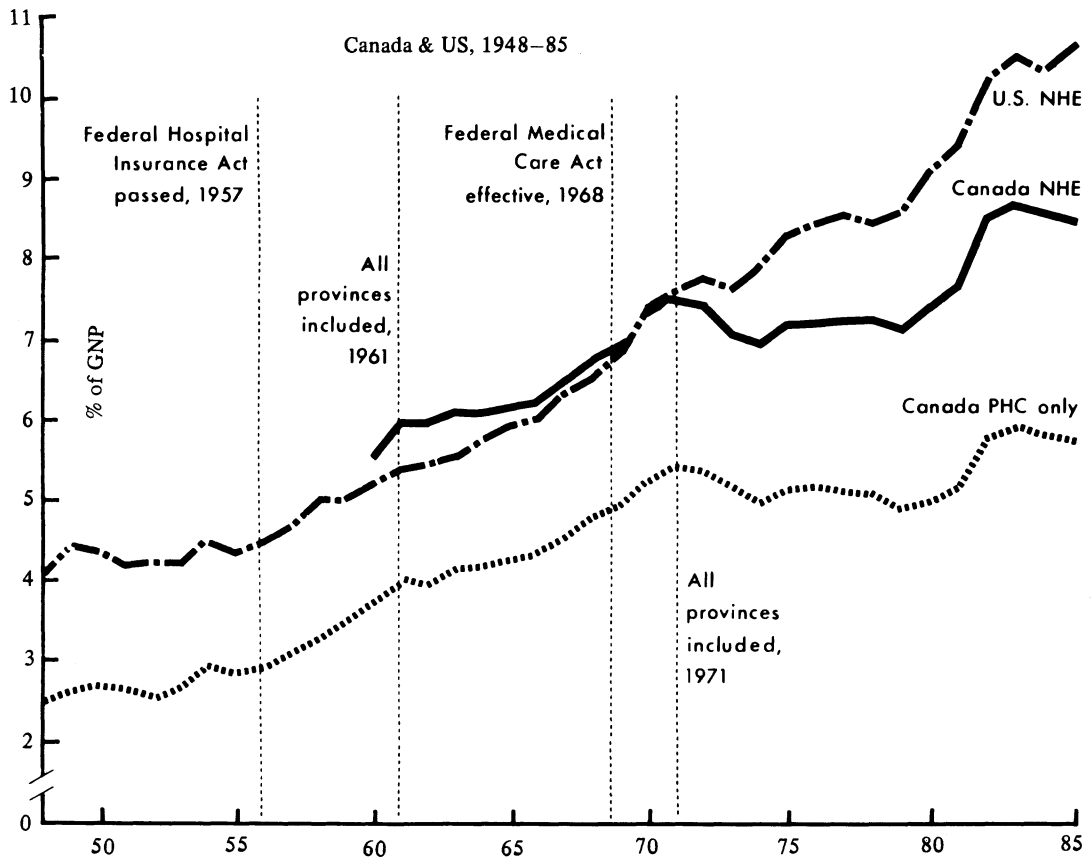


Figure 1
Health expenditure as share of GNP

needs. This 'consumers' co-operative' equalizes the bargaining power, compared with the situation in which individuals confront professionals directly, and thus permits the community to hold down the share of its income which it must make over to providers.

A selective system, on the other hand, treats the public sector as a form of 'charity' through which the general community provides assistance to particular individuals whose own resources are inadequate to meet their needs. In this framework, the primary role of the state is to mediate between the community at large, and a sub-set who require assistance. The relationship between the state and providers is secondary, and weighted in favour of providers. Accordingly, a selective system is much less effective in containing overall costs – and providers prefer selective systems.

It therefore makes no sense to argue that we

will in future be less and less able to 'afford' universal coverage. If we had not 'gone universal' by the beginning of the 1970s, our cost patterns would presumably have continued to mirror the US trends. If so, we would now be spending about 25 per cent more on health care, an *increase* of more than \$10 billion or over \$400 per capita.

Government Budget Outlays – Confusing the Part with the Whole

The argument that 'we cannot afford it' disregards the contrasting US/Canadian experience, however, because it focuses only on government budgets, not on total outlays. This is the accounting confusion referred to above.

Direct transfer programs, such as family allowances or old age pensions, have a net program cost, *to the community as a whole*, of

