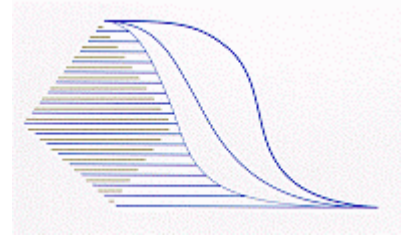


**Centre for Health Services  
and Policy Research**



**Financing Health Care:  
Taxation and the Alternatives**

**Robert G. Evans**

HPRU 00:15D

October 2000

***Health Policy Research Unit  
Research Reports***



THE UNIVERSITY OF BRITISH COLUMBIA



# Financing Health Care: Taxation and the Alternatives

Robert G. Evans, Ph.d.

Department of Economics and  
Centre for Health Services and Policy Research,  
University of British Columbia

October, 2000

An abridged version of this chapter is forthcoming as a chapter in: Mossialos, E., A. Dixon and J. Figueras (Eds.) Funding Health Care: Options for Europe, Buckingham: Open University Press, 2001. The paper has benefited considerably from the editors' comments and suggestions, and draws heavily on work with my colleagues in the Centre for Health Services and Policy Research, and the Population Health Program of the Canadian Institute for Advanced Research. The usual disclaimers apply. Unto Hakkinen very generously supplied the data on Finland that appears in comparison with Canada; he is not, however, responsible for any use or abuse of that data.

The Centre for Health Services and Policy Research was established by the Board of Governors of the University of British Columbia in December 1990. It was officially opened in July 1991. The Centre's primary objective is to co-ordinate, facilitate, and undertake multidisciplinary research in the areas of health policy, health services research, population health, and health human resources. It brings together researchers in a variety of disciplines who are committed to a multidisciplinary approach to research, and to promoting wide dissemination and discussion of research results, in these areas. The Centre aims to contribute to the improvement of population health by being responsive to the research needs of those responsible for health policy. To this end, it provides a research resource for graduate students; develops and facilitates access to health and health care databases; sponsors seminars, workshops, conferences and policy consultations; and distributes Discussion Papers, Research Reports and publication reprints resulting from the research programs of Centre faculty.

The Centre's Health Policy Research Unit Discussion Paper series provides a vehicle for the circulation of (pre-publication) work of Centre faculty, staff and associates. It is intended to promote discussion and to elicit comments and suggestions that might be incorporated within revised versions of these papers. The analyses and interpretations, and any errors in the papers, are those of the listed authors. The Centre does not review or edit the papers before they are released.

A complete list of available Health Policy Research Unit Discussion Papers and Reprints, along with an address to which requests for copies should be sent, appears at the back of each paper.

# Financing Health Care: Taxation and the Alternatives

## 1. Introduction

Modern health care systems cannot be financed from the out-of-pocket expenditures of patients. The mismatch between individual resources and health care needs dictates that the costs of individual care are largely met from the pooled contributions of groups. In principle these groups or “third parties”<sup>1</sup> could take a number of forms – from extended families and voluntary associations, through commercial and “social” insurance programs, up to “the state” at national or regional level. In practice, however, the advantages of scale and the fundamental limitations of private insurance markets have led to the predominance of public institutions. In almost all developed societies, most health care is paid for either by governments, with funds raised from various forms of taxation, or by “social insurance” institutions, largely or wholly outside the commercial marketplace, that impose compulsory levies on all or most of the population.

Diverse forms of out-of-pocket payment by users of care can be found in both types of system, generally accounting for between 10% and 20% of total expenditures in higher income countries. Private commercial insurance plays a still smaller role in overall system finance, covering less than 10% of health expenditures in all but a handful of developed countries (OECD, 1999; Wagstaff et al., 1999).<sup>2</sup>

## 2. A Simple Accounting Framework for Analysis of Health Financing

All financing systems, whatever their structure, can be represented by a basic identity adapted from the fundamental Income-Expenditure Identity of national income accounting. As shown in Figure 1, the total amount raised to pay for health care for a particular population, through whatever channels, must exactly equal the total amount spent on health care for that population, and that in turn must equal the total amount of income earned, in various forms, by those paid (directly or indirectly) from the provision of care. This identity of revenue, expenditure, and income is not a “theory” but a logical necessity, and is fundamental to understanding both the effects of, and the controversies over, all financing and funding systems.<sup>3</sup>

The flows between blocks in Figure 1 can be expressed as follows:

$$TF + SI + UC + PI = P \times Q = W \times Z$$

where TF is the amount of revenue raised through tax finance, SI through social insurance, UC through private, out-of-pocket payments or user charges, and PI through private insurance

---

<sup>1</sup> Historically, considering the patient and the provider of care as two parties to an exchange relationship, the “third party” was the agency that paid the provider’s bill on the patient’s behalf.

<sup>2</sup> These expenditure proportions, however, understate the influence of private financing. Private insurance is sold to the relatively healthy and wealthy, covering a larger share of the population than of its costs. Such coverage. It typically provides preferred access to care, and its purchase may also receive substantial public subsidies.

<sup>3</sup> A good many footnotes are required to account for changes in asset stocks, for resource absorption in the reimbursement process itself, and for international linkages. But these have all been worked out in the literature and practice of national income accounting.

premiums.<sup>4</sup> P and Q are vectors, listing the average prices (P) paid for and total quantities provided/used (Q) of each of the various forms of health care. W and Z are also vectors, standing for the amounts of different types of resources (Z) used in the provision of care, and the rates of payment (W) of those resources. One element of Z, for example, could be nursing hours worked, and the corresponding element of W would be the average rate of reimbursement per hour worked. P and Q, on the other hand, correspond to units of output such as physician visits, surgical procedures, or drugs.

People – individuals or households – are represented only in the lower left-hand box in Figure 1. Providers of care, in this framework, are not people but the organizations – clinics, hospitals, private corporations, etc. -- that are staffed and managed by people, and owned by them either directly or more commonly through various public or private agencies. Funds received by these providers ultimately flow (by payment or attribution) to the people who own, manage, work for, or otherwise supply resources to them. The distributional consequences of alternative forms of health care delivery and finance, the patterns of financial burdens and benefits that are generated, are always borne or received by specific people, not by institutions.

This identity relation holds for the population as a whole – a country, for example – but not for any one individual. Each aggregate amount, such as the total taxes revenue devoted to health care, or the total number of physician office visits, is the sum of the amounts contributed by or attributable to each individual in that population. But some, relatively healthy and/or wealthy, will contribute more than they receive, and others, relatively unhealthy or unwealthy, will contribute less. Similarly some will earn substantial amounts from the health care system, others little or nothing.

Tax-financed (TF) systems are those in which most health expenditure is derived from tax payments –  $TF > SI + UC + PI$  – or at least the TF component is substantially larger than any other. The various questions that one might raise about the behaviour and relative performance of different financing systems can be posed, at a very general level, in terms of the components of this identity relation. Do we find that predominantly TF systems differ more or less consistently from those drawing more heavily on other sources of finance, on some or all of the most significant dimensions of system performance, as reflected in the internal structure of the identity?

The question is complicated, however, by the fact that TF is not a standard process. In principle, “the government” pays for health care out of a general revenue fund into which all “taxes” flow. But most countries have several levels of government, and there is considerable variation across countries in the powers and responsibilities of each. The characteristics of TF vary, according to the degree of involvement of different levels of government. Moreover explicit taxation is only one of the ways in which public authority can be used to direct resources into particular activities. Various forms of “covert” TF, very different in their effects from explicit or overt TF, will be discussed later in the Chapter.

---

<sup>4</sup> Social insurance is compulsory, with contributions based largely or wholly on income, not on risk status. Private insurance may be more or less voluntary, from commercial or not-for-profit firms. In competitive insurance markets, premiums will be based on risk status, not on income.

### 3. Dimensions of Health System Performance

While there are many ways of categorizing the dimensions of health system performance, a reasonable list would include:

- Distribution of system burdens and benefits across the population;
- Allocation of resources to the health care sector, and among its various sub-sectors;
- Technical efficiency of production of health services;
- Responsiveness/accountability of providers of and payers for care, both to patients and to the general population;
- Contribution of health care to health, and the balance among alternative determinants of population health.

An assessment of the strengths and weaknesses of different financing systems under each of these heads would be a monumental exercise, not least because much of the necessary data currently exist in fragmentary form, if at all. Wolfson (1994) offers a comprehensive overview of the information systems that would be required for such a task; no country yet comes close to what would be needed.

Moreover, system performance on several of these dimensions depends more upon how providers are funded than on how payers raise revenues from the population. Providers are organized and paid in very different ways in Finland, the United Kingdom, Sweden and Canada, for example, although all are TF systems. In this Chapter we therefore focus primary attention on the first dimension of performance, the distribution of burdens and benefits, for which there exists considerable comparative information.

Even more cross-national data are available on levels of system expenditure, both per capita and relative to national income. These do suggest some relationship between relative levels of health expenditure and the predominant mode of system finance (see Section 4 *infra.*). But expenditure cannot be taken as necessarily corresponding to the second dimension above, the relative allocation of resources to the health care sector (still less to relative levels of care provision) in different systems. Health expenditures reflect both the quantities of resources drawn into the sector ( $Z$  in the accounting identity) and the rates ( $W$ ) at which those resources are reimbursed.

A nation's health care system may be expensive either because it devotes a relatively large share of its productive capacity to the health sector, or because it pays workers (and/or other resource suppliers) in that sector relatively generously. The former represents a particular allocation of national resources – relatively high levels of  $Z$  and thus of  $Q$ .<sup>5</sup> The latter represents a particular pattern of income distribution – relatively high levels of  $W$  and  $P$ . A costly health care system may provide more care, or wealthier care-givers.

The distribution of the burdens and benefits of a health care system can be represented along three axes:

- Who Pays – and What Share?
- Who Gets – What and When? and
- Who Gets Paid – and How Much?

---

<sup>5</sup> Systems may also differ in technical efficiency, generating different amounts of health care from a given level of resource input. When  $Q/Z$  is relatively low, either  $W$  must also be low, or  $P$  must be high.

## A. Who Pays?

The most clear-cut difference among alternative financing systems is in the way they apportion the total cost of health care among the national population. TF includes this burden within the general tax system; in most high-income countries tax liability is roughly proportionate to income or mildly progressive (e.g. Wagstaff et al., 1999).<sup>6</sup> Higher income people thus contribute, through TF, a share of their incomes that is the same as or larger than that contributed by lower income people.<sup>7</sup> Out-of-pocket payments (UC), by contrast, whether copayments or payments for private uninsured services (UC), are proportionate to the use of care and unrelated to income. Accordingly UC payments for health care make up, on average, a much larger share of the incomes of lower income people.<sup>8</sup>

These generalizations are well illustrated in a couple of North American studies, one in the Canadian province of Manitoba (Mustard et al., 1998a,b) and one in the United States (Rasell et al., 1993, 1994). The Manitoba study is particularly interesting as it links individual-level administrative records from the universal public programs covering hospital and physicians' services, with census records of family incomes and estimated tax liability, for a substantial proportion of the provincial population. The distribution of expenditures and of corresponding tax liability, by income decile (scaled up to the whole provincial population of about a million), is displayed in Figure 2, with the small but expensive institutionalized population as a separate category.

Panel 2a shows the dollar amounts (CAD) spent by the public plans on the care of people in each income decile in 1994; panel 2b shows the estimated amount of tax contributions. Panel 2c shows the difference, by income decile, between total cost of care used and total taxes paid; and panel 2d shows this gain or loss as a share of total family income. (The permanently institutionalized have no significant income.)

The scale of the transfers is quite striking, particularly from the top income bracket, making very clear the advantage to people in that group from lowering the TF share and introducing some form of private payment. But since those with very low incomes are unlikely to be able to bear a substantial portion of the costs of their own care, any shift in financing from TF to private payment would involve a transfer of funds primarily from the middle to the upper deciles of the income distribution.

---

<sup>6</sup> Financing sources are described as progressive, regressive, or neutral, according to whether the share of income that individuals contribute (on average) rises, falls, or remains constant as income itself rises.

<sup>7</sup> Higher income people tend, on average, to make higher out-of-pocket payments for health care (even though ill-health is negatively correlated with income) because they have more money. But the *share* of income devoted to these payments falls, as income rises. (Special treatment for those below some low-income floor may modify this pattern.)

<sup>8</sup> Financing systems have several different distributional effects, though that between incomes classes (vertical equity) turns out to be the most significant (van Doorslaer et al., 1999). The burden distribution *within* classes (horizontal equity) also varies; UC financing distributes that burden according to illness, or at least use of care, and (competitive) PI distributes it according to probability of use – generally estimated from past use. SI systems treat equals more or less equally depending upon the range of different premium and benefit structures. Individuals may also be re-ranked within the income distribution, apart from any changes in the distribution itself.

The Manitoba study focuses only on the public, TF programs. In the United States, Rasell et al., (1993, 1994) analyse, using survey data for the non-institutionalized population only, the distribution by income decile of payments for a more comprehensive definition of health care, through each of the TF, UC, and PI channels. Their results are displayed in Figure 3; panel 3a shows the pattern for the whole population and 3b distinguishes households with heads over and under age 65. The latter are covered, for hospital and physicians' services, by the American version of national Medicare, national, universal and TF.

These findings emphasize the contrast between the progressivity of TF in the United States, and the regressivity of both UC and PI finance. (The similar pattern for both modes of private finance is what one would predict *a priori* in an "efficient" competitive insurance market.) These highly regressive components of the financing mix, widespread in the United States, overwhelm the progressivity of the TF component and make the whole distribution highly regressive. Perhaps surprisingly, however, this pattern is found even among the elderly, covered by the universal TF plan. The very substantial deductibles and copayments, built into the public program ostensibly to control overall costs, contribute to making the overall mix markedly regressive. Individuals can and do buy "Medigap" private coverage for these charges – as they do in France to cover the "ticket modérateur" in the statutory health insurance scheme. But Medigap coverage, being private, is also regressive in its distribution of financing burden (premiums are based on risk status, not income) – as in France.

TF and UC financing thus provide the clearest contrast in "Who Pays?" TF places the heavier financial burdens on those with the higher incomes, while UC places more on those with lower incomes. This fairly obvious difference motivates much of the policy controversy over alternative forms of finance, generating a permanent tension in every national health care system. In addition, of course, TF detaches payment liability from the experience of ill-health, or at least the use of care, while UC links the two directly. Regardless of income level, the sick (healthy) will contribute relatively less (more) under TF than under UC. Financially, extending the scope of UC payment is more advantageous to the healthy and wealthy, and extending TF reduces the share of the burden borne by the unhealthy and unwealthy.

Where PI is widespread (the United States and Switzerland), it generates a highly regressive pattern of burden distribution similar to that of UC finance. Competition in private insurance markets forces insurers to adjust the premiums of enrollees according to their relative risks, which in practice means according to their past claims. Thus PI finance, like UC, links individual contributions to illness experience rather than income; both are highly regressive in comparison with TF.<sup>9</sup>

SI, on the other hand, bases contributions on income, but the income base is not allinclusive and some systems place a ceiling on contributions. *A priori* one might expect SI systems to be more

---

<sup>9</sup> In systems where private insurance is taken out only by the better-off, the premiums themselves are correspondingly distributed quite progressively, as in Germany, the Netherlands, Italy, Portugal or the U.K. But if private coverage enables the better-off to opt out of the general public insurance programs, as in Germany and the Netherlands) the overall financing system become much more regressive (Wagstaff et al., 1999; van Doorslaer et al., 1993 pp. 42-44). In either case private coverage provides access to (actual or perceived) superior quality care, and/or more timely, convenient, and luxurious care. ("Who Gets?" below.)

progressive than private financing, but less so than TF – an early finding of the ECuity (European Community) Project (van Doorslaer et al., 1993).

Further analysis has sustained that conclusion, but with important qualifications. Precisely because TF can transfer a significant amount of purchasing power from the higher to the lower end of the income scale, it inevitably sets up powerful political tensions between the conflicting economic interests of differently placed individuals and groups. These appear to be reflected in observed patterns of financing and of total expenditures, but they emerge in different ways in different national systems (see section 4 below).

Tax finance is predominant among the northern countries, including Finland, Sweden, Denmark, the United Kingdom, and Canada, and in the southern tier – Italy<sup>10</sup>, Spain and Portugal. Figure 4 presents summary estimates of the progressivity or regressivity of total health care funding in these and several other countries (excluding Canada), plotted against the percentage of health expenditure that is TF (Wagstaff et al., 1999). In interpreting these data it must be kept in mind that while the publication is recent, the source data themselves are now a decade or more old. The ECuity Project data provide a very compact summary of the characteristics and consequences of different financing mixes at a point in time, but the systems themselves are moving targets.

While the financing mixes and structures may change, however, the inferences from the ECuity Project about the general effects of different structures should hold up. Thus we may be quite confident that increases over the last decade in direct charges in Sweden, Germany, and the United Kingdom will have increased the overall regressivity of these systems. And we may similarly predict the effects of the reforms currently underway in Italy (Taroni, 2000). Increases in copayments, the introduction of not-for-profit institutions with “fiscal incentives” to insure these and other private payments (as in France), and the expansion of opportunities for private practice should serve to increase the regressivity of the financing system, improve access for those with higher incomes, and increase the expenditures on/incomes earned in the private sector and possibly overall. [We will meet this agenda again below.]

Overall, there *is* a strong positive relation between the proportion of health spending financed from taxation, and the progressivity of total health expenditure. But any statistically fitted relationship would be dominated by the two outliers, the United States and Switzerland, where private spending is both relatively high and very regressive.

If these outliers are excluded, the linkage between tax finance and progressivity becomes less clear. SI systems (low TF) may be either progressive or regressive, depending upon their structure and policies. The key feature is comprehensiveness (Wagstaff et al., 1999). In Germany there is a ceiling on SI contributions, and in both Germany and the Netherlands the

---

<sup>10</sup> Italy is classified in the ECuity Project as having roughly equal parts TF and SI financing. Elsewhere in this study, however, the Italian “SI” share is classified as TF because it is raised through a payroll tax (D’Ambrosio and Donatini 2000). Compulsory contributions to public agencies look very much like taxes, whether or not they are pooled with state general revenues. A similar ambiguity arises with respect to Switzerland where basic private coverage is now compulsory (see note 47 below), leading the OECD to classify that system as predominantly public. The ECuity Project data pre-date this change, but are unlikely to be greatly affected by it.

better-off are permitted or required to opt out and buy private coverage. In France, however, SI covers the whole population, without premium ceilings or floors. The result is actually more progressive than the Nordic TF countries, despite the user charges and the privately-funded *mutuelles*. On balance the ECuity Project data show most TF systems to be more progressive, or less regressive, than most SI systems, but within TF systems there is no clear pattern of system progressivity rising with the TF proportion.<sup>11</sup>

The contrast between the United Kingdom and the three Nordics is striking. All rely heavily on tax finance, but while the United Kingdom has the most progressive funding system of all those reported, Denmark and Sweden are mildly regressive overall. Finland is particularly interesting, having had one of the most progressive funding systems in 1990. The economic and fiscal crisis of the early 1990s led to a sharp reduction in the proportion of TF, a rise in the private share, and a corresponding abrupt move from progressive to regressive.

