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HEALTH CARE REFORM: CONTROLLING SPENDING AND INCREASING EFFICIENCY

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INTRODUCTION

The share of public health spending in GDP and in total public expenditure has increased significantly over the past thirty years. Reform efforts to date have slowed this trend, but have not been sufficient to deal with many of the underlying pressures contributing to spending growth. Unless there are major changes in health-care policy, the demands of health spending on public-sector budgets are likely to grow further in coming years, these pressures arising at the same time as increased spending on public pensions. As a result, health-sector reform is a major political issue in many OECD Member countries. Without more fundamental reforms than those implemented in the 1980s, tax increases or service cut-backs appear unavoidable.

This paper primarily discusses various policy options which may help health goals to be more easily reached. A stock-taking of recent trends in health-care spending, and a brief assessment of the major forces driving spending growth, are presented in the first part. It is argued that, while income growth and wider insurance coverage have contributed to the increase in spending, probably more than half of the increase has arisen from developments on the supply side (*i.e.* arising from the regulatory framework and incentives facing health-care providers). This, in turn, suggests that the focus of policy should be there.

An overview of recent reforms and reform proposals is presented in the second part. Attempts to slow the growth of public health spending through budget caps or other "macro" instruments characterised the first round of reforms. However, with little attention paid to the underlying patterns of incentives, there is growing doubt about the capacity of purely macro-based approaches to sustain overall spending control, partly because of the negative effects they may be having on the efficiency of the system. Most of the second part deals with a broad outline of possible microeconomic reforms in the provision of publicly financed health services, drawing on the recent experience of a few leading countries. A summary and some concluding comments are presented in the third part.

HEALTH-CARE EXPENDITURES AND THEIR DRIVING FORCES'

Past trends

Health-care spending for the OECD area as a whole more than doubled as a share of CDP over the period 1960 to 1992. from under 4 per cent to just over 8 per cent (Table 1). In 1992, although levels may have been biased upwards by the

Table 1. **Total expenditure on health care in GDP, 1960-92**

Per cent of GDP

	1960	1970	1975	1980	1985	1990	1992[1]
United States	5.3	7.4	8.4	9.2	10.5	12.4	14.0
Japan	3.0	4.6	5.6	6.6	6.5	6.6	6.9
Germany	4.8	5.9	8.1	8.4	8.7	8.3	8.7
France	4.2	5.8	7.0	7.6	8.5	8.9	9.4
Italy	3.6	5.2	6.1	6.9	7.0	8.1	8.5
United Kingdom	3.9	4.5	5.5	5.8	6.0	6.2	7.1
Canada	5.5	7.1	7.2	7.4	8.5	9.4	10.2
Average of above countries	4.3	5.8	6.8	7.4	8.0	8.5	9.3
Australia	4.9	5.7	7.5	7.3	7.7	8.2	8.8
Austria	4.4	5.4	7.3	7.9	8.1	8.4	8.8
Belgium	3.4	4.1	5.9	6.6	7.4	7.6	8.2
Denmark	3.6	6.1	6.5	6.8	6.3	6.3	6.5
Finland	3.9	5.7	6.4	6.5	7.3	8.0	9.4
Greece	2.9	4.0	4.1	4.3	4.9	5.3	5.4
Iceland	3.5	5.2	6.2	6.4	7.0	8.2	8.5
Ireland	4.0	5.6	8.0	9.2	8.2	7.0	7.1
Luxembourg	..	4.1	5.6	6.8	6.8	7.2	7.4
Netherlands	3.9	6.0	7.6	8.0	8.0	8.2	8.6
New Zealand	4.3	5.2	6.7	7.2	6.5	7.3	7.7
Norway	3.3	5.0	6.7	6.6	6.4	7.5	8.3
Portugal	..	3.1	6.4	5.9	7.0	5.4	7.0
Spain	1.5	3.7	4.9	5.6	5.7	6.6	7.0
Sweden	4.7	7.2	7.9	9.4	8.9	8.6	7.9
Switzerland	3.3	5.2	7 0	7.3	8.1	8.4	9.3
Turkey	..	..	3.5	4.0	2.8	4.0	4.1
OECD Europe[2]	3.8	5.3	6.6	7.1	7.3	7.6	8.0
Total OECD[2]	3.9	5.5	6.7	7.2	7.4	7.9	8.4