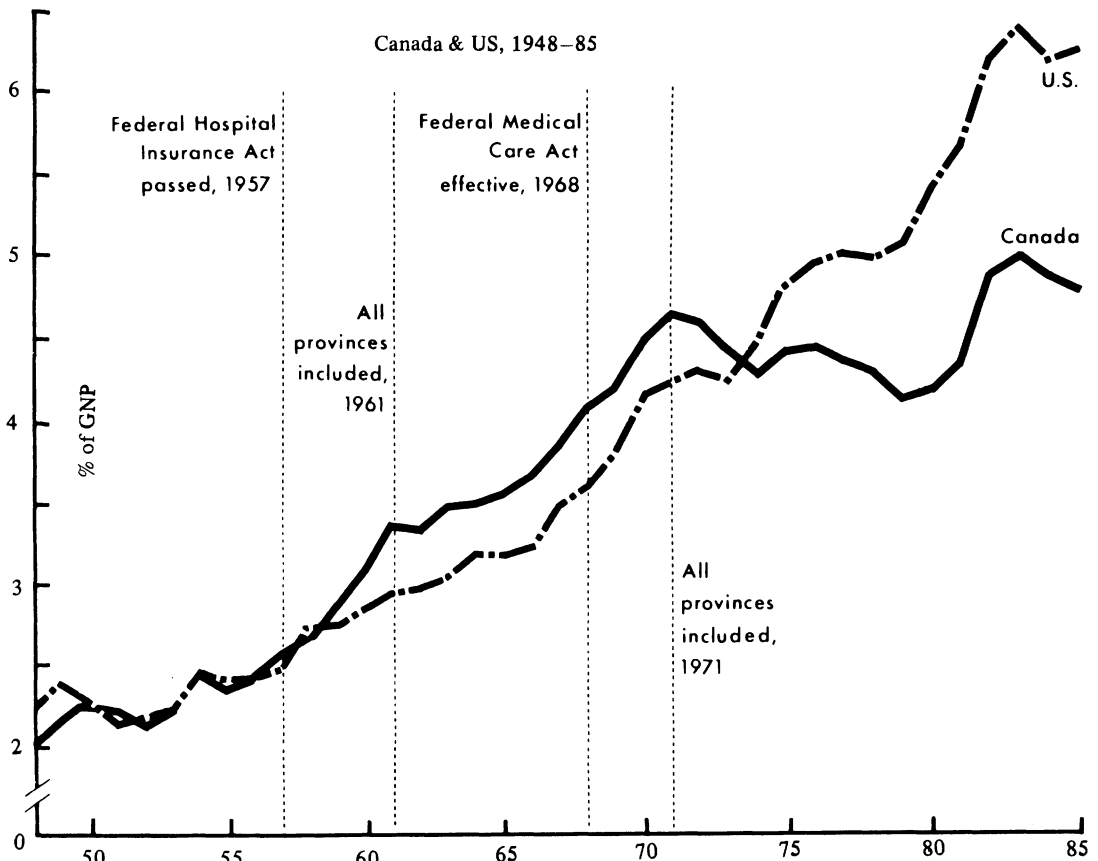


Figure 2
Hospital and MD expenditure, as share of GNP

zero. Money is taken away from one group, in taxes, and given to another, as cheques in the mail. Adding across both groups, gains and losses cancel out.¹⁶ It is common, therefore, and not unreasonable, to look at the program 'cost' from the perspective of the government budget, rather than society as a whole, and refer to public outlays as costs, though they could equally well be described as benefits.

In the case of health care, however, expenditures are not simply transfers of wealth, but 'exhaustive,' in that they go to reimburse the use of real resources – human time, energy and skills, materials, and services of capital – which are used up in the process of providing services. These are net costs to the community as a whole; the resources used up to provide health care are not available for other purposes. Such costs may be financed through the government budget, through 'social' or private insurance systems,

through out of pocket payment, or through private charity, but the cost of health care to the community is the sum total of all such outlays through whichever channel they flow.

It is therefore a simple accounting confusion to imagine that the costs of health care are somehow restricted to the component which goes through public budgets. It is certainly true that when Medicare in Canada took over the insurance process, premiums which had previously been deducted from payrolls at source and sent to a not-for-profit insurance agency were subsequently sent to a government agency and moved from one set of accounts to another. But that shift per se represented neither a rise nor a fall in the costs of health care.

The argument against universality, however, focuses on government budgets alone, as if there were some special constraint on what the community could afford to pay through this particu-

lar channel. It implies, or even states, that we *could* afford to pay more, if we did so as individuals out of pocket, or collectively through private insurance, but we cannot afford to pay more through taxes. Considering that health insurance premiums, like taxes, are for most of the population deducted at source and have identical effects on after-tax income, the distinction is, to say the least, a fine one. At the end of the day, the health care costs of the community must be paid for by the community, regardless of the channel of payment, and do not become less or more, or 'different,' merely by virtue of flowing through different budgets.

That is not to say that the choice of channel has no effect on total spending; the evidence already cited makes very clear that universal public finance leads to lower overall outlays. But it does not do so merely by re-labelling; the total costs are actually lower. And here we get to the nub of the argument against universality. Many of its critics, behind the rhetoric, are quite aware that universality is indeed 'affordable,' much more so than a system of multiple funding sources. Their argument is rather that health expenditures should be substantially *higher* than they are, that universality leads, not to an overly costly system, but to an 'underfunded' one. Spokesmen for medical associations have been particularly clear on this point.¹⁷

The Real Criticism: Universality, 'Underfunding,' and Technology

This position shifts and clarifies the argument considerably. The issue is not one of economic constraints on our ability to maintain universality, at least in the overt sense of comprehensive, first-dollar coverage for all. Quite the contrary, to the extent that we believe that economic constraints are likely to be more severe in the future than in the past, maintenance of universality becomes *more* important. But the providers' argument of 'underfunding' implies that the community is being harmed by the restraints on health spending which are made possible, and effective, by universality, and would be better off if more were spent.