General taxation was found to be progressive in all countries studied, but much more so in some than in others. These variations are partly a consequence of the tax mix. Tax revenues are raised through both direct and indirect taxation, with the former being consistently progressive and the latter regressive in all countries reported. Countries relying more heavily on direct (indirect) taxation, tend to have more (less) progressive systems overall.

But progressivity of direct taxation also differs across countries. Direct taxes in Sweden and Denmark have a very low degree of progressivity (reflecting the importance of proportional income taxes at local level), in marked contrast to the United Kingdom. Direct taxes in Finland were formerly more progressive, but have become much less so during the 1990s. When weakly progressive direct taxes are pooled with regressive indirect taxes, there is little overall progressivity left. Adding in the effect of direct charges, a small but non-trivial (and growing) component of system finance and highly regressive, yields an overall regressive financing system despite the predominance of TF. In the United Kingdom Wagstaff *et al.* (1999) calculate a high degree of progressivity for National Insurance contributions (included as SI) that offsets highly regressive indirect taxation and aggregates to public financing that is much more progressive overall: this was also true of Finland before the crunch. The ceiling on National Insurance Contributions, however, makes this source quite regressive in the upper income deciles (Glennerster, 1997, p. 129).

In general, among the countries studied in the ECuity Project the extent of reliance on TF appears to be inversely related to the progressivity of the tax system. Sweden and Denmark, relying heavily on direct taxes, have relatively little progressivity in their direct tax structure. The United Kingdom, with more progressive direct taxes, increased the share of regressive indirect taxation in its tax mix from 43.2% in 1985 to 53.9% in 1993.<sup>12</sup> These three countries (along with

---

<sup>11</sup> The picture appears clearer in van Doorslaer *et al.* (1993, p. 44) and Klavus and Hakkinen (1998, Figure 2). But the earlier data (Wagstaff *et al.*, 1992) have been revised in Wagstaff *et al.* (1999), moving France onto the progressive side. Also, between 1980 and 1990 Portugal shifted about ten percent of its total health costs from TF to UC, to become the ECuity Project country with the highest UC share. While still predominantly TF, its overall system is now about as regressive as Germany's.

<sup>12</sup> This was part of a broader budgetary program, during the late 1980s, that sharply reduced the redistributive role of government so as to increase overall economic inequality (Atkinson, 1999).

Spain and Italy) had the least progressive systems of general taxation of all countries studied.<sup>13</sup> By contrast the countries with the most progressive systems of general taxation – the United States, Switzerland, the Netherlands, and Germany – make least use of TF to support health care.

This pattern is strongly suggestive of a political compromise in the conflict of economic interest between the healthy and wealthy, and the unhealthy and unwealthy, where “What’s lost upon the roundabouts, is made up on the swings.” That conflict exists in every financing system, but the terms of the compromise vary across countries not only in the extent of redistribution, but also in the balance of financing sources through which it is achieved. A political coalition in support of TF can be assembled and maintained, so long as the redistribution is not too extreme.

The ECuity Project estimates suggest that the considerable egalitarian potential of TF is in practice much more limited. But limited is not negligible. There is a sharp contrast between the TF systems, and the highly regressive distribution of the overall financing burden in those systems drawing heavily on private finance. SI systems, on the other hand, can go either way, depending on how they are structured.

Canada might appear to be an exception, combining both TF and relatively progressive general taxation. But the universal public insurance plans cover only hospital and physicians’ services. Other forms of health care – drugs, dentistry, much of non-hospital long-term care – are covered through a patch-work of provincial and private insurance plans, partial in their coverage of both the population and their costs. The proportion of total health care costs paid out-of-pocket, 16% in 1997, was almost the same as in the USA at 17%. The proportion of private funding in Canada, now over 30%, is one of the highest in the (pre-expansion) OECD.<sup>14</sup> This observation is again consistent with a political tradeoff – quite progressive TF, but covering a smaller share of the health care system.

#### Who Pays for Fiscal Crisis? Finland and Canada

The political tension suggested in the cross-sectional data over who should pay how much of the health care bill emerges very clearly in the experience of particular countries at and after times of severe economic strain. Finland and Canada both went through fiscal crises at the beginning of the 1990s, and in both countries the TF component of the health care system suffered substantial budget cuts. The result in both countries was a very significant shift in the pattern of health care funding sources, leading to a more regressive distribution of the total burden. But in Finland this appears to have been a deliberate shift of policy while in Canada it was a side-effect of the concentration of TF in particular care sectors. The parallels and contrasts in outcome – so far – illustrate the strong link between income distribution and TF, and the corresponding inevitable recurrence of political conflict.

---

<sup>13</sup> Spain, in increasing its TF share, also increased the role of highly regressive indirect taxes, such that the progressivity of its overall tax system fell somewhat further. Italy, on the other hand, has a moderately progressive tax system if the payroll tax classed as “SI” is included in taxation.

<sup>14</sup> The recent expansions to the OECD have added a number of countries, particularly the formerly socialist economies, whose health care systems are not at the same stage of development as those of longer-established members of the “Club”. Anderson *et al.* (1999 and 2000) present data for a subset of twenty-three countries for which 1960 health expenditure data are available; only nineteen have a continuous series from that date (OECD, 1999).

At the beginning of the 1990s the Finnish economy went through a major contraction. Real (inflation-adjusted) national income per capita fell by 13.2% between 1989 and 1992 (OECD, 1999). The national government budget went sharply into deficit – by 1993 nearly half of expenditure was being met from borrowing – and public debt rose rapidly. Health spending was at first sustained; its share of the falling GDP ballooned from 7.4% in 1989 to 9.3% in 1993. But between 1991 and 1993 health spending was slashed by an extraordinary 17.6% (per capita real); its share fell back to under 8% by 1994 and has dropped further as the economy has recovered (OECD, 1999).

The pattern of funding sources, however, was also dramatically changed over this period, and the time-path of these changes is of particular interest. Faced with fiscal “meltdown”, the Finnish national government reduced its contributions to the municipalities for health care but permitted them in turn to raise user charges to patients – which they did (Klavus and Hakkinen, 1998). From 1989 to the trough of the recession, state contributions fell from 37.2% to 31.7% of total health expenditure, and the out-of-pocket share rose from 12.6% to 20.1% (Table 1). In effect each level of government passed part of its fiscal problems on to others.

But as the economy began to recover, the national government share kept on falling. At the trough, the national government covered 16.8% of national health spending from tax revenue, and borrowed to support another 14.9%. Four years later, in 1997, real per capita GDP had recovered to and exceeded its 1989 level, and the deficit had been almost wholly eliminated. But the share of (now increased) health spending financed by the national government had fallen to 20.7% – just over half its 1990 level. The biggest drop occurred *after* the recession – during the recovery. This fall of ten percentage points in four years was made up by a corresponding increase in the shares from both local taxes and SI premiums – 46.6% to 55.3% – there was no further increase in the private share.

The increase in the private share between 1990 and 1993 would be expected to reduce significantly the progressivity of the overall funding system – and it did. Klavus and Hakkinen (1998) estimate a decrease in the Kakwani index of progressivity (Wagstaff et al., 1999; Kakwani, 1977) from .024 to .005 – from mild progressivity to virtual proportionality – between 1990 and 1994. But the subsequent shift in financing sources from national to local taxes and SI might have reversed part of this change, as these sources are estimated to be more progressive, in Finland, than the national tax system with its high proportion of indirect taxes.<sup>15</sup>

This did not happen, because *each* of the public revenue sources became markedly less progressive/more regressive after 1994. Overall, the Finnish health care financing system was regressive by 1997, and indeed had moved more rapidly in that direction during the recovery than it did during the economic crisis. (The Kakwani index fell from .005 to -.039 (Table 2)).

---

<sup>15</sup> The regressive effect of the increase in private funding was somewhat mitigated by the elimination of the tax expenditure subsidy (TES) for private health care payments in 1992 (Klavus and Hakkinen, 1998). While in general a shift from TF to UC financing increases the overall regressivity of a financing system, the “covert” form of TF embodied in a TES (see section 5A below) tends to be itself highly regressive.

Between 1990 and 1996, Finland went from having the most progressive financing system in the Nordic countries, to what appears in Figure 4 as the most regressive.<sup>16</sup>

Faced with fiscal crisis, Finnish national and municipal governments acted to shrink expenditure on health care and to place a larger share of the costs on users. But they also chose, during the recovery, to shift more of the burden of public payment onto those with lower incomes. These were political choices. The fiscal crisis clearly forced the national government to make very unpleasant sacrifices, and the health care system could only have been protected – if at all – at the cost of even more severe dislocations elsewhere. And the national government passed some of those difficult choices to the municipalities. But there was room for discretion as to how the burden of the necessary fiscal adjustments would be distributed across the population. And there was certainly room for discretion after the crisis passed.<sup>17</sup> All three policy shifts – cutting health spending, increasing private payment, and increasing the regressivity of revenue sources – placed the burden of adjustment disproportionately on the less healthy and the less wealthy.

Like Finland, Canada entered a major recession at the end of the 1980s. GDP (real, per capita) fell, and government deficits ballooned. The immediate crisis was much less severe than in Finland, but came after a decade of slow growth, continuing government deficits, and steadily rising public debt. The Canadian economy had never fully recovered from the recession of the early 1980s, and government fiscal positions were still very weak when the new crisis hit.

Amid rumours of provincial bankruptcies and talk of “IMF takeover”, the federal and provincial governments introduced major spending cuts, including cuts to the TF components of health care and especially to hospitals. The federal government significantly reduced its contributions to the provinces, as in Finland. But in Canada the federal “prohibition” on provincial imposition of user charges was *not* removed, so that provincial governments were not able to transfer some part of their fiscal problems onto patients.<sup>18</sup>

The health expenditure share of GDP, which had jumped from 8.6% to 10.0% between 1989 and 1992, fell back to 8.9% by 1997 (Canada, Canadian Institute for Health Information, 1999). Public spending (per capita, nominal) on all forms of health care was virtually unchanged between 1992 and 1997. But while governments reduced their spending on hospitals and physicians’ services, they continued to provide full comprehensive first-dollar coverage for these services, without charges to users.<sup>19</sup>

---

<sup>16</sup> Hakkinen’s calculations, however, are for 1996, much more recent than those reported in Wagstaff *et al.* (1999), and the other Nordic systems may well have become more regressive during this period.

<sup>17</sup> Klavus and Hakkinen (1998), writing in 1996, take a relatively sanguine view of Finland’s weathering of a very severe crisis, observing that the shift from progressivity to proportionality in 1994 was explicable solely by changes in the financing structure, and that the individual revenue sources themselves actually became slightly more progressive. This view now seems premature.

<sup>18</sup> Canadian provinces are not, however, analogous to county or municipal governments in the Nordic countries. Constitutionally they share sovereignty with the federal government, having shared or exclusive jurisdiction in a wide range of areas, including health. The federal government thus has no authority to require or forbid any provincial action in this field, though it can and does use financial inducements with considerable effect.

<sup>19</sup> There *has* been some transfer of costs from public to private budgets. The shortening of hospital stays, and the shifting of patients from acute inpatient care to day surgery, long-term care, and home care has exposed patients to a number of different forms of user charges as well as increasing non-monetary costs. Some provincial governments have increased user fees for those forms of care which they cover (variably and partially) outside the federal-

In the sectors *not* covered by the universal public plans, however, costs – both prices and quantities – continued to rise. The escalation of pharmaceutical costs has been especially rapid. Effective cost containment in the TF sectors alone led to differing sectoral growth rates, such that the private share of health spending rose sharply from 25.8% in 1992 to 30.6% in 1997. This will have increased the overall regressivity of health care funding in Canada; an increase in spending on drugs has also contributed to the increased regressivity in Finland. The private share of health spending remains much higher in Canada; it began the 1990s about twice as high and by 1997 was still about fifty percent higher than in Finland.

Nor is the story over. The constraints on public budgets have re-energized the advocates of more private funding for hospital and physicians' care, both providers seeking greater income opportunities and wealthier citizens seeking to improve their own access to care while transferring more of the payment burden down the income spectrum. The federal and most provincial governments have regained fiscal health, and increased funding is again flowing to the public system, but the conflict over funding sources has never been more intense. Claims of shortages play a central role in this conflict, even though the period of budgetary cuts in the public sector was accompanied by significant increases in productivity – as it was in Finland as well.

It is at least possible that the rapid distributional changes seen in Finland might occur in Canada over the longer term. Experience in both countries suggests that the “aftershocks” of fiscal crisis and of cuts to TF health care may create even greater opportunities for regressive shifts in the financing structure than does the crisis itself. There is no question but that the period of crisis and cuts is being used opportunistically by economic interests in and outside Canada to advance a broader regressive agenda.<sup>20</sup>

## B. Who Gets – and When?

The experience of TF systems over the last decade underlines the continuing tension that they embody between the economic interests of the healthy and wealthy on the one hand, and those of the unhealthy and unwealthy on the other. Even proportionate or mildly regressive TF systems redistribute substantial sums, because the experience of illness and therefore the use of services (in the absence of financial barriers) is so much more regressive. Pressures for more private funding, for a shift of financing mix from TF to UC, with or without private insurance, are

---

provincial programs – drugs, long-term care, and eyeglasses and appliances. And physicians have been searching more energetically for ways to charge patients for “enhanced” non-insured services. So far, these amounts are small. But it is worth noting that wherever they may do so without a reduction in federal grants, provincial governments in Canada have behaved as the Finnish municipalities did – shifting costs from taxpayers to users of care.

<sup>20</sup> Opponents of the TF system are focusing their attack on two points, the federal fiscal penalties for provincial governments that permit user charges for publicly insured services, and the legal prohibition on private insurance for these services. The two are obviously linked – without user charges there is nothing to insure, and without insurance the scope of user charges will always be limited. But with both, there would be nothing to stop a rapid drift toward a US-style mixed funding system – with substantial covert TF, see section 5A below – and a substantial redistribution of costs, incomes and access to care.

therefore a permanent feature of any TF system. The arguments change little over the decades, and the underlying economic interests change not at all.<sup>21</sup>

TF systems seem to be particularly vulnerable to these pressures, however, in times of general fiscal crisis. It is not difficult to understand why, when general incomes are falling, citizens should be resistant to more taxation and governments should therefore respond by imposing tighter controls on public spending, including health spending. But why these cuts should be associated with a shift in the redistributive compromise, more intense and more or less successful efforts to transfer the burden of payment both down the income distribution, and from the healthy to the sick, is not so obvious. The answer may be found in exploring the next two distributional questions – Who Gets? and Who Gets Paid?

In principle, TF and SI systems both answer the former question: “Those who need care, get it – what they need, when they need it”. Ability to pay is the basis for determining individuals’ contributions to the financing of health care, but not their entitlements to receive it. “Need” for care is, however, typically defined implicitly, as whatever a qualified practitioner chooses to offer and a patient to accept. (“Ability to pay” by contrast, has a concrete expression in specific revenue-raising measures.) And the stability of the political coalition supporting the financing compromise, particularly in TF systems, depends upon the credibility of this public commitment to “meet needs” thus defined.

The wealthy will always be better off (in strictly economic terms) in a system with more private financing. They have the resources to meet their own needs, and the less they have to contribute to support that of others, the better. The unhealthy and unwealthy can be counted on to oppose private financing, which confronts them with either very heavy financial burdens or some degree of exclusion from care. What is critical is the attitude of the broad middle group of the population, for whom the price of social solidarity – the discrepancy between what they pay and what they get – is on average much less than for the wealthy. For many it will turn out to be negative – the insurance motive is for them also very real.

But the TF system *must* (be perceived to) meet their needs. If people in the middle band of the income distribution begin to feel that the public TF system is no longer providing them with access to high-quality care, they will begin to look elsewhere. In “two-tier” TF systems such as the United Kingdom or Australia, coverage in the public system is universal, but patients who have the necessary resources can offer private payments for care that is more timely, convenient, or perceived to be of higher quality.

Doctors who “work both sides of the street” practising both in the public system and privately, can then manipulate waiting times and patient perceptions of quality so as to encourage these private payments. The opportunities for enhanced incomes through private charges can

---

<sup>21</sup> The arguments for increasing UC and PI are typically separated from those for reducing TF. Private financing is put forward as a way to expand system capacity, and provide more “desperately needed” health care. Yet the individuals and organizations putting forward these arguments tend to be the same as those who advocate lower taxes and “smaller government”. How this could be achieved without cutting public spending on the largest single component of public budgets, is not made clear. In practice, when governments have been forced by fiscal crisis to cut public spending, they have cut health care.

progressively undermine access in the public system, as appears to have happened for ophthalmologic and orthopaedic surgery in the U.K (Robinson, 1999 p. 67). The higher returns in private practice lead surgeons to limit both the time and the effort they commit to meeting their obligations in the public system, thus increasing the pressure on patients to offer private payment.

But even if practitioners are not able to work in both systems, private payments in the form of user charges within the TF system may serve to reallocate access to care when supply is (perceived to be) inadequate. Since such charges primarily deter those with lower incomes, they *improve* access for those most able to pay.<sup>22</sup> If user charges also draw in additional funds to support increased supply – “to meet needs”, as commonly claimed – they do so in a much more regressive way than would an increase in either TF or SI funding.<sup>23</sup>

For those with the necessary resources, any form of partial out-of-pocket payment in a predominantly TF system purchases preferred access to a service primarily paid from the taxes of others. So long as adequate access is perceived to be available for all, few are likely to be willing to pay for preference. But if a significant proportion of the population come to believe that the care provided through the TF system is inadequate or inaccessible and that their health is being put at risk, the political support for private funding could build quite rapidly. Fears that “The (public) system will not be there when I or my family need it” become a very powerful reinforcement to the permanent economic interests favouring the expansion of private payment.

Such concerns, justified or not, readily arise when public financing for health care is being cut. The public perception is that whatever level of servicing was previously provided, must have been needed, and that less money must mean fewer and/or poorer quality services. OECD countries maintain modern health care systems, and high levels of health in their populations, at very different levels of expenditure. Analyses of cuts in hospital funding and capacity in particular have shown little or no detectable effect on patient throughput, let alone outcome. But these observations have no effect on public anxiety (Roos, 2000).

### C. Who Gets Paid – and How Much?

As the identity in Figure 1 emphasizes, the aggregate of incomes earned from the health care system is exactly equal to total health care expenditures. When health spending ( $P \times Q$ ) is cut, so are incomes ( $W \times Z$ ). Jobs are lost, and/or rates of reimbursement (wages, profits, and other forms of income) fall. This will be true regardless of whether such cuts have a massive or a negligible impact on either servicing levels or patients' health. Thus, all those who draw their incomes from the health system, whether as wages and salaries, as professional fees, or as shareholder profits from corporate enterprises, have no economic interest in doing “more with

---

<sup>22</sup> Despite the routine assumption of many economists, there is in fact no evidence to support the presumption that user charges lead to lower *overall* system costs. In fact depending upon their form, they may very well lead to increased costs through higher overall prices. But that is not at all to say that patients do not respond to such charges. They do, and those with lowest incomes are most likely to be deterred (Newhouse 1993, see also Barer *et al.*, 1998).