1. The provisional **1992** ratios partly reflect a generally weak cyclical position of GDP (see Table *2).*
2. Unweighted arithmetic average. Excluding Luxembourg. Portugal and Turkey.

Sources: *1960-1990* OECD Health Data; **1992** OECD Secretariat estimates.

recession in some countries, most OECD countries spent around 7 to 9 per cent of GDP on health services. The United States is a clear outlier, with 14 per cent of GDP being devoted to health care. The expenditure share is substantially lower in Greece and Turkey (5.4 per cent and 4.1 per cent respectively).

There has been considerable variation in spending growth across countries in individual periods (Table 2). The health spending share in **trend** GDP rose by 1.9 percentage points during the 1970s for the OECD as a whole, but by only 0.8 percentage points between 1980 and 1992. This slow-down has been even sharper within Europe, with the health share growing by around 0.5 percentage points since 1980, compared with growth of about 2 points during the 1970s. A

Table 2. **Total expenditure on health care in trend GDP, 1970-92**

Change in percentage points

	1970 to 1980	1980 to 1990	1990 to 1992
United States	2.1	3.1	1.1
Japan	2.1	0.2	0.1
Germany	2.7	0.0	–0.3
France	1.8	1.2	0.2
Italy	1.8	1.1	0.2
United Kingdom	**1.5**	0.5	0.4
Canada	0.5	1.9	0.3
Total of above countries	1.8	1.1	0.3
Australia	1.7	0.4	0.1
Austria	2.8	0.3	0.3
Belgium	2.8	1.0	0.5
Denmark	0.8	*–0.6*	0.1
Finland	0.8	2.0	0.2
Greece	0.3	*0.9*	0.2
Iceland [1]	1.2	1.9	–0.3
Ireland	3.6	–2.0	0.1
Luxembourg [1]	2.7	0.4	0.2
Netherlands	2.2	0.1	0.4
New Zealand [1]	1.6	0.8	0.5
Norway	1.6	*0.9*	0.6
Portugal	3.0	–0.7	1.4
Spain	2.1	1.1	0.2
Sweden	2.3	–0.5	–1.2
Switzerland [1]	2.1	1.1	1.2
Turkey [1]	..	–0.1	0.1
OECD Europe [2]	2.0	0.5	0.2
Total OECD [2]	1.9	*0.6*	0.2