If in fact the community can 'afford' to spend more through private insurance or out of pocket

channels – and it can, if willing to give up other things – then of course logically it can 'afford' to spend more through government budgets as well.¹⁸ The problem of 'underfunding,' therefore, reduces to providers' perceptions that the community priorities expressed through the political process are 'wrong,' or at least unacceptable to themselves, and that they would be better able to further their own professional priorities, which they believe are 'right,' if they could sidestep the political process of allocating resources, and gain access to less closely guarded private funds.

The contrasting US and Canadian cost experiences suggest that this latter judgement is entirely correct.¹⁹ The key issue is the question as to whether the political priorities which control expenditures in a universal system are in fact 'wrong' in the sense that not only providers, but the community at large, or at least significant segments of it, would be happier with alternative priorities reflected in a continuing escalation of the share of income devoted to health care costs.

Here we rejoin the component of the 'costs of aging' argument which depends on a projection of the bias of future change in health care technology. It is clear from the demographic projections that aging per se will not require us to spend a rising share of national income on health care, just to maintain current (age-specific) levels of provision (unless, of course, future economic growth trends go flat, which is not now projected by most observers).

The claim that technological developments will raise costs is based on the positive assumption that medical technology will generate a steady stream of innovations which are on balance both more effective and more expensive, redefining and expanding the definition of 'need,' and on the normative proposition that we as the decent, humane community, ought to be prepared to expand spending on health care to meet these needs.²⁰ Otherwise universality becomes a hollow boast, 'universal access' to an ever more obsolete and inadequate range of services, compared to what the advance of knowledge and technique is making possible.

Indeed the claim that the Canadian system is 'underfunded' at present, is equivalent to the assertion that the stability of costs (as a share of

national income) over the past 15 years has already been associated with declining standards and accumulating 'unmet needs'. People are being denied access to therapeutically effective interventions, whether or not they are aware of it, as a consequence of expenditure limitations, and the progress of technology can only make this situation worse.

This single issue raises two types of questions. The effects of cost containment up to now are in principle, and to a considerable extent in practice, measurable, although in some sectors they are by no means as securely measured as one might like. The direction of future technology, however, is considerably more speculative. We shall deal with it first, because there is less to be said.

The first point to emphasize, however, is that there is no *necessary* positive linkage between technical progress in health care, and cost escalation or increasing unmet need. Innovations may permit expensive salvage – Lewis Thomas' half-way technologies, or effective but expensive 'spare parts' replacement. But equally they may permit prevention or early intervention, which in turn may (though it need not) lower overall costs. Innovations in treatment also lower costs, permitting early ambulation and discharge for hospital patients, for example, or drug therapies which substitute for medical or surgical interventions. (Consider the potential impact on long-term care costs of a drug therapy for Alzheimer's Disease, or on cardiac care of a safe means of dissolving arterial plaque.) It is simply an empirical question, what the net effect will be over any time period; one cannot assert a priori that costs must be increased.

Secondly, the direction which technological progress takes, both in development and in field of application, is not independent of the incentives created by the delivery and funding system itself.²¹ If, as in the US up to October 1983, the hospital system is essentially cost-reimbursed, there will be a ready market for cost-enhancing technical changes. The impact of the reimbursement system on the proliferation of cardiac care units, for example, is notorious. This not only encourages the R & D industry to focus on innovations which expand reach but add to cost, it also encourages providers to extend the appli-

cation of new equipment and techniques ahead of their demonstrated effectiveness.

But with the change to case-based reimbursement in US hospitals, it is no longer automatic that a new piece of equipment, if it can be kept busy, is a money-spinner. When reimbursement is detached from specific patterns of care, the costs of extra servicing come straight off the hospital's bottom line – whether or not it is a for-profit institution. This is already having an impact on the market for medical equipment in the US, the key point is that it may also have an impact, over a longer time horizon, on the pattern of innovation. It may be more profitable, in future, to develop and bring to market cost-reducing innovations; and medical practice may extend less rapidly the fields of application and the utilization of new techniques.

The subjunctive is unavoidable; the future is an uncertain place. What one can say with confidence is that the incentive patterns in the 'innovation industry' have changed; whether the bias of technological progress in medicine will also shift is less sure. Nor is it clear that the change is entirely beneficial; a re-direction of research effort may discourage the development of high-cost technologies which the community would, in fact, have been willing to pay for. (But how would we know?) At this point, however, it is clearly misleading to impose the assumption of a continuing upward bias as if it were a 'fact' as secure as, say, the projected aging of the population.

Cost Containment in Canada: Process and Effects

When we turn to the effects of past cost control in the Canadian system, we have a few more facts to go on. There are two main forms which containment can take, and has taken. Trends in total costs, or expenditures, are the product of trends in utilization, and in unit prices. Again in comparison with the US system, we find that cost containment in Canada has been the result of control over both of these components, but that the emphasis has been different in the two sectors of physicians' services and of hospital care.