<sup>23</sup> In countries where there is simply no capacity to mobilize tax revenues, informal payments occur regardless of policy. Under these circumstances there might be a rationale for explicit private payments (see Lewis and Mills & Bennett this volume); where TF is impossible some forms of UC might be preferable to others.

less”. To the contrary, they have a direct economic interest in insisting that “Only more is more”.

The identity of expenditure and income explains why claims of “underfunding”, sectoral or system-wide, are a major part of the continuing political theatre of all health care systems. They may be more intense, and are certainly more focused, in TF systems because they serve as the primary tool for extracting more funding from public payment agencies. Funds so extracted may be used either to enhance services or to increase rates of remuneration for those who produce the services, to raise Z and Q, or W and P, although the public claims will always focus on Q, on alleged needs for more and better services.

To identify underfunding claims as “political theatre” is not to imply that the level of resources available to the health care system does not matter. Clearly it does – health services do contribute, very importantly, to health, and the production of those services Q requires real inputs Z, whose owners must be paid for their use. But *allegations* of underfunding, coming from those who are or hope to be paid for their services, bear no discernible relation to the adequacy or effectiveness of a health care system, and certainly not to its level of funding. They are pressed as energetically in Canada, for example, as in the United Kingdom, and always have been, even though health spending per capita (converted to USD using all-economy purchasing power parities) is over fifty percent higher in Canada (\$2175 compared with \$1391, OECD, 1999). If the allegations were not income-driven, one might expect concerns about the effectiveness or appropriateness of the care being provided, or the efficiency of its production, to be pressed with equal vigour. They are not.

The relative parsimony of the UK National Health Service might lead one to expect that there, if anywhere, underfunding claims could be validated. But attempts to determine if the NHS is underfunded have led only to the conclusion that there is no satisfactory answer (Dixon et al., 1997). Conclusions may be reached and acted upon at the political level – in both the United Kingdom and Canada there seems now to be a consensus that the health care system is seriously underfunded (albeit at very different funding levels!). But this has more to do, in both cases, with the success of the political theatre staged to manipulate public opinion (Maynard, 1996).

In “normal” economic times, when rates of economic growth generate sufficient tax revenue to support a continuing increase in funding in the TF health care sector, the “underfunding” claims emerge from a background of broad system support. The attitude in a number of TF countries seems to have been: “This is a great system – maybe the best in the world – *but* it needs more money to meet still unmet needs, and to keep up with new technology, and population ageing and...” More money is essential to maintain the excellence achieved.

But when funding levels are actually being cut, and people are losing jobs as well as suffering reduced wages and profits, the tone of the underfunding claims shifts dramatically. The “continual, deafening chorus of complaint” that Enoch Powell, a former Minister of Health in the United Kingdom, described as “ris[ing] day and night from every part of [the National Health Service]” (Powell, 1976, p. 16) grows in volume and shifts to focus on lengthening waiting lists and increasing numbers of horror stories. The whole TF system is alleged to be in danger of collapse.

Whatever the actual state of affairs, the experience of expenditure/income cuts in a major sector such as hospitals can lead to “medical terrorism”. Feeding public fears is, however, a two-edged sword. It puts pressure on governments to supply more public funding. But it also encourages patients to look for private payment options. If inadequately funded TF is really collapsing under the weight of escalating demand or need, increasing numbers of patients will react with “Me first! I’ve got the money!”

There is an unfortunate asymmetry between the political theatre of TF and that of private care. Those whose work is paid by TF must negotiate for more funding primarily by emphasizing publicly the inadequacies of the health care system, whatever they may say in private. Those funded by private payments, by contrast, attract more funding by alleging the excellence of their work – essentially advertising. Private providers must puff their products; public providers must denigrate theirs. So long as funding is flowing steadily into the public system, this “denigration” is more likely to take the form of emphasizing how much better the system could be, if it only had more money. But when funding is shrinking, the public claims shift from marketing hope to marketing fear – a process that may undermine the TF system itself.

Nor are provider responses limited to negative publicity. Various forms of “job action”, delays and limitations on access, up to and including full-blown strikes, are used by both unions and professional associations in both TF and SI systems to inconvenience and frighten patients, and so put pressure on governments to increase funding. But in the process, such activities may also generate public support for private funding alternatives to TF. Freed from the constraints of public sector bargaining, some providers would then be able to charge higher fees and expand servicing opportunities in the private sector – serving those able to pay.<sup>24</sup>

The distributional dynamics of both incomes and access to care, in times of fiscal crisis, are well illustrated by the recent Canadian experience. Actual funding cuts have led to increasing public unease as to system adequacy (“Who Gets?”), strongly encouraged by intense criticism from those who have lost jobs and incomes (“Who Gets Paid?”). These reinforce the arguments of those economic interests permanently arrayed against TF under the heading “Who Pays?”<sup>25</sup> The result has been a precipitous drop in public satisfaction with the health care system, and an almost universal sense of “crisis” -- among the general public. Those who have actually used the system continue to report relatively high satisfaction levels, and hospital use and outcome data show no deterioration (Roos, 2000).

This process seems quite adequate to explain a general tendency for TF systems to shift more toward private payment in times of fiscal crisis. What is less clear is whether they might later move back when the fiscal situation improves?

---

<sup>24</sup> Private markets also withhold services from those unwilling or unable to pay what providers demand, as in the U.S. health care system. But the withholding is limited to a small (though growing) proportion of the population who have neither insurance nor personal resources – nor significant political influence. Currently, about 45 million Americans are estimated to be uninsured; the number may increase to 60 million -- over 20% of the population -- by 2008 (Iglehart, 2000). In TF or SI systems provider “job actions” affects all or most of the population, and thus have greater political effect.

<sup>25</sup> An exogenous factor has been the control of most of Canada’s newspapers, over this period, by a single individual of extreme right-wing views who quite openly used his position to try to influence public opinion against public programs, taxes, and government activities in general. But such media bias is not unique to Canada.

User charges introduced within a public system can later be removed if the ideological balance shifts and fiscal circumstances permit. But the establishment of private markets for care, outside the TF system (and particularly if supported by private insurance) may be a one-way street. Supplier interests thus established are much more difficult to displace. Where such markets exist, their participants – both those who pay and those who get paid – make up concentrated, self-aware, well-organized and well-resourced interest groups. Moreover the patients of private care tend in every country to be disproportionately members of the political and business elites, who after all have the money as well as the political influence.

#### **4. Understanding the Interests in the Link between “Who Pays?” and “Who Gets Paid?”**

This political reality points to the parallel between the economic interests of the healthy and wealthy, and those of a subset of providers. Private markets not only place a heavier share of the financing burden on those at lower incomes, they also increase total expenditure on health care, and thus the incomes generated from its provision. SI systems show a more intermediate position, providing greater leverage for public regulation than private markets, but less direct cost control than that available through public budgets.

The two OECD countries relying most heavily on private financing, the United States and Switzerland, had in 1998 the most and third most expensive health care systems, absorbing 14.0% and 10.2% of their nations’ GDP, respectively (Anderson et al., 2000).<sup>26</sup> The US ratio has been relatively stable since 1992; the Swiss has risen steadily since 1960 to reach its present level. The German and French SI systems currently occupy the second and fourth rungs of this ladder, at 10.6% and 9.6% (ibid.). But there is some overlap – Canada at 9.3% outspends a cluster of SI and TF countries at about 8.5%.<sup>27</sup>

Yet little or no evidence exists to show a link, at least among relatively wealthy countries, between health spending and health status.<sup>28</sup> There is no basis for the common, often implicit, assumption that increased spending is necessarily associated with increased levels of effective health care, appropriately provided, and thus to improved health outcomes. Indeed insofar as expenditure differences reflect differences in prices charged rather than volume or quality of services – the P rather than the Q in the identity – one would not expect such a link. Higher prices yield higher incomes in the health sector, or reflect lesser efficiency in the production of

---

<sup>26</sup> This refers to a subset of the current OECD membership (see note 14 *supra.*); some of the more recent entrants have lower expenditures and higher private shares.

<sup>27</sup> Canada’s continuing relatively high ranking is related to the fact that it has a relatively high proportion of private spending, even though public coverage for acute care hospitals and physicians’ services is nearly 100%. If between 1992 and 1999 private sector expenditures in Canada had risen only at the same rate as those in the public sector (15.1%), rather than the actual 44.8% (Canada, Canadian Institute for Health Information, 1999), Canada would now also be spending about 8.6% of its GDP on health care.

<sup>28</sup> Anderson et al. (2000) address specifically the question of whether people of the United States receive any additional health benefit from spending more than twice as much, per capita, as the citizens of any other developed nation. They conclude that “...Americans may, on average, enjoy better results from their health care system than do residents of other countries whose health spending per capita is lower.” But they emphasize the very limited and fragmentary nature of the data on comparative outcomes, and the ambiguity of such data as exists. Most of the large difference in spending between the USA and all other countries can in fact be traceable to higher prices, reflecting lower efficiency (especially in the payment system) and higher (relative) provider incomes.

care. Since the definition, let alone the measurement, of benefit from health spending in different national systems is so problematic, in contrast to the clear and exact accounting link between spending and incomes, we focus here on the latter.

These expenditure rankings have changed over time, and surely will again. While some TF systems – the United Kingdom in particular – have always been relatively inexpensive, others such as Canada and Sweden have in the past been at or near the top of the rankings for extended periods. Each country has its own institutional history, and a formal statistical analysis is as likely to be misleading as helpful. What the OECD experience suggests, however, is that TF systems do provide more public control over health spending, both in short-term crisis and when long-term priorities change. How that control is exercised depends upon political considerations specific to time and place.

Finland provides a particularly dramatic example of response to acute economic and fiscal crisis, with a massive slash in spending in one year. In Canada, spending in the TF sectors went down markedly between 1992 and 1997 while continuing to climb in the private sector. In both countries, the cuts brought the ratio of spending to GDP back close to its pre-crisis level.

Throughout the (then) OECD world, however, there was after the mid-1970s a shift in public priorities toward increasing cost control in health care. More limited economic prospects, plus increasing scepticism about the benefits of ever-expanding spending, were combined with widespread recognition of Wildavsky's (1977) Law of Medical Money ("costs will increase to the level of available funds . . . that level must be limited to keep costs down"). Various administrative mechanisms were introduced through which to apply countervailing public authority (Abel-Smith 1992; Abel-Smith and Mossialos 1994), sufficiently similar as to be labelled (White, 1995) "the international standard". These mechanisms brought about a significant and quite rapid reduction in the growth of health spending in most OECD countries.<sup>29</sup>

TF systems seem to have had the greater success – as indicated by the current national rankings. Several countries have since 1990 actually lowered the share of GDP going to health care (Anderson and Poullier, 1999), and all are TF countries. In addition to Finland and Canada, this ratio fell in Denmark, Ireland, Norway, and Italy. Sweden's ratio peaked at 9.6% in 1982; four years later it was 8.7% and has remained there. Historically, Germany provides a leading example of cost control in an SI system. Very rapid cost escalation was brought sharply under control through regulatory legislation in the mid- 1970s. But Germany in the 1990s is another story.

TF systems are clearly not consistently less costly than others; during the 1970s several such systems were among the most costly in the OECD. Rather they appear more responsive to public priorities – at least as filtered through the national political system – when these require cost control or reduction. (When more is to be spent, any health care system will oblige!) TF combines in one authority both the incentive and the capacity to contain costs, to a greater degree that is possible in any of the other financing mechanisms.

---

<sup>29</sup> See esp. Exhibit 4 in Anderson et al. (2000) covering twenty-three OECD countries (and note 14 *supra*).

This control, however, comes at a political price in both public dissatisfaction and intensified provider criticism. There is always pressure from “those who get paid” for continually expanding system costs; when these interest groups are able to attract broad public support they are difficult to resist. Severe fiscal crises both motivate governments to impose the tighter controls that TF makes possible, and enable them to mobilize the necessary public acceptance – for a time. But severe constraints exact a further price in erosion of public support for TF itself, and the spread of more regressive private financing both within and alongside the TF system. The redistributive compromise is never permanently settled, and in times of strain it is reopened.

Cross-national surveys suggest that public satisfaction may be related to absolute levels of spending for health care, though the evidence is mixed.<sup>30</sup> But there is no doubt that, whatever the amount spent, any reduction or even cessation of growth leads to political difficulties and efforts to open up other sources of finance. It would appear that “adequate” funding for health care is defined, at least by providers, in terms not of any finite level of spending but of the rate of change.<sup>31</sup>

TF thus provides those who are paid for health care, a share of national income that is not only smaller than in other systems, but is potentially more vulnerable to changes in political priorities. Their responses include not only continuing pressures to maintain the flow of TF financing, but also efforts to modify the financing structure itself so as to make it less sensitive to shifting priorities.

One suggestion periodically brought forward is “hypothecation” -- the dedication of revenues from a particular tax or basket of taxes, solely for the purpose of funding health care. The intent is to assure the health care system a stable and growing revenue base outside political control. But the advantages of hypothecation seem to be more apparent than real.

Cosmetic hypothecation, describing a particular tax as a “health tax”, might have political advantages in reducing taxpayer resistance, insofar as spending on health care seems to be popular in all countries. But if the designated taxes (or “premiums”) go into general revenue, then the label means nothing. Segregating the revenues in a special fund to pay for health care is equally meaningless, if shortfalls (surpluses) are made up from (absorbed into) general revenue. Real hypothecation requires that revenues from the dedicated taxes actually *determine* health expenditures, or more accurately that spending and tax rate decision are made so as to equate the two.

---

<sup>30</sup> The ten-country survey reported by Blendon et al. (1990) showed an almost linear relation between reported satisfaction levels and spending per capita, with the outstanding exception of the United States where spending was highest and satisfaction lowest. But subsequent results for five countries (Donelan et al., 1999) show a very clear relation between plummeting satisfaction levels and funding cuts, with relatively high satisfaction in the United Kingdom where funding was by far the lowest but seemed poised to increase.

<sup>31</sup> Even in the United States, where health spending reached 14% of national income in 1992, the subsequent stabilization at that level has been associated with widespread dissatisfaction. But because the limitations on access have been imposed only on a portion of the population – those in “managed care” programs and the increasing numbers with no insurance at all – the political impact has been limited, Private systems fragment and diffuse public unhappiness, providing it no focus or point of leverage.

The tax source would thus have to be large, stable, and growing in line with national income (preferably faster). Yet this is exactly the sort of revenue source that no government would want to give up. The arguments for hypothecation within the general revenue base seem to point more strongly towards SI financing outside government general revenue,<sup>32</sup> and indeed SI systems do seem on balance, to offer providers the benefit of greater expenditure (Normand & Busse, this volume). (SI also offers the possibility of significantly enhanced regressivity of financing, if that is part of the objective.)

But governments cannot, in reality, escape ultimate accountability for the use of public funds, whatever label be put on the taxes. Hence the popularity, among providers, of supplementary private finance as a “safety valve” through which they can draw in additional funds to protect their incomes against “underfunding” through TF. “Those who get paid” are not, however, a homogeneous group in this respect. Some see much greater potential opportunities in private markets; others quite rightly fear erosion of TF as a threat to their jobs and incomes. Private financing may generate higher expenditures/incomes overall, but the rising tide does not lift all boats.

Private insurers, and all who make their livings from the multitude of administrative functions that this requires, are the most obvious beneficiaries from increases in private financing. The high administrative overheads associated with private coverage are the sales revenue of this industry, and the source of its wages and profits. In TF systems, more administratively efficient, these costs and corresponding income opportunities do not exist.<sup>33</sup>

The growth of large “managed care” companies in the United States, now becoming increasingly active internationally, has added another entire layer of administration and costs/sales, over and above the costs associated with insurance *per se*. But they require a private system to manage; to develop markets they must restrict or roll back the extent of TF. (Covert TF (see next section) is, however, very much to their advantage.)

But to the extent that TF systems have, through monopsonistic bargaining, held down provider fees and prices, one finds corresponding pressure from care providers to open up private

---

<sup>32</sup> Indeed an SI system is in fact a form of hypothecated tax.

<sup>33</sup> For a private insurer, the difference between premiums received and claims paid is recorded as “prepayment and administrative expense” (PPA); in Canada for example these amount to about 15% of premium revenue compared to administrative costs in the TF system of about 2%-3%. (The proportion of premium revenue paid out as claims is known by private insurers as the “loss ratio”, which is to be kept as low as possible. This neatly inverts one of the criteria for a good public system, that it keep *down* the outlays for overhead expense.)

System-wide administrative costs are included in the OECD database, but these are unfortunately too incomplete to be very helpful. (They do, however, suggest the costliness of having a multiplicity of insurers; the share of total health expenditures spent on PPA reported for Germany – 6.5% - 7% – is over four times that of France, and even exceeds the reported US share). In any case, PPA represents only a part of the cost of private coverage; there are also extra administrative costs for providers if they must negotiate with numerous insurers providing highly variable and shifting coverage. The United States furnishes the extreme case, with over a hundred billion dollars, at least ten percent of all health care expenditure, devoted to the *excess* costs (relative to the TF system in Canada) generated by private insurance (Himmelstein and Woolhandler, 1986; Himmelstein et al., 1996). Yet PI covers only about one-third of total health expenditures, and the US TF Medicare system is administratively highly efficient. The intense (and successful) opposition of the PI industry to national health insurance is not difficult to understand.

financing channels.<sup>34</sup> On the other hand, unionized workers in hospitals and long term care facilities care for many people who could not afford to pay significant amounts privately or purchase private insurance. A shift to increased private financing, especially if combined with more private delivery, might well threaten both their wage rates and their jobs. These groups tend correspondingly to be strong advocates for the preservation of TF – but with more money.

Indeed even those who would profit from more private financing, have little interest in a fully-privatized system. As noted at the outset, in a modern health care system fully individually-financed care is impossible, and commercial insurance cannot profitably be provided to those with the greatest needs and least resources. The maximum profit opportunities are thus provided in a system with privately financed care for those who can afford it, and public financing for those who cannot.

At this point, the economic interests of private providers and of the “healthy and wealthy” converge. SI systems permitting or requiring this public/private partition (Germany and the Netherlands) are also highly regressive, and those who pay privately receive “better (perceived) quality” care. The wealthy cannot opt out of TF systems, but they may as in the United Kingdom be able to buy services privately, again in the expectation of “better quality”, and certainly more timely, care than is available in the (quite inexpensive) TF system. Private insurance coverage in the United Kingdom (both individually purchased and employer-provided) is highly correlated with income. Among the top decile of the population, 40% have private insurance, contrasted with less than 5% among the bottom four deciles (Emmerson et al., 2000, p. 27).