1. Changes in health share of nominal GDP. Series for trend GDP were unavailable.
2. Unweighted arithmetic average.

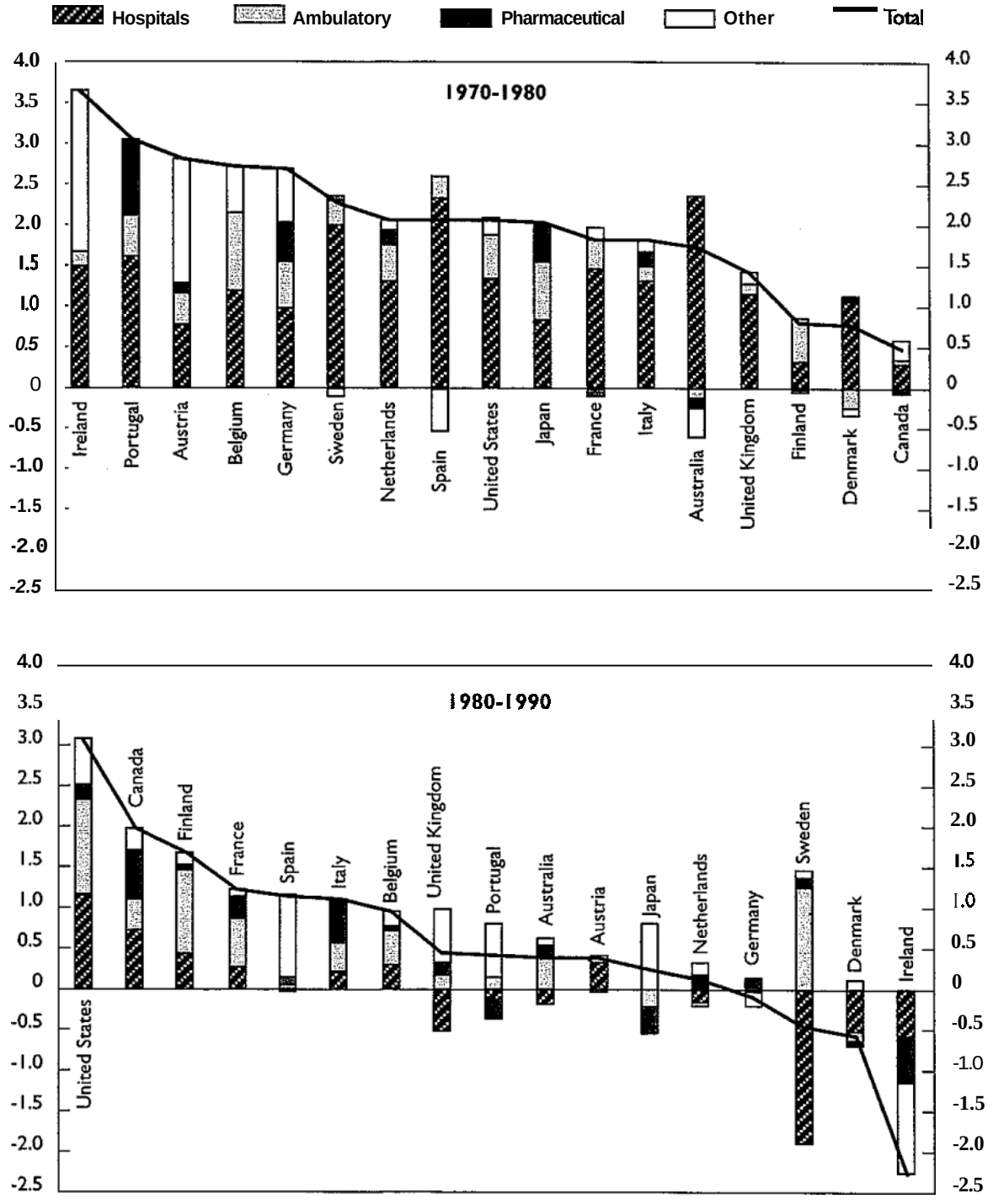
Sources 1960-1990 OECD Health Data; 1990-92 OECD Secretariat estimates.

similar sharp deceleration has been seen in Japan and Australia. In the United States and Canada, on the other hand, a quite different pattern emerged: in the United States. the spending share grew by 2.1 points during the 1970s (similar to the increase in Europe), but at twice this amount from 1980 to 1992; in Canada. the health share grew by only 0.5 points from 1970 to 1980, but by 2.2 points between 1980 and 1992.[2]

The contributions of the main sub-categories of the health sector to spending growth are shown in Figure 1 for 1970-80 and 1980-90. In the 1970s, growth in the hospital services sector was the major factor behind expenditure growth in many of the countries shown, particularly for the sizeable group where the GDP share of

Figure 1. ***Contribution of the components of health care spending to total health spending***

(Change in percentage points of trend GDP over period)



Source: **OECD Health Data.**

health spending increased by around 1.5 to 2.5 percentage points of GDP. Hospital spending generally grew at a much slower rate during the 1980s. and in most cases its impact relative to other sub-categories also declined. In some countries (*e.g.* the United States and Sweden). slower growth in the GDP share of hospital spending between the 1970s and 1980s was partially offset by faster growth in the share of the ambulatory, pharmaceutical, and/or "residual" components; this may indicate some substitution towards these other sectors in response to spending constraints imposed on hospitals.