In the case of physicians' services, the trends

of increase in manpower and utilization are very little different on either side of the border. The major difference, and it has been major, is in the rate of escalation of fees. Since 1970, indices of physicians' fees in Canada (adjusted for differences in general inflation rates) have run about 3 per cent *per year* below corresponding US rates.²² Thus cost containment in this sector has been entirely a matter of price and income control, and has had no effect on the availability of services to patients. 'Underfunding' of physicians' services means, not that patients are suffering from insufficient care, but that physicians would like to earn more money.²³ These income aspirations, legitimate or otherwise, are presented to the rest of the community as a health problem – politically understandable, but no less misleading for that.

In the hospital sector, however, the impact of containment is much less clear. The relative incomes of hospital workers, nurses and others, are an extremely important component of cost trends, but for most of the post-1971 period (as before it) these incomes have been rising. The principal difference between cost trends in Canada and those in the US lies in the growth rates of 'servicing intensity,' spending per capita or per hospital day, adjusted for changes in input prices. This measures the increases in person-hours, supplies, and use of capital equipment being provided through the hospital system. Such 'servicing intensity' has grown much faster in the US than in Canada, and thus represents a real difference in utilization.²⁴

But it does not follow that the health of Canadian patients is suffering as a result. There is extensive research documenting the fact that patterns of hospital utilization, and procedural frequency, vary widely across regions and time periods, for reasons which cannot be traced to the underlying health needs of the populations served, and are not reflected in their health outcomes. The less rapid growth of servicing patterns in Canada relative to the US does not necessarily represent accumulating 'unmet need,' it is at least as possible that it represents avoidance of (some of) the unnecessary and ineffective utilization which is considered by most observers to characterize the US system. Certainly there is no evidence in aggregate

statistics that the health of Canadians is worse than that of Americans, or improving less rapidly. Quite the contrary.²⁵

The problem, however, is that utilization patterns in hospitals are not the outcome of careful evaluative research into what works and what does not. A very large part of activity is generally conceded never to have been properly evaluated, either at all, or in particular applications. Rather there is a bias towards: 'When in doubt, do something,' which has found full expression in the US, at least so long as the many different components of the reimbursement system added up to, in effect, cost reimbursement. Things appear to have changed in 1984. In Canada, the activist urge has been tempered by global budgetary constraints, which seem to express a bureaucratic attitude of: 'When in doubt, don't'.

But in both systems, much more needs to be known about what is going on. It is conceivable that cost containment is, in fact, resulting in some Canadian patients being denied potentially effective interventions; it is equally possible that there is enough ineffective activity going on, even in the Canadian system, to permit further savings. For that matter, both may be true simultaneously. It would be good to know.

The widely quoted evidence from the US Health Maintenance Organizations (HMOs), indicating that changing from fee for service to capitated medical practice can lead to reductions in hospital utilization of 20 to 40 per cent with no apparent harm to patients, certainly suggests that cost containment is quite compatible with high quality care. It also indicates that, despite its record of successful cost control, the Canadian system is not the last word on the subject.

Up till now, providers have ignored or resisted the external accountability implied by evaluation (based on evidence as opposed to professional opinion), or external comparison. Provincial payers have generally held down the increases in global budgets as best they could, again without relying on detailed evaluative evidence or promoting innovation. They have exemplified Charles Lindblom's characterization of administrative systems – 'Strong thumbs, weak fingers'.

The result has been a system with a high degree of equity, and relatively successful global

control, but little flexibility and organizational innovation. Providers have enough political power to block significant changes, while provincial governments can often block pressures for expansion, or at least retard their effects. The US experience is in contrast on all three points: highly flexible and innovative, but remarkably inequitable, and so far, despite the localized successes of particular organizational innovations, still out of control on global costs. Until such control can be established, further radical changes seem inevitable. The challenge, of course, is to find a way to get the best of both worlds.

The desirability of better evaluation of the interventions being carried on in the Canadian hospital sector, however, or of greater flexibility and innovation in organizational design, does not salvage the fallacious argument that the present universal system is or will become 'unaffordable,' whether because of population aging or otherwise. If the technologies developed in the future (and those currently available) are carefully evaluated for effectiveness before being put into effect, past experience gives no reason to believe that they cannot be provided in a universal system. A fortiori, if we can apply the information currently available on more efficient and less costly ways to provide care, the future will be even more affordable. (And if we really *cannot* afford it, abandoning universality will not help!)

The Persistence of Fallacy: Ideology and Self-Interest

Yet the claim that universality is unaffordable persists, despite its egregious lack of internal validity. The principal source of its appeal may lie in its congruence with two distinct types of ideological bias.

One is a general attitude towards the proper role of the state, which views public activity as per se suspect and private activity as per se meritorious. This sort of 'financial press' bias is usually charmingly innocent, i.e., profoundly ignorant, of the institutions, functioning, or performance of the Canadian or any other health care system, but likes the sound of such words as 'private,' 'free enterprise,' or 'profit'. Univer-

sality reeks of socialism; its consequences are bound to be bad whatever they may be.