Both approaches thus combine “universal” coverage with preferred access to care through private markets for the better-off, and offer significant extra income opportunities for those who serve them. The major difference is that in Germany and the Netherlands the structure of the SI system also generates a more regressive distribution of payment burden. On the other hand by keeping public expenditures quite low the United Kingdom moderates the amount of money actually redistributed by its relatively progressive financing system (van Doorslaer et al., 1999).

Substantial increases in out-of-pocket charges within the U.K. NHS itself (Emmerson et al., *ibid.*) have shifted the financing mix in a more regressive direction, raising the share paid by patients and lowering that of taxpayers. As noted above, however, insofar as they have a greater deterrent effect on those with lower incomes they will also improve access for the better-off to the NHS itself.

On the other hand the nominally “private” US system has extensive TF programs for the elderly and the poor – the unhealthy and unwealthy – but preserves a highly regressive financing system for the general population. Without the (quite progressively financed)TF programs, it is hard to

---

<sup>34</sup> Perhaps the clearest example of this was the response of the pharmaceutical industry to the cost control measures introduced in Germany in 1993 (Henke et al., 1994). Public expenditures for pharmaceuticals that exceeded a pre-set target were charges back to the prescribing physicians (collectively). Prescribing costs shrank immediately and dramatically. The industry responded by, *inter alia*, advocating dropping the policy and instead increasing user charges to patients. Presumably they anticipated that costs would thus *not* be controlled, only shifted, and their sales revenues and profits would not be threatened.

see how the remarkable scale of the US system could possibly be sustained. A great many incomes, some of them very large, depend upon the continuation of TF in US health care.

There is thus a sort of “dual alliance” in support of private markets within a collectively funded health care system. TF or SI assures that those who cannot pay will be paid for, thus also assuring a solid economic base of incomes for those who get paid.<sup>35</sup> But limitations in the universal system, on who or what is covered, or when, leave openings for private markets in which (some) providers can offer preferred access or quality of care, on highly profitable terms, for those who can afford it. Providers escape the earnings constraints of a public payment system; their well-off patients escape the burden of paying to support for others, a standard of care similar to their own.

Even better (for these two groups) would be universal private insurance (without state regulation or co-ordination). The financing structure would be as regressive as out-of-pocket payment, while provider revenues would be constrained neither by the individual patient’s ability to pay, nor by effective collective control.<sup>36</sup> A fully private insurance market could offer a wide range of insurance “products” at different prices, giving access to different grades of care.<sup>37</sup> But fundamental insurance principles make universal coverage impossible in a purely private, competitive insurance market.

Commercial insurers are in business to make a profit, not to provide access to care. In a competitive market their profitability and ultimately their survival depend on accurately assessing the relative risk status of customers and setting their premiums accordingly. This process – normal underwriting – leads to a progressive convergence of premium charges towards expected risk. Accordingly, if the market is operating efficiently, the healthiest people will be offered coverage on the most favourable terms. The “bad risks”, those with greatest needs for care, will be charged the highest premium if they can buy coverage at all. Those with insufficient resources will simply be priced out of the market (as with any other privately marketed commodity). Universal PI in a world where individuals’ health needs and financial resources are highly diverse (and negatively correlated) is a logical impossibility.

---

<sup>35</sup> Universal access also lends moral and political legitimacy to the financing system as a whole.

<sup>36</sup> A textbook example of the provider interest in private care was given by “National Economic Research Associates” (NERA) in a study funded by an industry lobby group, Pharmaceutical Partners for Better Health Care (Hoffmeyer and McCarthy, 1994). They concluded that the only two health systems in the world in which “needs/demands” for health care were met (in 1990) were the United States and Switzerland! The recommendation was that TF systems, and particularly the UK National Health Service, be restructured so as to rely much more on private financing, presumably with the expectation that this would lead to substantially higher expenditures (on pharmaceuticals in particular).

Curiously, however, in 1990 a number of other countries were spending more than Switzerland on health care. And the study projected that by 2000 even the USA, despite still spending far more than any other country, would no longer be meeting its’ citizens’ needs. Only Switzerland would still meet the test. It would appear that “meeting needs” was defined not by the level of care provided, or even by the expense, but by the extent of private funding, and thus of opportunities for private providers.

<sup>37</sup> This appears to be happening in the USA, where an increasing proportion of the privately insured population are covered by “managed care” plans limiting their choice of provider and range of services covered. Satisfaction levels are considerable lower than in the traditional unrestricted “indemnity” plans now available only toward the top of the income scale (Donelan et al., 1999).

Unless...

## 5. Covert Tax Finance

### A. Tax-Expenditure Subsidies

Governments have a number of mechanisms, both fiscal and regulatory, by which to influence patterns of economic activity. Tax financing for health care involves raising revenues through various compulsory contribution to state revenues, and then using those revenues either to provide or to pay for health care. But public authorities may also use the taxing power to exert influence more indirectly, by offering relief from taxes that would otherwise be owed.

Private expenditures on favoured activities may be deducted from taxable income, or credited in whole or part against other tax liabilities. Students of public finance refer to these as “tax-expenditure subsidies” (TES) to reflect the fact that tax concessions are as real a transfer from government to private resources as are direct subsidies. They have the same impact on the overall government budget, and presumably on private behaviour. These TES are often provided for certain forms or levels of out-of-pocket medical expenses. But they are also used, in some countries, to promote and sustain PI well beyond what would otherwise be possible in a commercial insurance market.

Governments may also extend the reach of SI systems by paying premiums to enrol those who have no contributory earnings, or covering shortfalls of aggregate premium revenue from general taxation (see Normand & Busse this volume). But these payments are direct subsidies, recorded in the public accounts, and can (or should be) included as part of the TF component.<sup>38</sup> A TES, by contrast, does not show up in public expenditures or as TF for health care, but rather re-allocates tax liabilities from those who have to those who have not made expenditures in the favoured categories.

One might refer to this form of TF as “indirect”, except that the terms “direct” and “indirect” already have well-established meanings with respect to taxation. The label “covert” reflects the fact that, unlike direct financial subsidies, tax concessions do not show up in the public accounts and are rarely open to public scrutiny and debate. Indeed their exact value may be difficult to determine, and estimates are contestable.<sup>39</sup> While well understood by specialists, covert TF is largely invisible to the general public and governments are not held accountable for the amounts thus transferred, or their destinations. Presumably in consequence, covert TF is typically regressive, often extremely so, while overt TF tends to be proportional or progressive.<sup>40</sup>

---

<sup>38</sup> They would show in Figure 1 as a flow from the government to the SI box, balanced by a corresponding increase in tax revenues.

<sup>39</sup> The amounts reported for the countries of the OECD, for example, are both incomplete and unreliable.

<sup>40</sup> Highly regressive but invisible subsidies to private insurance can be very resistant to change. Thirty years of criticism of the US TES for economists of every political stripe has had no impact whatever. Proposed Canadian legislation, in the late 1970s, to remove the TES for private insurance was withdrawn in the face of pressure from private insurers and providers (in particular dentists). On the other hand TES for private payments were eliminated in Finland in 1992 (*supra.*) and a limited TES for private insurance was eliminated in the United Kingdom in 1997. The key factors may be the scale and concentration of the affected private interests.

A TES for private health insurance can be offered by simply providing that premium payments to approved insurers be in whole or part either deductible from taxable income, or eligible as a credit against tax liability. But a still less transparent form links the TES to the purchase of private insurance by employers on behalf of employee groups. The employer deducts these premiums from taxable income, as part of employee compensation. But unlike wages, the employer-paid premiums are not taxed as income in the hands of the employee.<sup>41</sup>

While the employer may write the cheque to the insurer, most economists take the view that premiums are actually paid by employees in the form of reductions in wages or other forms of compensation.<sup>42</sup> But they pay these premiums from their *before-tax* income. For employees, the TES is equivalent to purchasing health insurance coverage from after-tax income, as any other commodity, but then receiving a rebate from government of some proportion of the amount paid. Unlike the TES, however, the cost of the rebate and the distribution of the benefits would be highly visible.

The covert TF of private payments has two redistributive effects, both regressive. Insofar as it promotes UC or PI as a substitute for either overt TF or SI, it shifts the overall mix of financing sources in a more regressive direction. But the subsidy itself is also typically highly regressive, insofar as the effective “rebate” received by the covered individual is equal to the cost of the coverage provided multiplied by that individual’s marginal income tax rate. Both tend to rise with income.<sup>43</sup>

The TES for employer-paid private insurance is most significant in North America, and especially in the United States. But Europe also furnishes good examples of regressive TES. Portugal permits deduction of health expenditures from taxable personal income, copayments and payments to private doctors being fully deductible and health insurance premiums up to a ceiling of Esc 70,0000. Since Portugal has a very high proportion of out-of-pocket payment (nearly 40% in 1990), this TES represents a substantial amount of money (estimated at 4.8% of direct tax revenues or between 0.2% and 0.3% of GDP) (Dixon & Mossialos, 2000). Since the direct tax system is also quite progressive, these deductions will be of considerably greater value to those with higher incomes.

In Ireland, Wagstaff et al. (1999) find that accounting for the TES reverses the apparent progressivity of expenditures for private insurance. Although private cover is primarily bought by the better-off, the availability of tax concessions in a relatively progressive income tax system

---

<sup>41</sup> It is of course quite feasible to treat employer-paid premiums as a taxable benefit. Failure to do so is a deliberate public policy intended to encourage the purchase of private insurance.

<sup>42</sup> If labour compensation is viewed by the employer as a package of wages and benefits, and the size of the total package is determined in a competitive labour market, then additional receipts in one form will be balanced by reductions in another. Employees pay for higher benefits through lower wages. But the wages are taxed, the benefits are not.

<sup>43</sup> In the USA, with a relatively progressive income tax system and PI coverage that, though extensive, varies considerably by income level (Kronick and Hogan, 1999), the total value of the TES rebate is very large – an estimated \$124.8 bn. in 1998, over ten percent of total health expenditures and about one third of outlays by private insurers. It is also very steeply regressive, being worth an estimated \$2,357 per year to families with incomes over \$100,000, but only \$71 to families with incomes under \$15,000 (Sheils and Hogan, 1999). It is difficult to believe that an overt TF program of this magnitude and benefit pattern could survive public scrutiny.

lowers its net cost at the upper end of the income distribution sufficiently to make the overall cost distribution regressive.

The TES for private payments both illustrates, and provides a vehicle for advancing, the joint agenda of the healthy and wealthy, and of those who draw their incomes from health care. It uses the fiscal power of the state to offset the severe limitations that private competitive markets place on the scope of PI in health care, and thereby both enhances the regressivity of the overall financing system, and undermines public efforts to contain its cost (and the incomes it generates). Accordingly one should expect to find advocacy of some form of TES associated with proposals for expansion of private funding. Overt TF is an alternative to private finance; but covert TF is complementary, making high levels of UC more politically acceptable and protecting PI against the processes of competitive “cream-skimming” and experience rating that would otherwise severely limit its market.<sup>44</sup>

## B. Regulation and Mandation

Governments may, however, preserve significant scope for PI by various forms of regulation that restrict the competitive strategies of private insurers, for example by requiring them to offer “community-rated” coverage – similar premium for all who apply -- rather than “risk-rating” individuals or groups – charging different premiums on the basis of past experience or other correlates of risk. Since community rating fundamentally inconsistent with profit maximization, however, further regulation and various forms of subsidy or inter-insurer transfers are required to sustain it.<sup>45</sup>

Governments may go further, requiring all or some of their citizens to purchase private insurance, with characteristics and on conditions dictated by the state. Compulsion may be either directly by law (“mandation”) or indirectly by excluding certain groups from TF or SI coverage. Both are forms of covert TF, using state authority to encourage or compel the transfer of funds from individuals to insurers without passing through the public budget. Governments can thus report lower levels of both overt taxation and public spending.

Mandation has recently been introduced in Switzerland (1996) and in the province of Quebec in Canada (1997, for pharmaceuticals only).<sup>46</sup> In both jurisdictions residents are now required by

---

<sup>44</sup> Even with the TES, rates of private coverage in the USA have been trending downward; the ever-rising costs may be pricing people out of this market (Kronick and Gilmer, 1999). Public subsidies – overt TF – for private insurance purchase are now being suggested to shoe up the PI system., but it is estimated that they would have to be extremely expensive in order to have even a modest effect (Gruber and Levitt, 2000). Emmerson et al. (2000) make a related point (p. 31), that attempting to promote the spread of private insurance through a TES so as to “reduce the demand on the NHS” would be “extremely unlikely” to save more than its revenue cost.

<sup>45</sup> The Australian government, for example, have wanted for ideological and budgetary reasons, to preserve a voluntary PI alongside the public system. But they also want to promote competitive markets, which force insurers adjust their premium structures to attract only the better risks. The government responded to shrinking coverage by requiring private insurers to offer community-rated coverage, setting off a classic “vicious circle” of dis-enrolment by the better risks, insurer losses, premium increases, and further selective dis-enrolment. Government then introduced public subsidies for private coverage – to preserve the private market! (see also note 44 supra). The only other alternative is to make PI *de facto* compulsory for some or all of the population – mandation.

<sup>46</sup> Pharmaceuticals outside hospitals are not covered by the federal-provincial health program in Canada; provinces may provide whatever coverage, if any, they choose.

law to purchase a basic insurance package of defined benefits, from private insurers. In both jurisdictions the effect has been to achieve “universal” coverage while preserving (Switzerland) or extending (Quebec) both the market for private insurance and the extreme regressivity of the financing system – along with a steady and thus far uncontrollable escalation of total expenditures (Minder, Schoenholzer and Amiet 2000; Morgan. 1998).<sup>47</sup>

Mandation has thus advanced, in both jurisdictions, the agenda of the “dual alliance” above. It yields higher levels of expenditures -- incomes for providers – and a much more regressive financing structure than TF, while avoiding the political embarrassment of the low-income uninsured. But cost escalation may be its’ Achilles’ heel.<sup>48</sup> No matter how they are financed, if health expenditures continue to rise relative to national income they will inevitably return as a political problem.

In promoting private coverage, however, the covert forms of TF remove governments from any direct relationship with providers of care. While committing public authority, and through the TES public resources, they have neither explicit responsibility for costs, nor obvious mechanisms of control or even negotiation. Any bargaining leverage over the provision of health care and its costs through the monopsony and regulatory powers associated with overt TF vanishes from the covert forms. It may be hard to get back.

While neither TES nor mandate of private insurance are major features of the European landscape, it is important to be aware of the implications of these forms of covert TF for the scale and distribution of health care costs. Covert TF may become increasingly attractive to European governments, not only for reasons of ideology or fiscal exigency, but because international agreements, such as the Treaty of Maastricht, commit them to cutting spending and shrinking the apparent size of government. Covert TF permits government to appear parsimonious with public funds while subsidizing or compelling the uncontrolled expenditure of “other people’s money”. At the same time they can advance a redistributive agenda that might not be acceptable to the general public if the process were explicit. Given the strength of the interests involved, one should expect to see continuing, and perhaps growing, advocacy for such policies to reinforce the trend toward more private funding in both TF and SI systems.

---

<sup>47</sup> The details matter, of course. Switzerland requires all residents to purchase a basic package of hospital and medical benefits from private insurers that must set premiums on a community-rated basis, at levels yielding no profit on this portion of their business. Lower income individuals receive a subsidy to support this “private” purchase. Quebec mandates private coverage only for employee groups, many but not all previously had this coverage. The public plan that previously covered those over 65 or on social assistance was expanded to include “everyone else”. But there is a major difference. The public plan, previously entirely TF; now includes a structure of copayments, differentiated by class of enrollee. There has been a substantial increase in the UC component of the pharmaceutical financing mix, a lesser but significant increase in PI outlays, and a large *reduction* in TF. Total expenditures increased.

<sup>48</sup> Quebec’s new program introduces no mechanisms for cost control, only the usual rhetoric about copayments reducing “demand.” But this is not happening, and the strong support for the new program from the pharmaceutical industry makes clear that they, at least, fear no such effect. By contrast, they were bitterly opposed to the universal national TF pharmaceutical insurance program recommended by the federal National Forum on Health (Canada, National Forum on Health, 1997). The industry is well aware that TF has the potential actually to control costs; UC and PI do not.

## 6. Conclusions

This Chapter has attempted to identify characteristic patterns of performance in TF *systems*, contrasting them with systems relying more heavily on other revenue sources. But most health care systems draw to some degree on all four sources. Policy debates focus on the effects of shifting the balance at the margin – more or less TF or UC or PI within a particular type of system. Comparisons across systems serve primarily to inform debates about these within-system shifts, though they may also be relevant to countries whose health systems are undergoing significant transformation.

Ideally one would look for systematic differences in performance on a comprehensive range of important dimensions. But no individual country, let alone a large and representative group, generates sufficient information to support such a detailed characterization. This Chapter has focused on financial comparisons, not because those are all that matter, but because that is where (most of) the data are.

It is also the case, unfortunately but inevitably, that the inherent conflicts of interest over financing, in every health care system, intrude into the discussion of every other dimension of system performance. Financial concerns distort and contaminate the analysis of all other issues, or crowd them out entirely. Again to quote Enoch Powell (1976, p.14): "The unnerving discovery every Minister of Health makes ... is that the only subject he is ever destined to discuss with the medical profession is money."

One might hypothesize, for example, that the broader range of responsibilities of governments would lead TF systems to show more interest in the non-medical determinants of health, rather than focusing exclusively on the one pathway of the health care system. And indeed the exploration of social determinants has been more advanced in the TF countries, most notably the United Kingdom (the Black and Acheson Reports, and a long and very powerful research tradition) but also Canada, Sweden and Finland. But one would be hard put to show a corresponding impact on resource allocation, let alone health outcomes. A cynic might say that in TF systems the social determinants of health get attention; the health care system gets money.

Similarly in a TF system one might hope that governments, acting as representatives of the general population, might be much more active in promoting the identification and dissemination of cost-effectiveness in health care. Again the United Kingdom has long been the home of leading work on randomized clinical trials, and on cost-effectiveness analysis more generally. But international comparative data on outcomes of care is very thin. The greater interest in cost-effectiveness in the United Kingdom may be motivated more by the necessities of a relatively tight budget, than by any predisposition in TF *per se*.

Any attempt to redirect funding, whether from less to more effective forms of health care or from health care to other determinants of health, must threaten some provider incomes. The same is true of efforts to improve the efficiency of provision by doing more with less rather than more with more. Accordingly any broad public concern that might predispose TF systems to address these issues, tends to be off-set by the political costs of provoking conflicts with concentrated

provider interests. Public spirited philosopher-kings are scarce, perhaps because they have such short tenure.

Providers in TF systems are often said to be less responsive and accountable to their patients, paying insufficiently attention to their concerns, let alone their convenience. Yet similar complaints arise in all systems, with their focus related more to how providers are funded than to how the system is financed. TF or SI systems in which provider budgets and remuneration of personnel are insensitive to patient choices and concerns, obviously generate little incentive for responsiveness. The redesign of funding systems to extend the range and influence of patient preferences is an area of world-wide concern.