More interesting to an economist, however, (as opposed perhaps to a political scientist or a social psychologist) is the ideological bias which is rooted in a relatively shrewd, if not always clearly articulated, sense of how the health care system actually functions, and which has a strong colouration of plain economic self-interest. As noted above, the argument of 'underfunding' in the case of physicians' services reduces not to a problem of insufficient personnel or services, but to a pay claim. Physicians believe they would receive higher fees and incomes under a non-universal system. They are almost certainly right.²⁶

But the question of hospital funding is also connected with the economic interests of physicians, as well as of hospital employees. Physicians make their livings by providing specific services for a fee; their ability to do so is (to a greater or lesser degree, depending on specialty) influenced by their access to the 'free' capital and personnel provided by the rest of society through the hospital system. The growth of that system in Canada has been limited by public restraints; but the medical schools continue to churn out ever more physicians. The ratio of 'doctors per bed,' or per the bundle of equipment and personnel which goes with a bed, is rising steadily – each individual physician's access to these 'tools of the trade' is being progressively curtailed. It is not therefore surprising that physicians perceive 'underfunding,' which places pressure on their productivity and earning ability at any given fee schedule.

The attack on universality, which masquerades as a claim that we cannot afford it, and emerges as a claim that we ought to spend more, thus has good solid roots in economic self-interest – not surprisingly, since by accounting definition every dollar of health expenditure is simultaneously a dollar of income to someone providing (directly or indirectly) health services. Cost containment is in aggregate income control, by definition.

But there is a strong ideological component as well. As noted above, universal, comprehensive public reimbursement imposes on the health care system priorities generated through the political

process. The overwhelming popularity of Medicare in Canada makes it unlikely that the political system is doing a poor job of reflecting the views of the community at large. But professional ideology does not accept the legitimacy of these priorities. 'Health should not be a political football' is an assertion of the superior legitimacy of priorities derived from professional opinion, regardless of what a duly elected government, or its electorate, may want. From this perspective, there is a basic ideological conflict between universality and the traditional professional claim of authority.²⁷

This claim, however, is also in conflict with the ideology which underlies the 'financial press' hostility to universality. The latter holds that social priorities should be the outcome of decisions by individuals in the marketplace, that people should get what they are willing and able to pay for in a 'free' market. (The institutional requirements of a 'free' market, and the distributional implications of making access to health care dependent on ability to pay, are commonly either not understood or passed over in embarrassed silence).

This is in sharp opposition not only to the expression of priorities through the collective, political process, but also to the professional determination of priorities on the basis of need. Few physicians would accept the view that the medical services 'market' should be open to anyone who could find a customer, regardless of qualifications, or that people without resources should not receive care, whatever their needs. Both propositions are central to the 'free market' ideology. Yet holders of these two conflicting ideologies are often allied in opposition to universality, probably because they have never thought their positions through beyond the rhetorical level, and do not understand their implications.

So far, however, universality in Canada has successfully met the repeated challenges thrown up by professional ideology and self-interest, and the much less serious grumbling by the ideologues of the market. If the analysis thus far is valid, such challenges must be expected to continue, but there is no reason why they should be any more successful in the future than in the past. The objective economic situation, on the

other hand, supports rather than undermines universality – it is the best bargain around. Attacks on the costs of universal 'social programs' from the business community, if extended to include Medicare, cast serious doubt on the relevance of the principle of enlightened self-interest.

Looking Forward, Not Back: The Real Issues in an Aging Society

Are there then no problems on the horizon, and can we regard the issue of universality versus selectivity as logically settled in health care? Well, no, not entirely. There are several problems for the health care system generally, which impinge directly on the long-run viability of universality, and which are also bound up with the on-going aging of the population. These may be grouped under three heads.

First, as mentioned above, Canadian medical schools are currently turning out new physicians at a rate which, combined with residual immigration, is raising the supply by 1.5–2 per cent per capita per year. At the same time, demographic trends are having a comparatively trivial impact on physician use, about 0.3 per cent per capita per year. Population aging requires a redeployment of resources, at least in relative terms, away from physicians' services and over to what the British call the 'Cinderella services' – long-term care, home care, mental health – where aging *is* having a significant impact on needs.

Yet the ever-expanding supply of physicians is creating a proportionate expansion in demand for physician incomes, i.e., expenditures on physicians' services. If expenditures are to increase for those services for which population aging does increase needs, and these are real and important, then either new resources must be added to the system as a whole, or physicians' average incomes must fall. Specifically, if per capita expenditures on physicians' services were to rise only at the 0.3 per cent implied by population aging, and numbers of physicians per capita continue to rise at nearly 2 per cent per year, average incomes per physician must fall at between 1 per cent and 1.5 per cent per year, more or less indefinitely. This mathematical

inevitability goes far to explain claims of 'underfunding.'²⁸

Indeed what appears to be happening, as noted above, is that utilization patterns are shifting among the elderly in particular, so as to keep occupied the increasing numbers of new physicians. In addition to new procedures and technology, a substantial part of the increase is simply higher rates of office visits to GPs, particularly among older people.²⁹ Rather than the aging population placing pressure on physician supply and costs, it is the increasing physician supply which is being accommodated by the increase in age-specific utilization rates among the elderly.