The financing mix can, however, affect provider responsiveness at both the practice and the system level. A “mixed public-private” system may permit providers in a TF system to collect additional payments directly from patients either formally as extra-billing or informally, “under the table” (and untaxed). Or they may be able to operate private practices on the side, for their better-off patients. In either case those unwilling or unable to pay more, receive less time and attention. At the system level, responsiveness to patients can deteriorate quite sharply in TF or SI systems if dissatisfied providers adopt various pressure tactics to extract more money (see Section 3C supra.). In the universal struggle over income shares, patients are hostage to both sides.

So we come back to the dimensions of performance for which comparative conclusions do seem to be justified. It is quite unambiguous that (overt) TF systems are relatively progressive, and privately financed systems highly regressive. Any shift in the mix of funding sources toward more tax finance (private payment), increases the share of the financing burden borne by those at higher (lower) incomes. But this redistributive effect turns out to be greatly tempered in practice; countries making most use of TF tend to have relatively less progressive tax systems.<sup>49</sup> Countries with the most progressive tax systems, by contrast, seem most reluctant to use them to finance health care.

More generally, within each country the mix of financing sources reflects a compromise among conflicting economic interests that is always in debate, and shifts according to their varying strengths. The time path of this compromise is complex, because interests that are in opposition along one of the three axes of conflict detailed above, may be congruent along another. The outcome depends upon their shifting coalitions.

The terms of this compromise over financing are particularly sensitive to another compromise, over access to high quality care. In principle, a TF system provides all citizens with the same degree of access to equivalent care, regardless of how much they contribute. This may be broadly acceptable, and the TF system retains solid support, so long as most of the population believe that they *are* receiving “all necessary care”, of high quality and in a timely manner.<sup>50</sup>

---

<sup>49</sup> Not so in the United Kingdom and Finland – but in both the progressivity of the tax system has declined significantly.

<sup>50</sup> No real-world system can provide either access to or quality of care that is equivalent for all, nor are all “needs” ever met. “Health is a state of inadequate diagnosis.” Public acceptance depends rather on perceptions, and on scale. Are differences in access acceptable and reasonable given people’s varying circumstances, and is the quality

Those at the top of the income distribution can always get preferred treatment at lower cost by opting out of a collective, income-based financing system, as in Germany and the Netherlands. TF does not permit this explicitly, but an indirect form of “opting out” may be achieved, as in the United Kingdom, through a relatively spartan universal TF system combined with an upper tier where better-off patients can “jump the queue” or received enhanced quality care. For them, the extra payments are more than compensated by lower taxes, at least relative to what it might cost to provide care of “private standard” to everyone through TF.<sup>51</sup> TF countries such as Sweden or Canada that have maintained a universal standard high enough to discourage private care, have indeed found it expensive.

But if a significant proportion of the population come to believe that they are not getting adequate care, then the coalition supporting TF may begin to weaken. A sudden shock to the fiscal capacity of the state, as in Finland or Canada, followed by sharp cuts in health care funding, encourages the belief that governments are no longer capable of paying for high quality care for all. (It is obviously in the interest of those at the top of the income distribution to encourage this belief, as in Canada.) “*Sauve qui peut*” – those who can afford to had better look after themselves, or at least supplement what the TF system can pay. If not all needs can be met, more of those in the middle of the income distribution may begin to see their interests as lying with those at the top, not those at the bottom. Support may grow for private payment and lower taxes – the agenda of the wealthy.

The compromise between providers and payers becomes a critical element in the generation of public perceptions. As noted above, providers’ operational definition of adequate financing seems to be “more”. Health care is always underfunded, no matter at what level, and only continuing relatively rapid growth in expenditures is satisfactory. Failure to grow is a funding crisis, and actual cuts are a catastrophe – imminent system collapse. This at least is the message from the political theatre.<sup>52</sup> And in a TF system, the complaints of providers are translated directly into political pressure on governments – provider representatives have become increasingly sophisticated at finding the pressure points of vulnerable governments.

Hence the growing concern being expressed in many countries about the “sustainability” of TF for health care. The common argument that countries “cannot afford” to meet growing needs for health care through TF, and must therefore draw in other sources of finance, makes no economic sense. A country’s ability to sustain a given level of expenditure is not increased by moving money through one financing pipe in Figure 1 rather than another. And a given level of care actually costs more, not less, if financed through private insurance, because the administrative costs are greater. The real argument runs deeper.

---

of care, if not always the best in the world, at least not too far short of it most of the time? In a largely data-free environment, these describe perceptions based on hearsay and a limited degree of personal experience rather than established “facts” – quite apart from whether reasonable access could ever be reduced to a “fact”.

<sup>51</sup> This presumes that the private standard really is more expensive. But the easiest way to encourage patients to “go private” and pay extra, is simply to manipulate access to the public system. A single-tier system might in fact be able to offer the same standard of care, on average, and at lower cost – but with lower incomes for some physicians.

<sup>52</sup> The process has been quite evident during the funding crisis in Canada; the impressions created in the media have been almost totally at variance with the data being generated by system-level research (Roos, 2000). Provider representatives have played a key role in feeding the media to generate the popular belief.

TF systems, faced with providers' ambitions for an ever greater share of national income, find themselves on the horns of a dilemma – concede growing expenditure, or confront growing provider dissatisfaction. Both responses threaten the coalitions that support the relatively progressive pattern of transfers found in TF systems. Increasing total expenditure requires an increasing amount of income transferred from the healthy and wealthy to cover the increasing costs of care for the unhealthy and unwealthy. Since in TF systems health expenditures make up a large share of public budgets, these increasing transfers may generate increasing taxpayer resistance, particularly from strategically placed elites. Public surveys routinely find that increases in health care spending draw wide public support – adding to the difficulties of cost control -- but that support does not necessarily translate into electoral support for increased taxation and public spending (Glennester, 1997, p.114).

On the other hand, effective cost containment leads, through the identity of income and expenditure, into increasing provider efforts to convince the general public that the health care system is deteriorating and placing their health at risk. Discontented providers also have a variety of ways to impede access to TF care, reinforcing their message of “underfunding”. To the extent that these are successful, the result is not only greater political pressure on governments to relax the cost controls, but increased efforts by individuals to find more timely access or perceived better quality care through private purchase.<sup>53</sup> The TF system can suffer slow erosion even while it enjoys, in principle, broad popular support and willingness to contribute further, if an increasing proportion of the population become unwilling to accept a universal standard of care that they believe to be inadequate.

There seem to be two possible resolutions to this dilemma. If general economic growth is sufficiently rapid, the health care system can continue to expand without requiring an increasing share of income to be transferred across income classes. TF systems have functioned very successfully under these conditions in the past, but are then hostage to both the performance of the general economy, and the relative forbearance of providers. The threat from economic downturns has already been demonstrated; over the longer run the increasing role of for-profit organizations in health care (particularly pharmaceuticals) could significantly increase the pressure from providers.

Alternatively it may be possible to shift the public debates away from the political theatre of income claims, to focus more on actual measures of system performance. Governments in TF systems have played a relatively limited role in system management, delegating most operational control to providers of care. They have made minimal efforts to collect and disseminate reliable information on system performance at a level of detail that could substantiate or refute claims of “unmet needs” or system failure.<sup>54</sup> (When they are substantiated, an appropriate response must be, and be seen to be, forthcoming.) Broadly-based public support, combined with prosperity sufficient to maintain the compromises with providers, has permitted this relatively disengaged approach. But it has left TF systems hostage to the good-will, or at least grudging acceptance, of providers, and poorly placed to deal with the strong economic interests pushing for both system expansion and creeping privatization.

---

<sup>53</sup> The point is not that provider concerns and claims are necessarily false, but rather that insofar as they arise out of the income-expenditure identity, their “truth-value” is irrelevant to the process of extracting more funding.

<sup>54</sup> “Shroud-waving” (United Kingdom) and “medical terrorism” (Canada) thrive in an information vacuum.

There seems widespread agreement among students of health care systems that there is substantial scope, in all developed countries, for increasing their efficiency and effectiveness without sacrificing the quality of care. Claims that external trends – ageing populations, changing technologies, public “tastes” – will force wealthy industrialized societies to choose between spending an ever-increasing share of their incomes on health care, letting the standard of care for the whole population fall steadily behind the technically possible, or accepting “multi-tiered” care, regressively financed and graded by ability to pay, are simply false.<sup>55</sup> But the evidence has made little headway against the entrenched interests of providers. The gap between research evidence and public perceptions appears to be widening (Roos, 2000), and the economic motivations drawing it apart are not at all obscure. The long-run sustainability of TF systems, despite or perhaps because of their successes, may well depend upon finding ways to bridge this gap.

---

<sup>55</sup> In less wealthy societies, however, with a very wide dispersion of incomes, the economic constraints may well be binding. If the costs of health care for the whole population at the standards now prevailing in the developed world are simply beyond the means of the country as a whole, but well within the means of its upper-income groups, then there is probably no politically feasible option but multi-tiered care. The wealthy will not accept the best standard of universal care that a TF system could afford. The only question is whether, with increasing prosperity, a country can move toward TF (or universal SI) or whether private financing becomes so deeply entrenched, as in the USA, that it is impervious to change. The answer may well depend upon whether the dispersion of incomes becomes greater or less as economic growth proceeds.

## References

- Abel-Smith, B. (1992) "Cost Containment and New Priorities in the European Community" Milbank Quarterly Vol. 70, pp. 393–416.
- Abel-Smith, B., and E. Mossialos (1994) "Cost Containment and Health Care Reform: A Study of the European Union" Health Policy Vol. 28, pp. 89–132.
- Anderson, G.F., J. Hurst, P. Sotir Hussey and M. Jee-Hughes (2000) "Health Spending and Outcomes: Trends in OECD Countries, 1960-98" Health Affairs Vol. 19, no. 3 (May- June), pp. 150-7.
- Anderson, G.F., and J.-P. Poullier (1999) "Health Spending, Access, and Outcomes: Trends in Industrialized Countries" Health Affairs Vol. 18, no. 3 (May-June), pp. 178-92.
- Atkinson, A.B. (1999) "Income Inequality in the UK" Health Economics Vol. 8, pp. 282- 288.
- Barer, M.L., R.G. Evans, C. Hertzman and M. Johri (1998) "Lies, Damned Lies, and Health Care Zombies: Discredited Ideas That Will Not Die" Health Policy Institute Discussion Paper #10, University of Texas, Houston (March), pp. 19-39.
- Blendon, R.J., R. Leitman, I. Morrison and K. Donelan (1990), "Satisfaction with Health Systems in Ten Nations", Health Affairs Vol. 9, no. 2 (Summer), pp. 185-92.
- Canada, Canadian Institute for Health Information (1999) National Health Expenditure Trends, 1975-1999 Ottawa: Canadian Institute for Health Information.
- Canada, National Forum on Health (1997) Canada Health Action: Building on the Legacy Ottawa: National Forum on Health.
- D'Ambrosio, M.G., and A. Donatini (2000) Health Care Systems in Transition: Italy Copenhagen: European Observatory on Health Care Systems.
- Dixon, A., and E. Mossialos (2000) "Has the Portuguese NHS achieved its objectives of equity and efficiency?" International Social Security Review Vol. 53, no. 4, pp.
- Dixon, J., A. Harrison and B. New (1997) "Is the NHS Underfunded?" British Medical Journal Vol. 314, pp.58-61.
- Donelan, K., R. Blendon, C. Schoen, K. Davis, and K. Binns (1999) "The Cost of Health System Change: Public Discontent in Five Nations" Health Affairs Vol. 18, no. 1 (May-June), pp. 206-16.
- Emmerson, C., C. Frayne, and A. Goodman (2000) Pressures in UK Healthcare: Challenges for the NHS London: The Institute for Fiscal Studies.

- Glennerster, H. (1997) Paying for Welfare: Toward 2000 (3rd. ed.) London: Prentice-Hall.
- Gruber, J., and L. Levitt (2000) "Tax Subsidies for Health Insurance: Costs and benefits" Health Affairs, Vol. 19, no. 1 (January-February), pp. 72-85.
- Henke, K.-D., M.A. Murray and C. Ade (1994) "Global Budgeting in Germany: Lessons for the United States" Health Affairs Vol. 13, no. 4 (Fall), pp. 7-21.
- Himmelstein, D.U., and S. Woolhandler (1986), "Cost Without Benefit: Administrative Waste in U.S. Health Care" New England Journal of Medicine Vol. 314, pp. 441-5.
- Himmelstein, D.U., J. Lewontin and S. Woolhandler (1996), "Who Administers Who Cares? Medical Administrative and Clinical Employment in the United States and Canada" American Journal of Public Health Vol. 86, no. 2, pp. 172-8.
- Hoffmeyer, U.K. and T.R. McCarthy (1994) Financing Health Care (two vols.) Dordrecht: Kluwer Academic Publishing.
- Kakwani, N.C. (1977) "Measurement of tax progressivity: an international comparison" Economic Journal Vol. 87, pp. 71-80.
- Klavus, J., and U. Häkkinen (1998) "Micro-level Analysis of Distributional Changes in Health Care and Financing in Finland" in M.L. Barer, T.E. Getzen and G.L. Stoddart (eds.) Health, Health Care and Health Economics: Perspectives on Distribution Chichester: John Wiley, pp. 139-55.
- Kronick, R., and T. Gilmer (1999) "Explaining the Decline in Health Insurance Coverage, 1979-1995" Health Affairs Vol. 18, no. 2 (March-April), pp. 30-47.
- Maynard, A. (1996) Table Manners at the Health Care Feast" The Case for Spending Less and Getting More from the NHS (LSE Health Discussion Paper No. 4) London School of Economics.
- Minder, A., H. Schoenholzer, and M. Amiet (2000) Health Care Systems in Transition: Switzerland Copenhagen: European Observatory on Health Care Systems.
- Morgan, S. (1998) "Quebec's Drug Insurance Plan: A Model for Canada?" Discussion Paper HPRU 98:2D (February), Centre for Health Services and Policy Research, University of British Columbia, Vancouver.
- Mustard, C.A., M. Shanahan, S. Derksen et al., (1998a) "Use of Insured Health Care Services in Relation to Income in a Canadian Province" in M.L. Barer, T.E. Getzen and G.L. Stoddart (eds.) Health, Health Care and Health Economics: Perspectives on Distribution Chichester: John Wiley, 1998, pp. 157-178.

Mustard, C.A., et al., (1998b) "Paying Taxes and Using Health Care Services: The Distributional Consequences of Tax Financed Universal Health Insurance in a Canadian Province" paper presented to the CSLS (Centre for the Study of Living Standards) conference on The State of Living Standards and the Quality of Life in Canada, October 30-31, Ottawa (unpublished).

Newhouse, J.P., and The Insurance Experiment Group (1993) Free for all? Lessons from the RAND Health Insurance Experiment Cambridge and London: Harvard University Press.

OECD (1999) OECD Health Data 99: Comparative analysis of 29 countries (version 07/15/99) Paris.

Powell, J.E. (1976) Medicine and politics: 1975 and after (new ed.) Tunbridge Wells: Pitman Medical.

Rasell, E., J. Bernstein, and K. Tang (1993) The Impact of Health Care Financing on Family Budgets Briefing Paper (April) Washington, DC: Economic Policy Institute.

Rasell, E., J. Bernstein and K. Tang (1994) "The Impact of Health Care Financing on Family Budgets" International Journal of Health Services Vol. 24, no 4, pp. 691-714.

Robinson, R. (1999) Health Care Systems in Transition: United Kingdom Copenhagen: European Observatory on Health Care Systems.

Roos, N.P. (2000) "The disconnect between the data and the headlines" (Editorial) Canadian Medical Association Journal Vol. 163 (August 22).

Sheils, J., and P. Hogan (1999) "Cost of Tax-Exempt Health Benefits in 1998" Health Affairs Vol. 18, no. 2 (March-April), pp. 176-81.

Taroni, F. (2000) "Devolving responsibility for funding and delivering health care in Italy" Euro Observer (Newsletter of the European Observatory on Health Care Systems) Vol. 2, no.1 (Spring), pp 1-2.

van Doorslaer, E., A. Wagstaff, H. van der Burg et al. (1999) "The redistributive effect of health care: some further international comparisons" Journal of Health Economics Vol. 18, no. 3, pp. 263-90.

van Doorslaer, E., A. Wagstaff and F. Rutten, eds. (1993) Equity in the Finance and Delivery of Health Care: An International Perspective Oxford: Oxford U. Press.

Wagstaff, A., E. van Doorslaer et al. (1992) "Equity in the finance of health care: some international comparisons" Journal of Health Economics Vol. 11, no. 3, pp. 361-87.

Wagstaff, A., E. van Doorslaer, H. van der Burg et al. (1999) "Equity in the finance of health care in twelve OECD countries" Journal of Health Economics Vol. 18, no. 3, pp. 291-314.

White, J. (1995) Competing Solutions: American Health Care Proposals and International Experience Washington, DC: Brookings Institution.

Wildavsky, A. (1977) “Doing Better and Feeling Worse: The Political Pathology of Health Policy” Daedalus Vol. 106, no.1, pp. 105–124.

Wolfson, M.C. (1994) “Social Proprioception: Measurement, Data, and Information from a Population Health Perspective” in R.G. Evans, M.L. Barer and T.R. Marmor (eds.) Why Are Some People Healthy and Others Not? New York: Aldine De Gruyter, 1994, pp. 287-316.

**Table 1 Health care financing in Finland % Distribution of total expenditure, 1990- 1997**

	Percent by revenue source							
	1990	1991	1992	1993	1994	1995	1996	1997
<b>State:</b>	37.2	36.9	35.2	31.7	30.3	28.4	24.1	20.7
<b>Income Tax</b>	14.1	11.2	7.6	5.5	5.8	5.5	7.5	7.7
<b>Indirect Taxes</b>	22.1	18.1	15.0	11.3	11.8	12.5	11.4	11.5
<b>Net Public Borrowing</b>	1.0	7.6	12.5	14.9	12.7	10.4	5.2	1.5
<b>Municipalities</b>	35.8	35.7	33.3	32.2	32.2	33.8	37.8	41.0
<b>Nat'l Social Insurance</b>	10.8	11.3	11.1	12.1	13.0	13.3	14.0	14.3
<b>Total Public Financing</b>	83.8	83.9	79.5	76.0	75.5	75.5	75.9	76.0
<b>Households</b>	12.6	12.6	16.6	20.1	20.4	20.7	20.3	20.2
<b>Other Private Financing</b>	3.6	3.5	3.9	3.9	4.1	3.7	3.8	3.9
<b>Total Financing</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

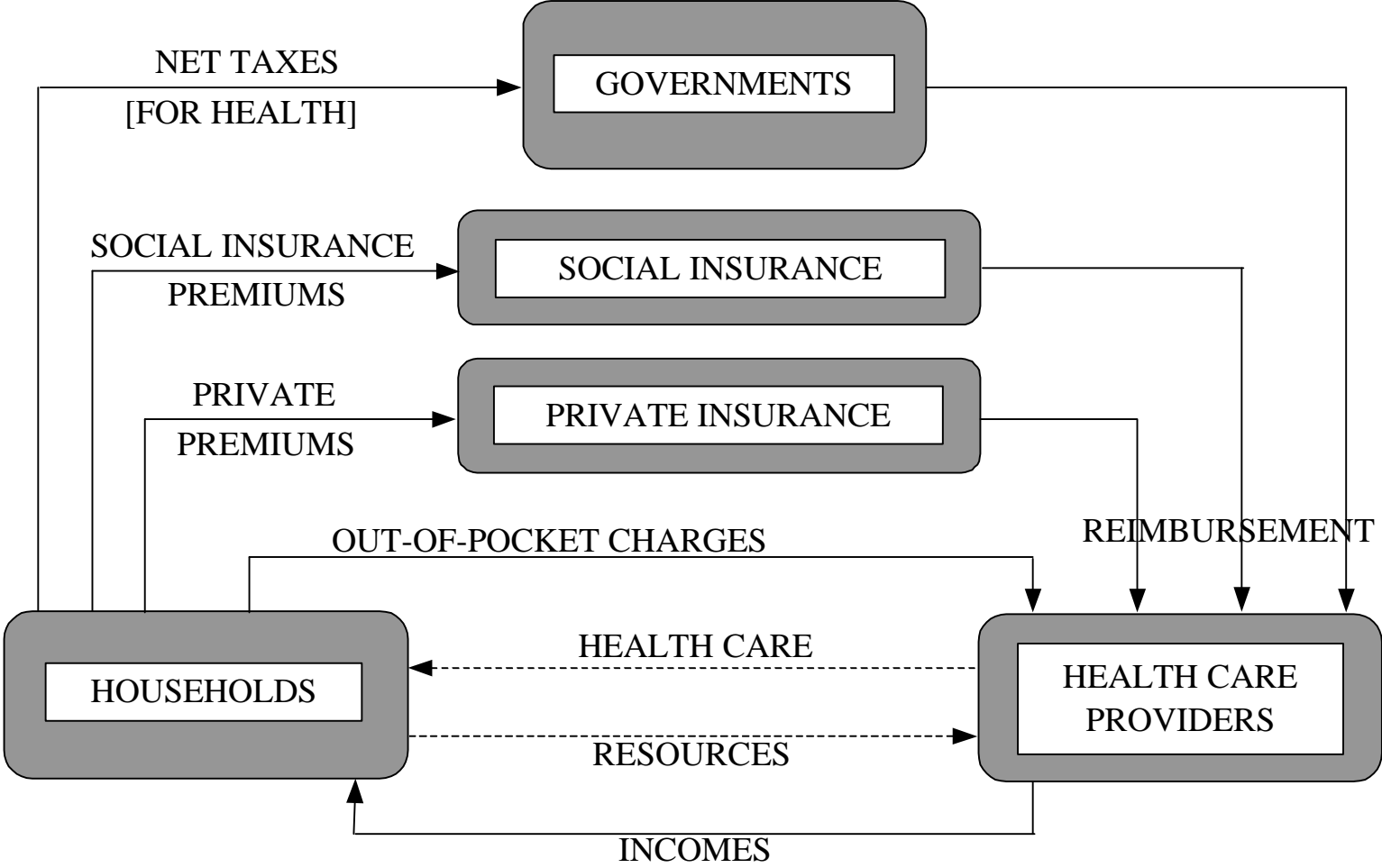
Source: Tabulated by U. Hakkinen. Elimination of tax deductibility of medical expenses in 1992 accounts for about three percentage points of the increase in household expenditure.

**Table 2 FINLAND – The Progressivity of Health Care Finance**

<b>Kakwani Indices by Revenue Source and Year</b>				
	<b>1990a</b>	<b>1990b</b>	<b>1994</b>	<b>1996</b>
<b>National Taxes</b>		0.044		0.029
<b>Direct</b>	0.269	0.285	0.310	0.249
<b>Indirect</b>	-0.097	-0.096	-0.106	-0.127
<b>Net Public Borrowing</b>	0.040		0.039	
<b>Municipal Taxes</b>	0.077	0.068	0.066	0.039
<b>Social Insurance</b>	0.086	0.090	0.123	0.053
<b>Total Public Sources</b>	0.061	0.064	0.066	0.039
<b>Out of Pocket</b>	-0.198	-0.242	-0.198	-0.270
<b>Total System</b>	<b>0.024</b>	<b>0.021</b>	<b>0.005</b>	<b>-0.035</b>

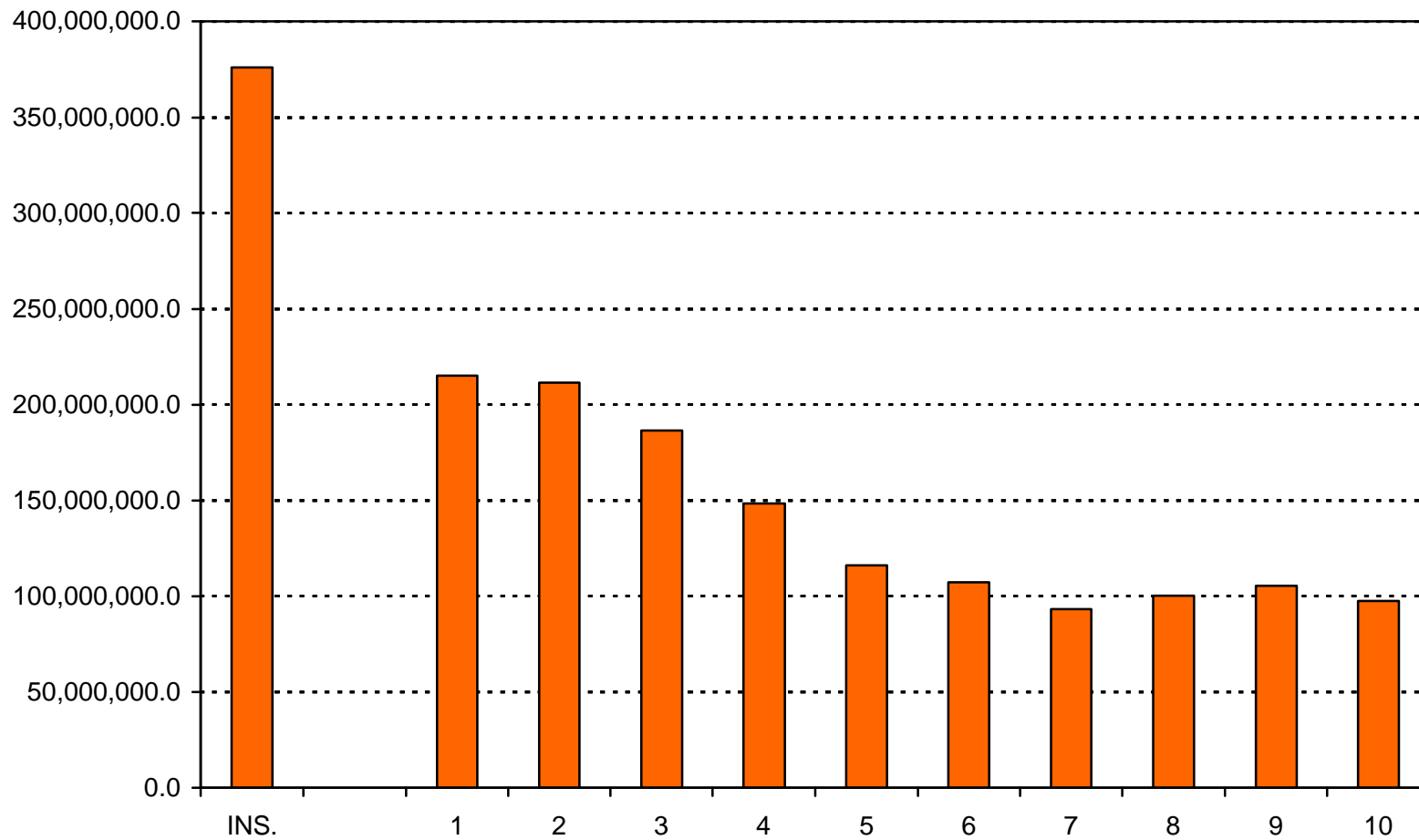
Sources: 1990a and 1994 are from Klavus and Hakkinen (1998) Table 5;.1990b and 1996 are later (unpublished) tabulations by Jan Klavus. The 1990a and b estimates are based on different equivalence scales for defining household size. Estimates for 1994 are based on simulations, rather than actual data.

FIGURE 1  
ALTERNATIVE WAYS OF PAYING FOR HEALTH CARE



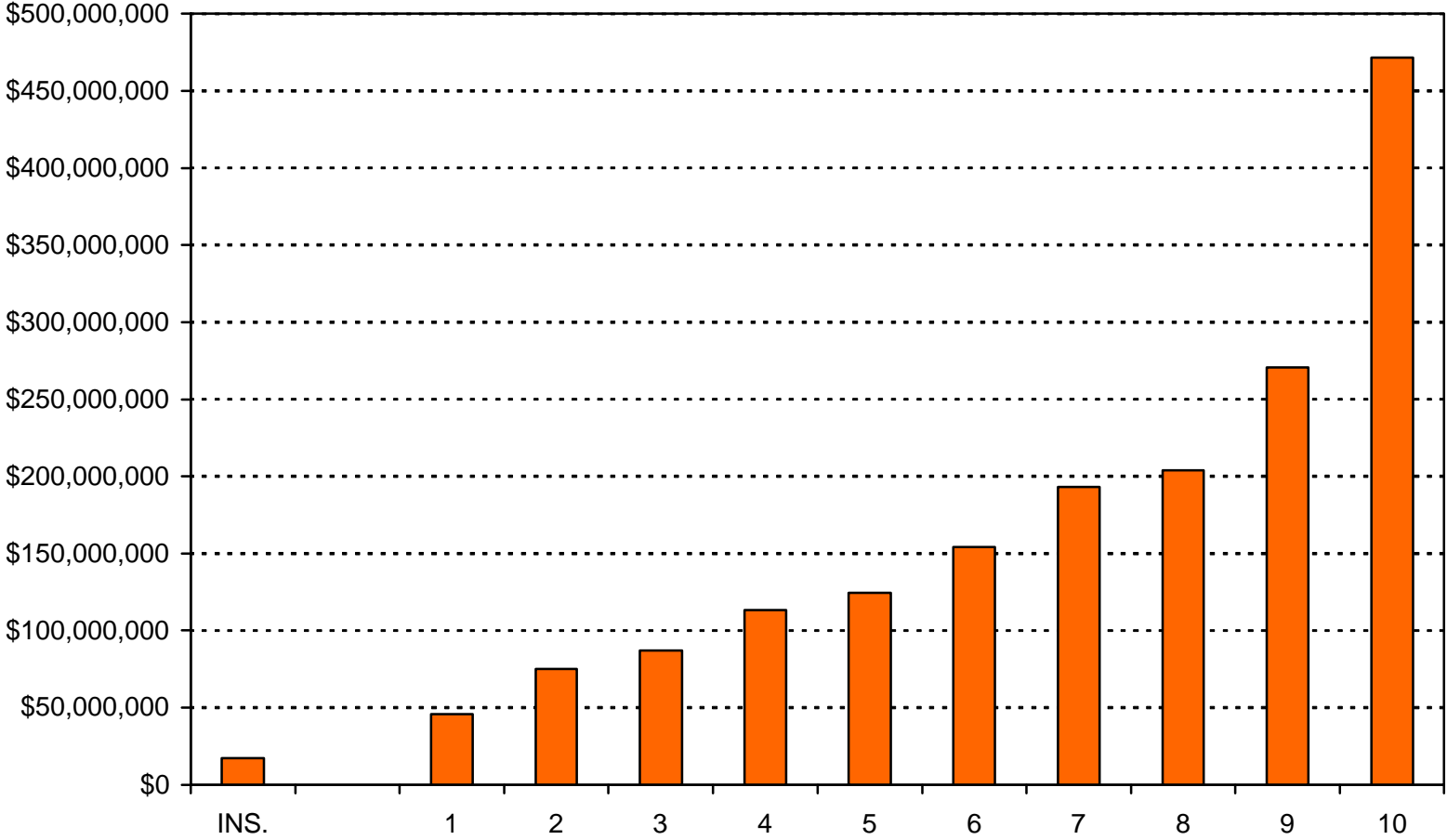
Total Revenues equal Total Expenditures equal Total Incomes

**Figure 2a**  
**Expenditures on Publicly Financed Health Care,**  
**by Income Decile, Manitoba, 1994**



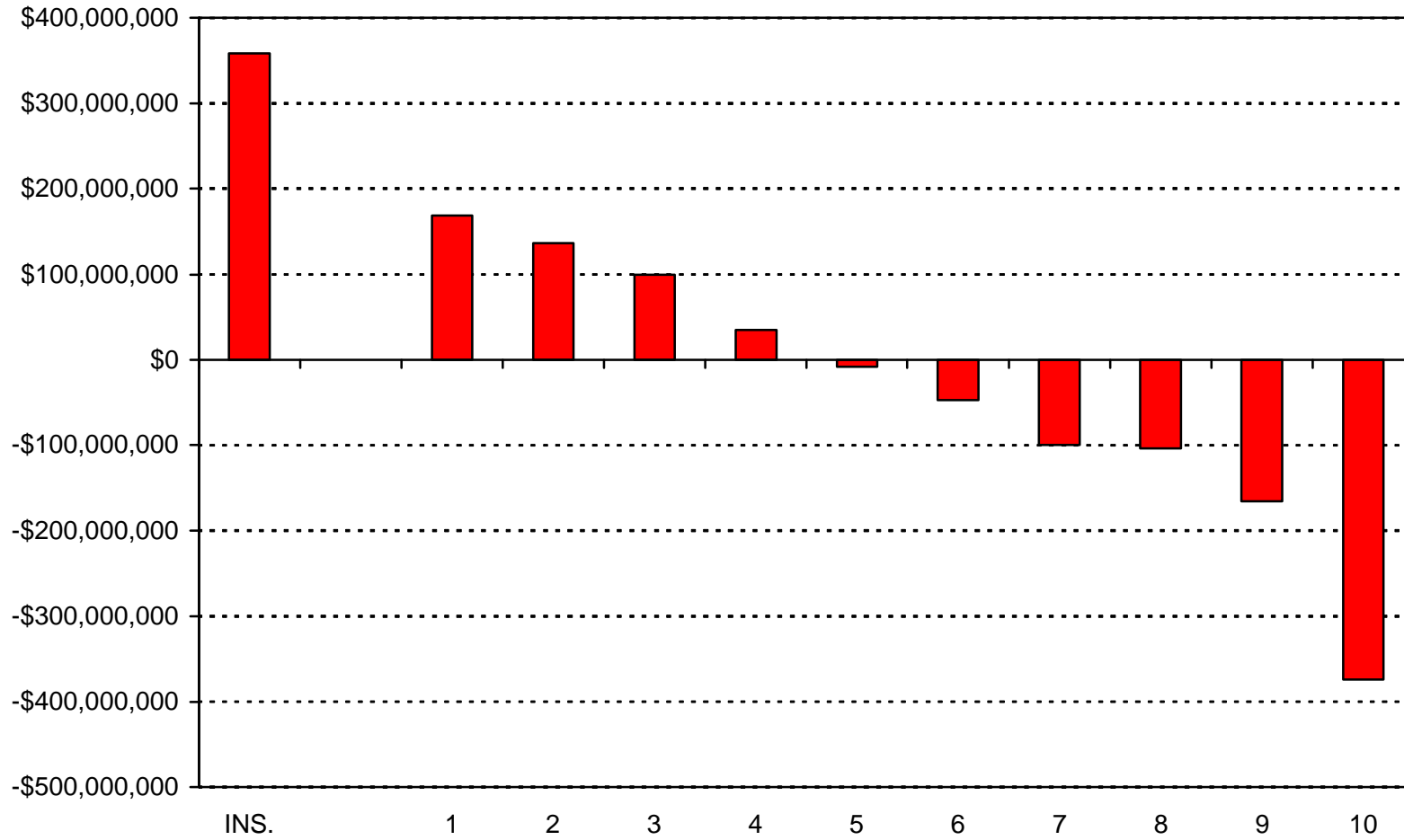
SOURCE: MCPHE. INS. – Institutionalized Population.

**Figure 2b**  
**Tax Contribution to Health Care,**  
**by Income Decile, Manitoba, 1994**



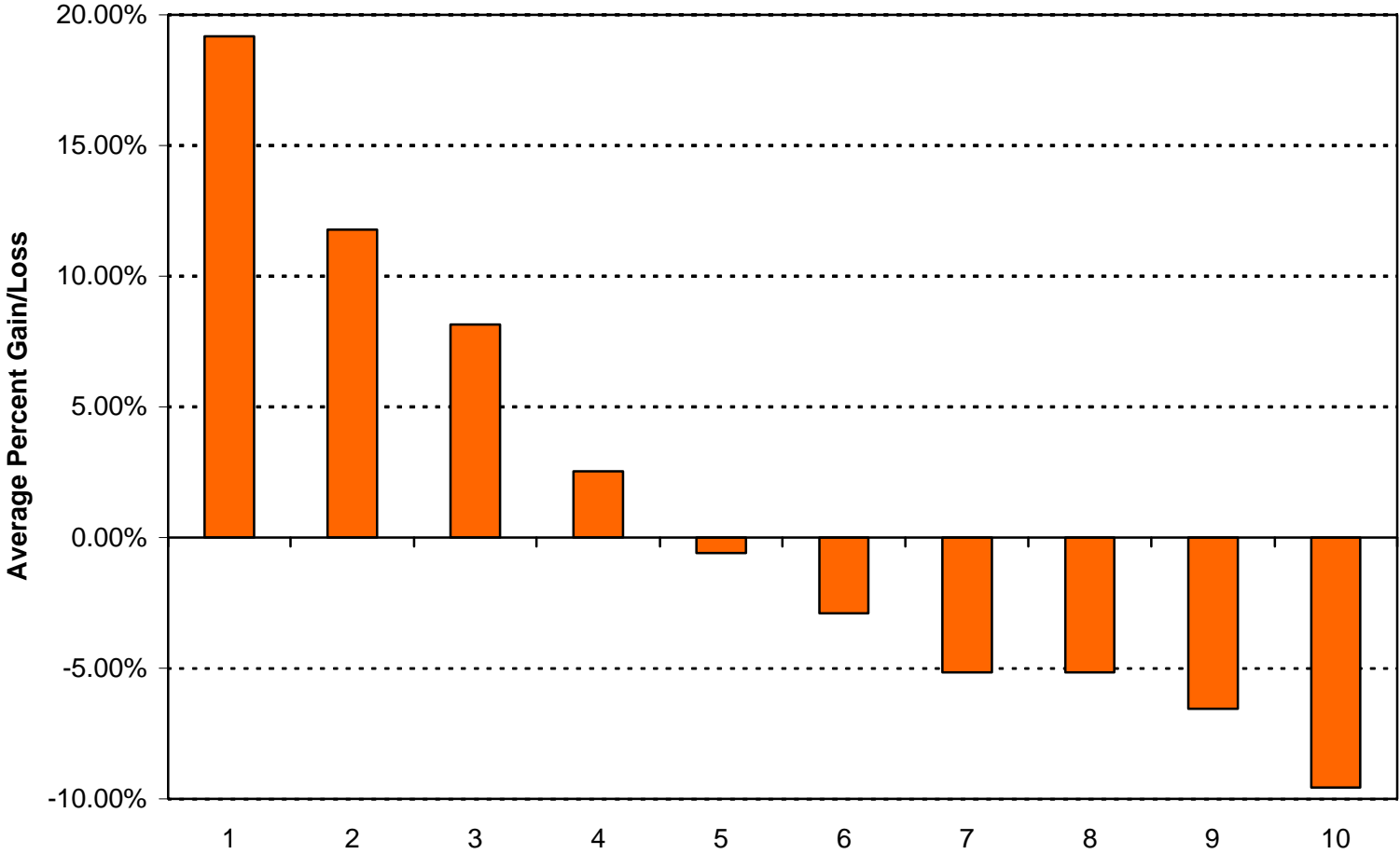
SOURCE: MCPHE. INS. – Institutionalized Population.