But it is hard to see how an ever-increasing physician supply can be reconciled with continuing stability of cost patterns in the health insurance system as a whole, much less with expansion of those other services most used by older people. Universality may then be threatened by the 'Sorcerer's Apprentice' of manpower policy, which creates (to mix a metaphor) what Reinhardt has described as ever more place settings at the health care feast. One could, of course, simply restrict the number of physicians permitted to bill the provincial plan – turn some would-be guests away from the table. But is British Columbia's policy still universal coverage? More to the point, if it continues to be upheld by the courts, it is very likely to spread. What happens then, if increasing numbers of physicians cannot gain access to the public plans, anywhere in Canada?

An alternative approach, of course, is to support increased numbers of physicians by withdrawing funds from other parts of the health system – in particular, hospitals. To some extent this may be happening indirectly, as elderly patients with long lengths of stay occupy an increasing share of hospital beds. But while this may mitigate cost problems, by converting acute care beds into de facto long-term care through inserting 'bed blockers,' it raises the important problem of appropriateness of care. This was discussed above in the evaluation of effectiveness of care. The second major issue to be confronted by a universal, comprehensive system is thus, universal access to what?

The principle was built into Medicare from the

beginning, that it provide universal access to *medically necessary* services. This excludes insurance examinations and other administrative activities, as well as obviously elective cosmetic surgery; it also provides a justification for limitations on the frequency of periodic health examinations. In general, however, medical necessity has been defined implicitly, by the willingness of the physician to provide or recommend a service, and of the patient to accept it. Yet the argument for effectiveness evaluation, or technological assessment, is based on the position that a good deal of current servicing is *not* medically necessary, although it may be provided in good faith.³⁰

This in turn implies that the individual clinician's judgement can be improved, with beneficial effects on both outcomes and costs. But how? The search for mechanisms, for transmission belts to carry the results of evaluation of technique into changes in patterns of medical practice, is a major and largely unmet challenge for the Medicare system, which may lead to a redefinition of the concept of universality in practice, though not, as noted above, in principle. Must a universal system reimburse services for which expert opinion judges there to be no evidence of efficacy, if clinician and patient believe them to be necessary? Which experts? ... what evidence? ... and which clinician?

Such questions lead one into the third and perhaps the most difficult area of all, particularly in the care of the elderly, the boundaries of health care itself. For the young and healthy, there is a clear demarcation between health care and 'other things,' such that there is little room for argument as to where universal entitlements end. But for the frail elderly person, the boundaries become much less clear. Does universal access to a single standard of hospital and medical care imply similar access to long-term care? Personal care? When does home care cease to be a health service, and become a convenience or a social lifeline in loneliness and isolation?

The public system is intended to support health, not happiness. But if food, shelter, companionship, and activity are, for part of the population, decisive to health as well as happiness, what is the basis for their exclusion? Lines must be drawn, and are; but services for the

elderly which fall into the economically favoured category of 'health' may then squeeze out more valued, and even less expensive, services (or direct cash transfers) which do not as clearly meet that test.³¹

These sorts of questions, the demarcation of the boundaries of health care, the determination of necessity of health services, and the reconciliation of manpower policy with spending control and the evolution of needs, are neither new nor surprising, just difficult. But they do represent significant conceptual and operational problems in the application of the principle of universality. They, not hypothetical economic constraints or ancient ideological objections, pose the really interesting problems to be resolved in the future evolution of our health care system.

Such questions are not peculiar to Canada. Virtually every nation in the developed world is facing a similar cluster of issues in health policy. And each, like Canada, is recognizing that the way ahead involves the development not only of programs and policies, but of new intellectual and conceptual frameworks for thinking about health in a broader social context, and about the nature of the inter-relationships and obligations among the individual, the family – where one exists – and the wider society.

What distinguishes the Canadian situation, however, is that our solution to the earlier problem, of funding and delivering health care narrowly defined, has been one of the most successful in the world in reconciling and striking compromises among equity, access, quality, and affordability. Some other countries, most notably the US, are still struggling with the problems of the 1960s, although using the rhetoric and institutions of the 1980s. We are now in a position to go forward, and to find explicit ways of dealing with the questions which were left implicit, swept under the rug, in the establishment of the Medicare system.

This is enough of a challenge, that we cannot afford to allow ourselves to be distracted by attempts to re-open old issues, and to roll back the progress that has already been made, based on superficial reasoning and faulty or non-existent data. Nor should we, either explicitly or implicitly, try to 'blame' our elderly population (whom we in due course hope to join). The

growth in their numbers is focusing and making explicit issues and questions which were inherent in our system from the beginning, but the stresses developing in health care are traceable to the behaviour of that system itself, not external demographic pressures. In a sense the elderly are the messengers, showing us what the next set of social tasks will be. To succeed, we have to get the message straight.

Notes

- * The research underlying this paper was supported by the National Health Research and Development Program through a Research Scientist Award. The paper was presented at a conference on 'Health Care for the Elderly in the Year 2000,' November, 1986 in Victoria, BC, and will subsequently be forthcoming in the conference proceedings.
- 1 The two factors have quite different effects on the age distribution. A fall in births triggers a rise in the average age of the population, but has no effect on the numbers of elderly people. Falling age-specific mortality among the aged, on the other hand, has immediate effects on the numbers and proportion of elderly people in the population, even though its influence on the overall average age of the population may be less pronounced.
- 2 Most projections show the major increase in the proportion of 'old-old,' 75+ or 85+, taking place by 2000. But these projections are very sensitive to underlying assumptions about future age-specific mortality rates for this group, assumptions which at this point are little more than guesses.
- 3 The argument is not specific to the Canadian experience; it is in fact a general critique of the possibility or desirability of cost containment in any health care system. In Canada the debate focuses on universality and the role of governments because of the obvious success of the public insurance programs in containing costs. But the 'painful prescription' arguments in the US, which allege the inevitability of rationing of access to life-saving and life-improving interventions, have an identical structure, and offer the same grim trade-off between increasing economic strain and accumulating unmet need.
- 4 This is not to suggest that anyone believes age-specific use patterns, or costs, *will* in fact remain constant; almost certainly they will not. But the assumption of constancy enables one to isolate the pure effect of aging per se from all the other factors which might impinge on average per capita use or costs.
- 5 In the zero-growth days of the early 1980s, there was much concern that the future would not be like the past, and that increasing health care costs would have to be funded out of a constant or declining per capita income. But as we emerge from the Great Recession of 1982, historical growth trends are reasserting themselves.

- 6 There are of course other considerations. Categorical programs may bring in the problems of 'means testing' – high administrative overheads, social stigma and low uptake rates, and arbitrary administrative limitations on access – if eligibility status is difficult to monitor. Moreover, universality maintains political constituencies in support of programs; categorization identifies beneficiaries as 'them,' not 'us,' and may lead to progressive erosion of benefits and eventual program emasculation or termination.
- 7 US data in these charts are drawn from tables provided with a press release, 'HHS NEWS,' issued July 29, 1986 by the Department of Health and Human Services, containing preliminary 1985 data by expenditure component, and revised total expenditures from 1978. Expenditures by component from 1980 to 1984 are from Table 2 of Levit *et al.* (1985:1–35); components from 1965 to 1979 and totals from 1965 to 1977 are from Table 2 of Gibson *et al.* (1984:1–29); earlier data back to 1948 are from Cooper *et al.* (1973). Revised GNP data are from US Department of Commerce (1986:17–23), with additional minor revisions to the 1983–5 data provided by K.R. Levit of HCFA, as of August, 1986. Canadian data from 1975 to 1985 are prepublication tabulations of recent revisions and updates made available by Health and Welfare Canada, Health Information Division, as of September, 1986. Data from 1970 to 1975 are from Health and Welfare Canada (n.d. [1984]). Earlier data are from Health and Welfare Canada (1979), and R.D. Fraser, 'Vital Statistics and Health.' (Series B504-B513) in Leacy, (ed.) (1983). Canadian data on National Health Expenditures (NHE) comparable to those for the US were not compiled prior to 1960; the Personal Health Care (PHC) series shown in Figure 1 from 1948 to 1985 includes only costs of hospitals, services of physicians and dentists, and prescription drugs.
- 8 There is, however, a very large difference in the amount which is spent in each system on the costs of administering the payment process. In 1985, costs of prepayment and administration in the Canadian system (including estimated costs of government programs as well as remaining private sector insurance) were \$20.88 per person (CAD) or 0.11% of GNP. The corresponding US figure was \$106.12 (USD) per capita, or 0.66% of GNP. In 1960 the two proportions were almost the same. Thus roughly a quarter of the cost difference between Canada and the US is the much higher overhead costs of running the US system which have developed in the last 25 years.
- 9 Evans (1987:585–616); also unpublished data assembled by U.E. Reinhardt, Princeton University. The recession of 1982 reduced incomes in both countries, but hardly touched either health care sector, thus 1982 saw a sharp jump in the health care share of national income on both sides of the border. The recession also significantly reduced the rate of price inflation, world-wide, including the rate of price inflation in US health care. But the key point is that while all prices are now rising more slowly, US medical prices are still rising more rapidly than the general price level, and by the same or a greater margin.
- 10 Unfortunately the cost savings were almost entirely offset by increases in prepayment and administration costs, from \$14.5 billion in 1983 to \$26.2 billion in 1985, suggesting that this mode of control may be effective but a Pyrrhic victory (Evans, 1987). It is, however, early days yet.
- 11 There are, of course, 'deadweight' costs of administering the program itself, plus potential costs resulting from perverse incentives in the tax or benefit system, but these are of second order or less (Culyer, 1986).
- 12 Canadian Medical Association, *Evidence Presented to the Special Committee on the Federal-Provincial Fiscal Arrangements*, House of Commons, Canada, Minutes of Proceedings and Evidence, Issue no. 10, pp. 10-3 to 10-54 and 10A-1 to 10A-44, Tuesday, May 12, 1981, First Session, Thirty-Second Parliament, 1980–81. This is only the most detailed of a number of claims of 'underfunding' made by physicians' representatives, with the associated argument that more 'private funding' – direct charges to patients with or without private insurance – will remedy the situation. But such claims are commonly unclear as to whether the alleged problem is undersupply of health services, or insufficient incomes for physicians. The most bitterly defended form of 'private funding,' extra-billing by physicians, addresses only the latter issue.
- 13 There is one qualification to this point. Conceivably if public funding were associated with a much larger bureaucratic overhead of administrative and other non-patient care expenses than a private system, the community might not be able, or at least wise, to spend more through the public, tax-financed channel. It is apparently widely believed among providers that this is the case, that the government bureaucracy squanders funds, and is a major contributor to upward pressures on health costs (Taylor, Stevenson, and Williams, 1984). Yet the facts are entirely otherwise – public administration is remarkably cheap (notes 8 and 10 above). By 1985, the multiple funding source US system spent \$26.2 billion, or about 6% of all health costs, on prepayment and administration costs explicitly identified. A great deal more was buried in hospital and medical practice budgets. The corresponding Canadian percentage is just over 1%, for a substantially larger prepaid share of a smaller total health budget.
- 14 The process of apparently unbounded cost escalation which seems to be implicit in professionals' priorities may however contain the seeds of its own destruction. This is suggested by the radical transformations occurring in the US health care system, whose consequences will arguably be harmful to professionals and patients alike. But that revolution is still in progress.
- 15 Interestingly, the assumption is not only that the community *ought* to spend more, but that in fact it would wish to, if not constrained by universality and the misplaced priorities of the political system. This implies a positive, not a normative, critique of the political system, that it fails adequately to aggregate and reflect the priorities of the community, and that professional providers are better