**Figure 2c**  
**Net Transfer to/from Income Decile,**  
**Public Financing of Health Care, Manitoba, 1994**



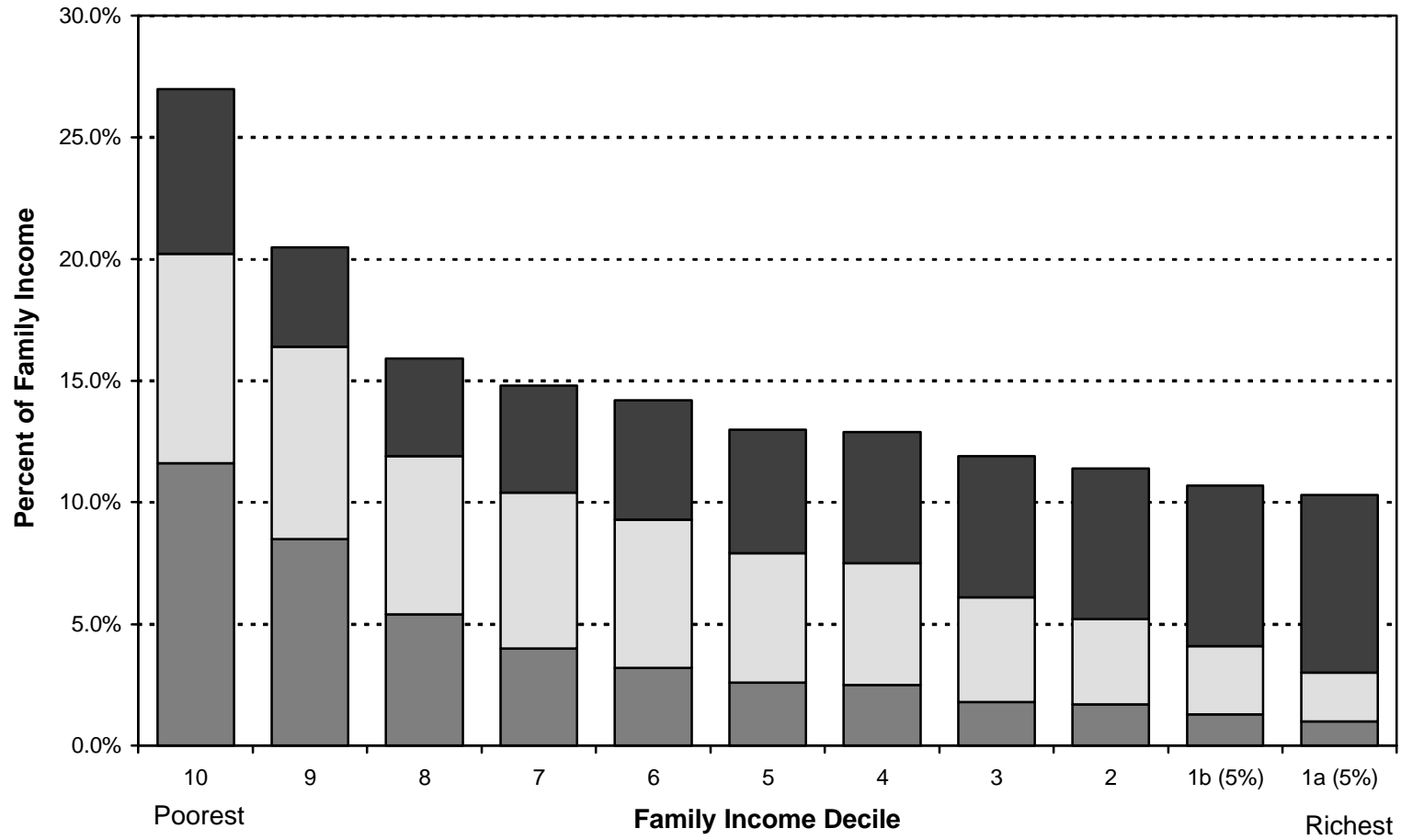
SOURCE: MCPHE. INS. – Institutionalized Population.

**Figure 2d**  
**Net Transfer by Income Decile,**  
**as Share of Gross Income, Manitoba, 1994**



SOURCE: MCPHE. INS. – Institutionalized Population.

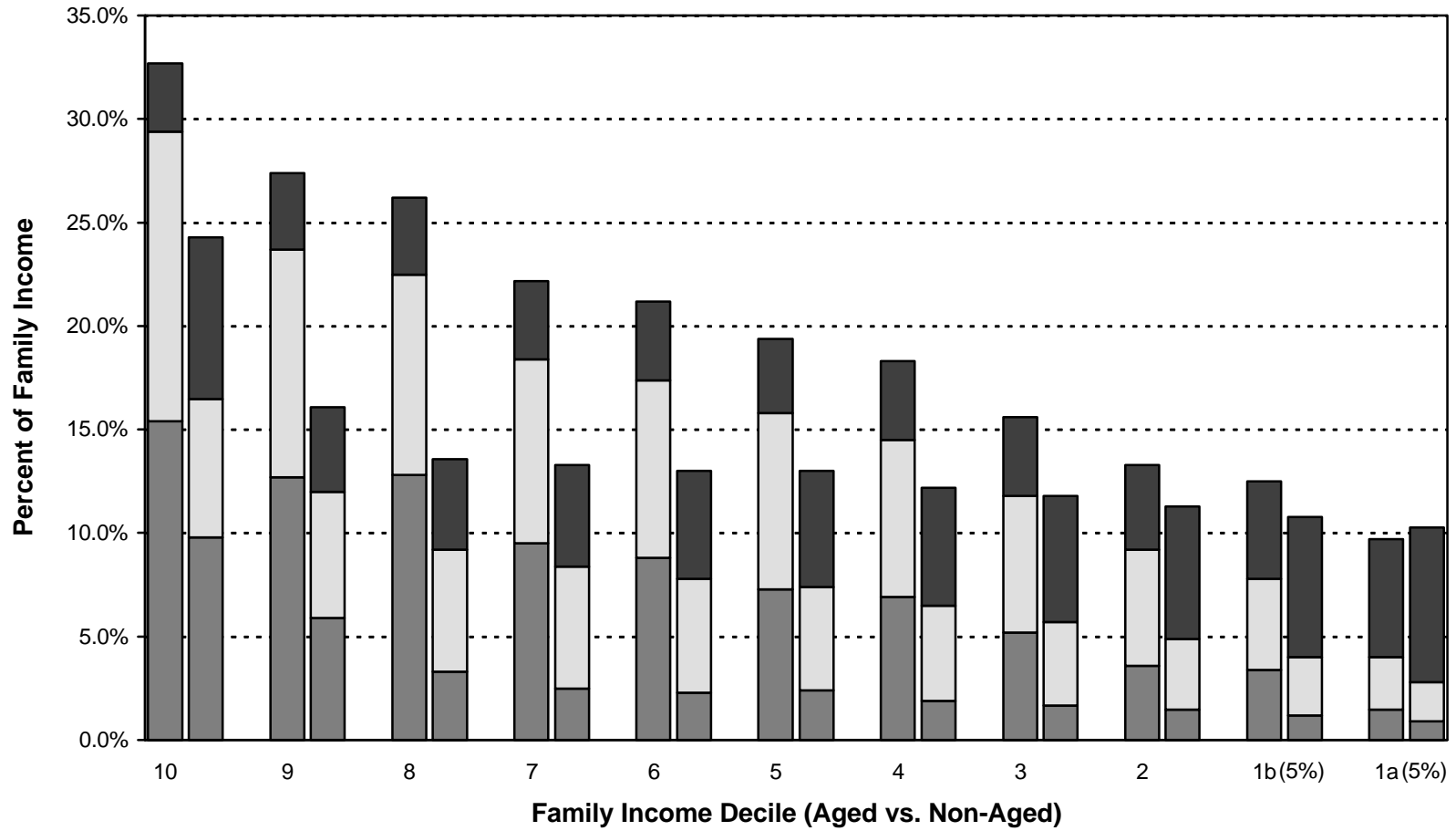
**Figure 3a**  
**Family Expenditures for Health Care, 1987**  
 (by Family Income Decile)



SOURCE: Rasell *et al.*, n.d. [1993]

■ Out of Pocket    □ Premiums    ■ Taxes

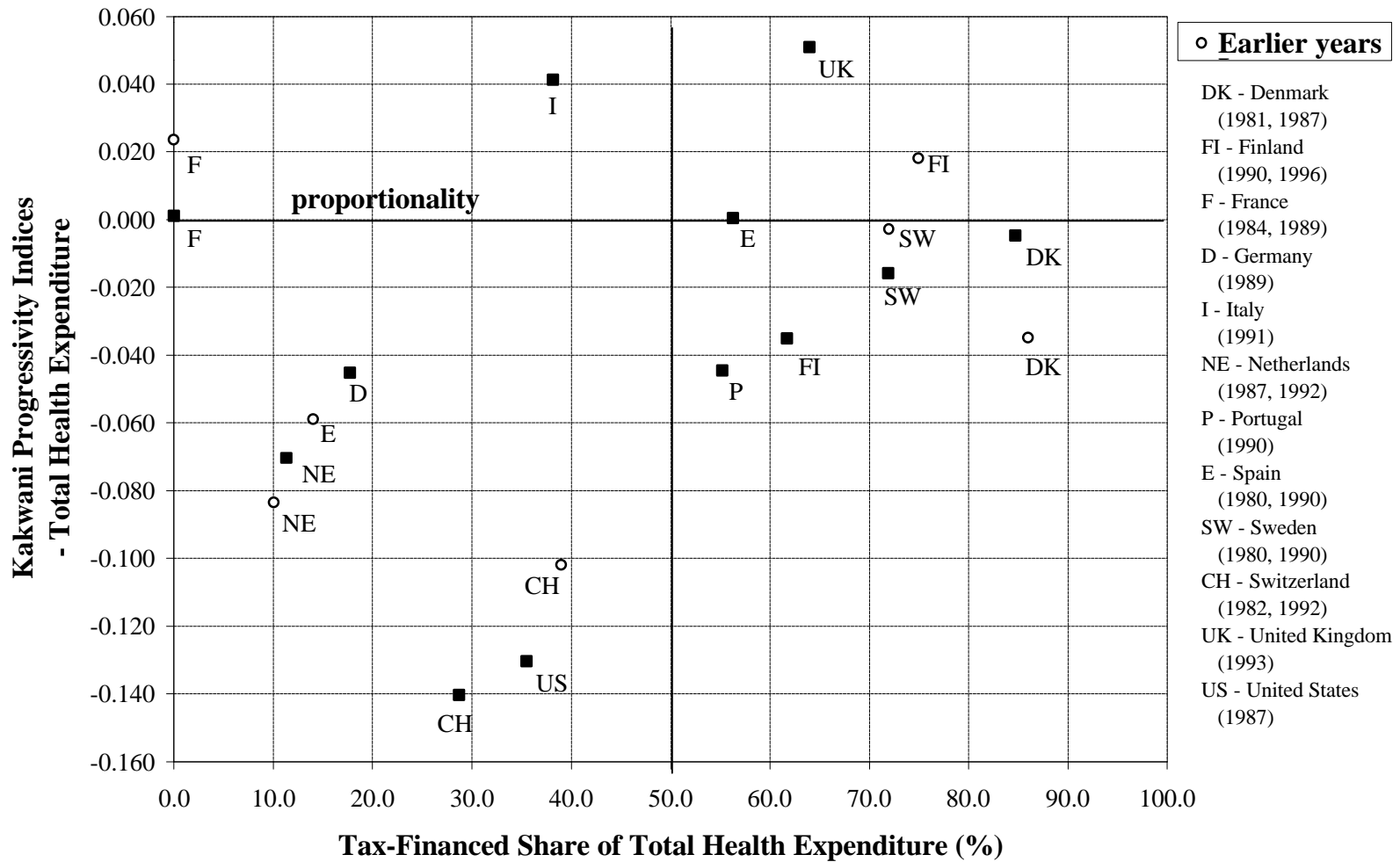
**Figure 3b**  
**Family Expenditures for Health Care, 1987**  
 (by Family Income Decile and Age of Head)



SOURCE: Rasell *et al.*, n.d. [1993]

■ Out of Pocket □ Premiums ■ Taxes

**Figure 4**  
**Relation between Tax Financing and Progressivity of Total Health Expenditures**  
**Selected OECD Countries and Years**



Sources: Wagstaff *et al* (1999) and calculations by U. Hakkinen for Finland.

## HEALTH POLICY RESEARCH UNIT

Centre for Health Services and Policy Research  
429 - 2194 Health Sciences Mall  
University of British Columbia  
Vancouver, B.C. CANADA  
V6T 1Z3

Telephone: (604) 822-4969  
Fax: (604) 822-5690  
Website: www.chspr.ubc.ca

### DISCUSSION PAPERS & REPRINTS

Postage and Handling (per order)  
Canada/USA \$2.00  
Overseas (surface) \$4.00  
Overseas (air) \$8.00

- HPRU2001:3D *Apocalypse No: Population Aging and the Future of Health Care System*. March 2001. (R.G. Evans, K.M. McGrail, S.G. Morgan, M.L. Barer, C. Hertzman). \$8.00
- HPRU2001:2D *Revitalizing Medicare: Shared Problems, Public Solutions*. January 2001. (M. Rachlis, R.G. Evans, P. Lewis, M.L. Barer). (A study prepared for the Tommy Douglas Research Institute). No charge. Download report from the Tommy Douglas Research Institute website (61 pages).
- HPRU2001:1R (R.J. Reid, L. MacWilliam, L. Verhulst, N. Roos, M. Atkinson). "Performance of the ACG Case-Mix System in Two Canadian Provinces", *Medical Care*, Volume 39, No. 1, pp 86-99.
- HPRU2000:18D *Tales from the other Drug Wars*. November, 2000. Papers from the 12<sup>th</sup> Annual Health Policy Conference held in Vancouver, BC., Nov. 26, 1999. (edited by M.L. Barer, K.M. McGrail, K. Cardiff, L. Wood & C.J. Green). \$10.00.
- HPRU2000:17R (R.G. Evans). "Health for all or wealth for some: Conflicting goals in health care reform", in Mills, Anne, ed. *Reforming Health Sectors*, London: Kegan Paul International, 2000, pp. 25-53.
- HPRU2000:16R (S. Morgan, M.L. Barer, R.G. Evans). "Health Economists Meet the Fourth Tempter: Drug Dependency and Scientific Discourse", *Health Economics*, Vol. 9: 659-667, (2000).
- HPRU2000:15D *Financing Health Care: Taxation and the Alternatives*. October, 2000. (Robert G. Evans). \$8.00.
- HPRU2000:14R (R.G. Evans). "Canada - How the System Works: A Summary", *Journal of Health Politics, Policy and Law*, Vol. 25, No. 5, October 2000.
- HPRU2000:13R (C. Hertzman). "The Case for an Early Childhood Development Strategy", *Canadian Journal of Policy Research*, Volume 1, No. 2, Autumn 2000; p.11-18.
- HPRU2000:12R (M.L. Barer, W.A. Webber). "The Great Canadian Physician Exodus?", *Canadian Journal of Policy Research*, Volume 1, No. 2, Autumn 2000; p.94-101.
- HPRU2000:11R (D. Hadorn and the Steering Committee of the Western Canada Waiting List Project). "Setting priorities for waiting lists: defining our terms", *Canadian Medical Association Journal*, Oct. 3, 2000; 163(7) p. 857-860.

D = Discussion Paper      R = Reprint

## HEALTH POLICY RESEARCH UNIT

### DISCUSSION PAPERS & REPRINTS

- HPRU2000:10R (S. B. Sheps, R.J. Reid, M.L. Barer, H. Krueger, K.M. McGrail, B. Green, R.G. Evans, C. Hertzman). "Hospital downsizing and trends in health care use among elderly people in British Columbia", *Canadian Medical Association Journal*, August, 2000; 163(4) p. 397 – 401.
- HPRU2000:9D *Waiting for Health Care in Canada: Problems and Prospects*. May, 2000. (M.L. Barer, S. Lewis). \$8.00.
- HPRU2000:8R (K. McGrail, B. Green, M.L. Barer, R.G. Evans, C. Hertzman, C. Normand). "Age, costs of acute and long-term care and proximity to death: evidence for 1987-88 and 1994-95 in British Columbia", *Age and Ageing* 2000; 29: 249-253. No charge.
- HPRU2000:7R (R.G. Evans). "Two Systems in Restraint: Contrasting Experiences with Cost Control in the 1990s". In: Thomas DM, editor. *Canada and the United States: Differences that Count*. 2nd ed. Peterborough ON: Broadview Press Ltd.; April, 2000. p. 21-51. No charge.
- HPRU2000:6R (S. Lewis, M.L. Barer, C. Sanmartin, S. Sheps, S.E.D. Shortt, P.W. McDonald) (May, 2000). "Ending waiting-list mismanagement: principles and practice", *Canadian Medical Association Journal*, May 2, 2000; 162(9):1297-1300.
- HPRU2000:5R (C. Sanmartin, S.E.D. Shortt, M.L. Barer, S. Sheps, S. Lewis, P.W. McDonald) (May, 2000). "*Waiting for medical services in Canada: lots of heat, but little light*", *Canadian Medical Association Journal*, May 2, 2000; 162(9):1305-1310.
- HPRU2000:4D *Why is Mortality Higher in Unequal Societies: Interpreting Income Inequality and Mortality in Canada and the United States*. March, 2000 (N.A. Ross, M.C. Wolfson, J. Berthelot, J.R. Dunn). \$8.00
- HPRU2000:3D *Private Highway, One-Way Street: The Decline and Fall of Canadian Medicare?* March, 2000 (R.G. Evans, M.L. Barer, S. Lewis, M. Rachlis, G.L. Stoddart). \$8.00
- HPRU2000:2D *Toward a Lexicon of Population Health*. January, 2000 (J.R. Dunn, M.V. Hayes). \$5.00
- HPRU2000:1D *Social Inequality, Population Health, and Housing: A Study of Two Vancouver Neighbourhoods*. January, 2000 (J.R. Dunn, M.V. Hayes). \$8.00
- HPRU99:13D *The Role of Evidence in Policy Development: The Example of in vitro Fertilization*. December, 1999 (P. Baird). \$8.00
- HPRU99:12D *Explaining the Link between Socioeconomic Status and Health*. February, 1999 (A. Ostry). \$8.00
- HPRU99:11R (C.B. Forrest, G.B. Glade, B. Starfield, A.E. Baker, M. Kang, R.J. Reid) (July, 1999). *Gatekeeping and Referral of Children and Adolescents to Specialty Care*, *Pediatrics*, Vol. 104, No. 1. No Charge.
- HPRU99:10D *Patterns of Specialist of Referral for Patients with Newly-diagnosed Diabetes in Alberta*. August, 1999 (R. J. Reid, B. Starfield, C.B. Forrest, P.W. Ladenson, M. Diener-West). \$8.00
- HPRU99:9D *Measuring Morbidity in Populations: Performance of the Johns Hopkins Adjusted Clinical Group (ACG) Case-mix Adjustment System in Manitoba*. June, 1999 (R. Reid, L. MacWilliam, N.P. Roos, B. Bogdanovich, C. Black). \$10.00 (This discussion paper is being simultaneously released as a working paper of the Manitoba Centre for Health Policy and Evaluation, University of Manitoba).
- HPRU99:8D *Housing and Health Inequalities: Review and Prospects for Research*. July, 1999 (J.R. Dunn). \$8.00
- HPRU99:7D *Summary report of the incidence and prevalence of worker injury and subject outcome in British Columbia: A record linkage study*. March, 1999 (C. Hertzman, K. McGrail, R. Hirtle). \$8.00
- HPRU99:6D *Social Capital 4: An Empirical Exploration of Relationships among Individual-level Social and Human Capital Attributes and Self-rated Health Status in Saskatchewan, Canada*. February, 1999 (Gerry Veenstra). \$5.00

## HEALTH POLICY RESEARCH UNIT

### DISCUSSION PAPERS & REPRINTS

- HPRU99:5D *Determinants of Health: Impact on Health and Social Policy.* Summary of the 11<sup>th</sup> Annual Health Policy Conference, Centre for Health Services and Policy Research. \$8.00
- HPRU99:4D *Reducing Birth Defects in Populations.* January, 1999 (Patricia A. Baird). \$8.00
- HPRU99:3D *Social Capital 3: An Empirical Exploration of Relationships among Individual-level Social-Psychological and Action Components of Social Capital.* January, 1999 (Gerry Veenstra). \$8.00
- HPRU99:2D *Social Capital 2: Results from Empirical Exploration into the Relationship between Social Capital and the Performance of District Health Boards in Saskatchewan, Canada.* January, 1999 (Gerry Veenstra). \$8.00
- HPRU99:1D *Social Capital 1: An Hypothesized Relationship between Social Capital in Communities and Effective Political Governance by Regional Health Authorities.* January, 1999 (Gerry Veenstra, Jonathan Lomas). \$8.00
- HPRU98:15R (Robert G. Evans, Morris L. Barer) (1998) *Financing and Delivering Health Care in Canada: Lots of Sound and Fury, but Little "Reform"*, Korean Review of Public Administration, Vol. 3, No. 1, 1998, 25-49. No charge.
- HPRU98:14D *The Utilization of Acute Care Medical Beds in Prince Edward Island.* November, 1998 (Charles J. Wright, Karen Cardiff). \$8.00
- HPRU98:13D *Utilization of Palliative Care Services in Vancouver: 1990-1993.* November, 1998 (Karen Cardiff, David Hsu and David Kuhl). \$8.00
- HPRU98:12D *Health for All or Wealth for Some? Conflicting Goals in Health Care Reform.* October, 1998 (Robert G. Evans). \$8.00
- HPRU98:11R *Health Reform: What "Business" is it of Business?* October, 1998 (Robert G. Evans).
- HPRU98:10D *Income-Related Health Inequality in Canada.* October, 1998 (Karin H. Humphries, Eddy van Doorslaer). \$8.00
- HPRU98:9D(a) *Waiting Lists and Waiting Times for Health Care in Canada: More Management!! More Money??* Summary Report. July, 1998 (Paul McDonald, Sam Shortt, Claudia Sanmartin, Morris Barer, Steven Lewis and Sam Sheps). No charge.
- HPRU98:9D(b) *Waiting Lists and Waiting Times for Health Care in Canada: More Management!! More Money??* Full Report. July, 1998 (Paul McDonald, Sam Shortt, Claudia Sanmartin, Morris Barer, Steven Lewis and Sam Sheps). No charge.
- HPRU98:8R Evans, R.G. (1998) *"New bottles, same old wine: Right and wrong on physician supply"*, Canadian Medical Association Journal, March 24, 1998; 158:757-9. No charge.
- HPRU98:7R Evans, R.G. (1996) *"Toward a Healthier Economics (Reflections on Ken Bassett's Problem)"*, Health, Health Care and Health Economics: Perspectives on Distribution (August 1998), pg. 465-500. No charge.
- HPRU98:6D *Paper Tiger or Toothless Tabby? Regulation of Prescription Drug Promotion in Canada.* July, 1998 (Barbara Mintzes). \$8.00
- HPRU98:5D *Lies, Damned Lies, and Health Care Zombies: Discredited Ideas that Will Not Die.* March, 1998 (Morris L. Barer, Robert G. Evans, Clyde Hertzman, Mira Johri) No Charge. (Released as HPI Discussion Paper #10, Health Policy Institute, The University of Texas-Houston, Health Science Center)
- HPRU98:4R Evans, R.G. (1996) *"Healthy, Wealthy and Cunning? Profit and Loss from Health Care Reform"*, The Vancouver Institute: An Experiment in Public Education. JBA Press, UBC (1998), p. 446-486.

## HEALTH POLICY RESEARCH UNIT

### DISCUSSION PAPERS & REPRINTS

- HPRU98:3R (Kimberlyn M McGrail, Robert G Evans, Morris L Barer, Samuel B Sheps, Clyde Hertzman and Arminée Kazanjian). *"The Quick and the Dead: "Managing" Inpatient Care in British Columbia Hospitals, 1969 to 1995/96"*, Health Services Research, February 2001, 35(6): 1319-1338.
- HPRU98:2D *Quebec's Drug Insurance Plan: A Prescription For Canada?* February, 1998 (Steve Morgan). \$5.00
- HPRU98:1D *Genetic Technologies and Achieving Health for Populations.* January, 1998. (Patricia A. Baird). \$5.00
- HPRU97:15D *Should Human Genes Be Patented?* February, 1997. (Patricia A. Baird). \$5.00
- HPRU97:14R (C.B. Forrest, R. J. Reid) (November/December, 1997) *"Passing The Baton: HMOs' Influence On Referrals To Specialty Care."* Health Affairs, Vol. 16, no. 6, p. 157-162. No Charge.
- HPRU 97:13R (Robert G. Evans) (March, 1997) *"Health care reform: who's selling the market, and why"*, Journal of Public Health Medicine, Vol. 19, no. 1, pp.45-49.
- HPRU 97:12R (Morris L. Barer, Laura Wood) (Fall 1997) *"Common Problems, Different "Solutions": Learning from International Approaches to Improving Medical Services Access for Underserved Populations"*, Dalhousie Law Journal, Vol. 20, no. 2, p 321-358. No Charge.
- HPRU 97:11R (Peter N. Nemetz, Cynthia Leibson, James M. Naessens, Mary Beard, Eric Tangalos, Leonard T. Kurland) (1996) *"Determinants of the Autopsy Decision: A Statistical Analysis"* American Journal of Clinical Pathology, August, 1997 Vol. 108 No. 2.
- HPRU 97:10D *Cloning of Animals and Humans: What should the Policy Response be?* September, 1997 (Patricia A. Baird). \$5.00
- HPRU97:9D *Adapting to Adversity, Protecting the Principles, Resisting Reactionary "Reforms": Canada's Health Care System in the 1990s* (August 1997) (Robert G. Evans). \$5.00
- HPRU 97:8R (Cameron A. Mustard, Anita L. Kozyrskyj, Morris L. Barer, Sam Sheps) (May, 1997) *"Emergency Department Use As A Component of Total Ambulatory Care: A Population Perspective"* Canadian Medical Association Journal, January 13, 1998; 158(1). No Charge.
- HPRU 97:7D *Acute Medical Beds: How Are They Used in British Columbia?* April, 1997 (Charles Wright, Karen Cardiff, Miles Kilshaw). \$8.00
- HPRU 97:6R (David R. Meddings, Clyde Hertzman, Morris L. Barer, Robert G. Evans, Arminee Kazanjian, Kimberlyn M. McGrail, Samuel B. Sheps) (1997) *"Socioeconomic Status, Mortality, and the Development of Cataract at a Young Age"*, Social Science and Medicine (June 1998) Vol 46(11): 1451-1457. No charge.
- HPRU 97:5D *Issues for Canadian Pharmaceutical Policy.* February, 1997 (Steven G. Morgan). \$8.00
- HPRU 97:4D *Mortality and Morbidity Associated with the Distribution of Monthly Welfare Payments.* March, 1997 (Glen Verheul, Sharon Manson Singer, James M. Christenson). No charge.
- HPRU 97:3D *Global Consumption from the Perspective of Population Health.* January, 1997 (Clyde Hertzman, Shona Kelly). \$5.00
- HPRU 97:2D *Utilization of Physician Services in the United States by Residents of Ontario.* January, 1997 (Steven J. Katz, Diana Verrilli, Morris L. Barer). \$8.00
- HPRU 97:1D *Evaluating Amendments to the Canadian Patent Act.* January, 1997 (Steve Morgan, Morris L. Barer). \$5.00
- HPRU 96:14R (R. Chamberlayne, B. Green, M. L. Barer, C. Hertzman, W. Lawrence, S. Sheps) (1998) *"Creating a Population-Based Linked Health Database: A New Resource for Health Services Research"*, Canadian Journal of Public Health 89(4):270-73 July/Aug, 1998.

## HEALTH POLICY RESEARCH UNIT

### DISCUSSION PAPERS & REPRINTS

- HPRU 96:13R a-d
- Maticka-Tyndale, E., Godin, G., LeMay, G, Adrien, A., Manson-Singer, S., Willms, D., Cappon, P., Bradet, R. (1996) *"Canadian Ethnocultural Communities Facing AIDS: Overview and Summary of Survey Results from Phase III."* Canadian Journal of Public Health, 87-supplement 1, May-June 1996, pp S38-42. No charge.
  - Godin, G., Maticka-Tyndale, E., Adrien, A., Manson-Singer, S., Willms, D., Cappon, P., Bradet, R., Daus, T., (1996) *"Understanding Use of Condoms Among Canadian Ethnocultural Communities: Methods and Main Findings of the Survey."* Canadian Journal of Public Health, 87-supplement 1, May-June 1996, pp. S33-37. No charge.
  - Manson-Singer, S., Willms, D., Adrien, A., Baxter, J., Brabazon, C., Leune, V., Godin, G., Maticka-Tyndale, E., Cappon, P. (1996) *"Many Voices - Sociocultural Results of the Ethnocultural Communities Facing AIDS Study in Canada."* Canadian Journal of Public Health, 87-supplement 1, May-June 1996, pp. S26-32. No charge.
  - Adrien, A., Godin, G., Cappon, P., Manson-Singer, S., Maticka-Tyndale, E., Willms, D. (1996) *"Overview of the Canadian Study on the Determinants of Ethnographically Specific Behaviours Related to HIV/AIDS."* Canadian Journal of Public Health, 87-supplement 1, May-June 1996, pp. S4-10. No charge.
- HPRU 96:12R Meddings, D.R., S.A. Marion, M.L. Barer, R.G. Evans, B. Green, C. Hertzman, A. Kazanjian, K.M. McGrail, S.B. Sheps, *"Mortality Rates After Cataract Extraction"*, Epidemiology 10(3):288-293, May, 1999.
- HPRU 96:11D *To Be or Not To Be in Hospital: A New Approach to an Old Problem.* October 1996. (Karen Cardiff, Samuel B. Sheps, David M. Thompson) \$8.00
- HPRU 96:10D *Price Regulation of Pharmaceuticals in Canada.* October 1996. (Aslam H. Anis, Quan Wen) \$8.00
- HPRU 96: 9D *Therapeutic Management of HIV Disease Among Physicians in a HIV/AIDS Drug Treatment Program: The Role of Experience and Physician Characteristics in Adherence to Clinical Guidelines.* September 1996 (Katherine V. Heath, Robert S. Hogg, Joel Manson-Singer, Martin T. Schechter, Michael V. O'Shaughnessy, Julio S.G. Montanger) \$8.00
- HPRU 96:8D *Some Data Issues in Genetics Research: Registries, Record Linkage, and Privacy Protection.* June 1996 (Patricia Baird) \$5.00
- HPRU 96:7D *The Eyes Have It: Cataract Surgery and Changing Patterns of Day Surgery.* June 1996 (David R. Meddings, Kimberlyn M. McGrail, Morris L. Barer, Clyde Hertzman, Samuel B. Sheps, Robert G. Evans, Arminée Kazanjian) \$8.00
- HPRU 96:6R Barer, M.L., Lomas, J., Sanmartin, C. (1996) *"Re-minding Our Ps and Qs: Medical Cost Controls in Canada"* Health Affairs, 15:2, Summer 1996, pp 216-234. No charge.
- HPRU 96:5D *What's Been Said and What's Been Hid: Population Health, Global Consumption, and the Role of National Health Data Systems.* February 1996 (Clyde Hertzman) \$8.00
- HPRU 96:4R Robert G. Evans (1996) *"Going for Gold: the Redistributive Agenda Behind Market-Based Health Care Reform"*, Journal of Health Politics, Policy and Law, Vol. 22, No. 2, April 1997. No charge.
- HPRU 96:3D *Sharing the Burden, Containing the Cost: Fundamental Conflicts in Health Care Finance.* January 1996 (Robert G. Evans) \$8.00
- HPRU 96:2D *Regulating Reproductive Technologies: Individual and Societal Interests.* January 1996 (Patricia Baird) \$5.00
- HPRU 96:1D *Is there Life After Death (of Federal Transfers).* December 1995 (Michael Mendelson) \$5.00
- HPRU 95:9D *Environment and Health in the Philippines.* December 1995 (Clyde Hertzman, Elma B. Torres, Ronald D. Subida and Maria Barroetavena). No Charge
- HPRU 95:8R Evans, R.G., Barer, M.L., Stoddart, G.L. (1995) *'User Fees for Health Care: why a Bad Idea Keeps Coming Back (Or, What's Health Got to Do with It?)'* Canadian Journal on Aging, Vol. 14 no. 2 1995, 360-390. No charge.
- HPRU 95:7D *Physician Expenditure Control in Canada: Re-minding our Ps and Qs.* September, 1995 (Morris L. Barer, Claudia C. Sanmartin and Jonathan Lomas). Cost \$7.00.

## HEALTH POLICY RESEARCH UNIT

### DISCUSSION PAPERS & REPRINTS

- HPRU 95:6R Barer, Morris L., Marmor, Theodore R., Morrison, Ellen M. (1995) "*Health Care Reform in the United States: On the Road to Nowhere (Again)?*" Soc. Sci. Med. Vol 41, No. 4, pp 453-460. No charge.
- HPRU 95:5R Robert G. Evans, Anthony J. Culyer (1995) "*Mark Pauly on Welfare Economics: Normative Rabbits from Positive Hats*". Journal of Health Economics 15 (1996) 243-251. No charge
- HPRU 95:4D *The Effects of British Columbia's Physician Payment Initiatives: Making Sense of the Dollars.* March, 1995 (Robert G. Evans, Marina V. Pascali and Morris L. Barer). Cost \$8.00.
- HPRU 95:3D *Research in Human Genetics: Promise, Pitfalls and Policy Challenges.* February, 1995 (Patricia Baird, M.D.). Cost \$5.00.
- HPRU 95:2R *Marketing the Market, Regulating Regulators: Who Gains? Who Loses? What Hopes? What Scope?* January, 1995. (Robert G. Evans).
- HPRU 95:1R Barer, M.L.. "*So Near, And Yet So Far: "A Canadian Perspective on U.S. Health Reform"*", Journal of Health Politics, Policy and Law, Vol. 20, No. 2, Summer, 1995.
- HPRU 94:10R Hogg, R.G., Strathdee, S.A., Craib, K.J.P., O'Shaughnessy, M.V. and Montaner, J.S.G., Schechter, M.T. "Lower socioeconomic status and shorter survival following HIV infection", *The Lancet*, Vol 334, p 1120-1124. No charge.
- HPRU 94:9R Evans, R.G. (Fall 1994) "Health and Wealth", *Daedalus*, Journal of American Academy of Arts and Sciences 123 (4): 21-42. No charge.
- HPRU 94:8D *An Empirical Evaluation of Computerized Databases for Emergency Care.* October, 1994 (George E. Pugh, Joseph K. Tan). Cost \$8.00.
- HPRU 94:7R Evans, R.G., Health, *Hierarchy and Hominids: Biological Correlates of the Socio-Economic Gradient in Health.* Reforming Health Care Systems, ed. A.J. Culyer and Adam Wagstaff. Cheltenham: Edward Elgar, 1996: 35-64. No charge.
- HPRU 94:6R Ellencweig, A.Y. and Pagliccia N. (1994), "Utilization Patterns of Cohorts of Elderly Clients: A Structural Equation Model", *Health Services Research* 29(2): 225-245. No charge.
- HPRU 94:5R Barer, M.L., R.G. Evans, M. Holt, J. I. Morrison. (1994), "*It Ain't Necessarily So: The Cost Implications of U.S. Health Care Reform*", *Health Affairs*, Vol. 13, no. 4, p.88-99, fall 1994. \$3.00.
- HPRU 94:4D *Diagnostic and Screening Programs for Fetal Anomalies and Genetic Disease: How should we evaluate them?* April, 1994 (P. Baird). Cost \$8.00.
- HPRU 94:3R Barer, M.L., Evans, R.G. and Hertzman, C. "*Avalanche or Glacier. Health Care and the Demographic Rhetoric*", *Canadian Journal on Aging*, Vol. 14 no. 2, 1995, p193-224. No charge.
- HPRU 94:2R Evans, R.G. "*Less is More: Contrasting Styles in Health Care*" *Canada and the United States, Differences that Count*, 21 -41. No charge.
- HPRU 94:1R Barer, M.L., Morrison, E., Morrison, I. (1994) "Canadian Physicians may hear footsteps of change as US tiptoes toward health care reform", *Canadian Medical Association Journal*, Vol. 150 (6), p 980-987. *This is a revised and shortened version of 94:1D.* No charge.
- HPRU 94:1D *Tip-toeing Toward Health Care Reform in the United States.* January, 1994 (M. L. Barer, E. Morrison, I. Morrison). \$5.00.