- able to do so. (Alternatively it could be based on the normative judgement that it really does not matter what the community wants; what they ought to get is what professionals think is good for them, which is different in principle but reduces to much the same thing in practice.) One is reminded of Churchill's observation that democracy is the worst of all political systems, except for all the others we know about.
- 16 In this context, it is large markets like the US, Japan, or Germany which matter. Their modes of reimbursement motivate the technology industry, and influence the evolution of 'best practice' medicine, which then is carried over into small markets like Canada.
 - 17 Data are in Barer and Evans (1987), and updated in Evans (1987).
 - 18 In principle, this need not be true. Control of fees could lead, for example, to physicians leaving practice, or emigrating, or to reduced enrolments in medical schools, such that capacity and utilization fell. In the event, this has not happened.
 - 19 Hospital utilization is traditionally measured by separations or patient-days per capita; on these measures utilization has always been and still is higher in Canada than in the US. But the service content, the number, complexity and cost of procedures per patient day, is higher in the US, and the gap has been widening (Barer and Evans, 1987; see also Detsky, Stacey, and Bombardier, 1983).
 - 20 Comparative data on mortality, morbidity, and health services utilization in Canada and the US, and data on the extent of variation in patterns of medical practice in both countries, are extensive but widely scattered through the health services literature. A recent summary of some of the principal comparisons, however, is provided by R.N. Battista, R.A. Spasoff, and W.O. Spitzer, 'Choice of Technique: Patterns of Diffusion in Medical Practices' in Evans and Stoddart (1987). A survey and interpretation of findings on variations in medical practice patterns, with primary but not exclusive emphasis on the US, is Eisenberg (1986).
 - 21 If, however, multiple-source funding under professional direction results in permanent cost escalation, then the logical outcome of non-universality may be eventual corporate control of medicine, and substantially worse conditions for physicians. But that may lie a (lucrative) generation away. The American physicians who fought off national health insurance in the 1960s and early 1970s will be living on their investments by the time (if) their successors are wage-slaves.
 - 22 Both analysis (A. Williams, 'Need: An Economic Exegesis,' in Culyer and Wright, (eds.), 1978:32-45) and US experience suggest, however, that professional priorities of 'meeting all needs,' in a professionally satisfying manner, provide no upper limit to the size and share of the health care system. If so, then in the long run professional control *must* come under external limitations - the trees do not grow to the sky. The only question is whether these limits will reflect priorities generated through the political process, as in Canada, or through some restructured private market, such as the US is trying to create. But the results of these two alternatives are very different; moreover a great deal can happen on the way to the long run.
 - 23 If average incomes are rising economy-wide, physician incomes might fall only in relative terms. But the essential mathematical relationship is unaffected; global cost control implies that an increase in numbers of income recipients must lead to a corresponding decrease in average incomes. And universality as applied in Canada is the most effective form of global cost control yet known.
 - 24 The increased numbers of visits to GPs by elderly people, for example (Roch *et al.*, *op.cit.*), may be described as 'preventive,' though no evidence of their effectiveness is provided, and they are reimbursed without question. But social programs which may be equally effective (or ineffective) in preventing physical or mental deterioration are not included in the concept of 'universality'.

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