By design, health spending by the public sector (Table 3) rose even more rapidly than total health spending in the 1960s and 1970s as coverage of public insurance was expanded. The unweighted average OECD public share in total health

Table 3. **Public share in total spending on health, 1960-92**

Per cent

	1960	1970	1975	1980	1985	1990	1992
United States[1]	24.5	37.2	41.5	42.0	41.4	42.2	45.7
Japan	60.4	69.8	72.0	70.8	72.7	70.8	71.2
Germany	66.1	69.6	77.2	75.0	73.6	71.8	71.5
France	57.8	74.7	77.2	78.8	76.9	74.5	74.7
Italy	83.1	86.4	86.1	81.1	77.1	77.8	75.2
United Kingdom	85.2	87.0	91.1	89.6	86.3	84.4	84.4
Canada	42.7	70.2	76.4	74.7	74.7	73.1	72.2
Australia	47.6	56.7	72.8	62.9	71.5	68.1	67.6
Austria	69.4	63.0	69.6	68.8	66.7	66.1	65.2
Belgium	61.6	87.0	79.6	83.4	81.8	88.9	88.9
Denmark	88.7	86.3	91.9	85.2	84.4	83.6	82.0
Finland	54.1	73.8	78.6	79.0	78.6	80.9	79.3
Greece	64.2	53.4	60.2	82.2	81.0	84.2	76.1
Iceland	76.7	81.7	87.2	88.2	86.4	86.8	85.2
Ireland	76.0	81.7	79.0	82.2	77.4	74.7	..
Luxembourg	..	..	91.8	92.8	89.2	91.4	..
Netherlands	33.3	84.3	73.4	74.7	75.1	71.4	76.6
New Zealand	80.6	80.3	83.9	83.6	85.2	82.2	79.0
Norway	77.8	91.6	96.2	98.4	96.5	94.5	94.8
Portugal	..	59.0	58.9	72.4	56.3	69.4	69.8
Spain	58.7	65.4	77.4	79.9	80.9	80.5	80.5
Sweden	72.6	86.0	90.2	92.5	90.3	89.7	85.6
Switzerland	61.3	63.9	68.9	67.5	66.1	68.4	72.5
Turkey	..	..	49.0	27.3	50.2	35.6	..
OECD Europe[2]	67.9	77.2	80.2	81.7	79.9	79.9	74.3
Total OECD[2]	63.9	73.8	77.6	78.1	77.4	76.9	72.4

1. Values are under-estimated in the United States to the degree that the expenditures associated with the tax exemption of employer contributions to employee health plans are not included. This might raise the estimate of the share of spending in GDP in recent years by 8-9 percentage points of GDP.
2. Unweighted arithmetic average. Excluding Luxembourg, Portugal and Turkey.

Sources: 1960-1990 OECD Health Data: 1992 OECD Secretariat estimates.

spending rose rapidly from 64 per cent in 1960 to 74 per cent in 1970 and reached over 78 per cent in the early 1980s before declining slightly in more recent years. Excluding Turkey (because of concerns about data comparability), the public share currently ranges from 46 per cent in the United States, to 78 per cent on average in Europe and up to 95 per cent in Norway.[3]

The health-care sector is clearly an important industry in OECD economies. For the OECD countries taken as a group, employment in the health-care sector is around 6 per cent of total employment; in Norway, Sweden and Switzerland it is between 9 and 10 per cent and it is over 8 per cent in Finland (Table 4). This

Table **4. Employment in health care, 1970 to most recent year**

Per cent of total employment

	1970	1980	1990	**Last** available year
United States	**3.7**	**5.3**	..	**6.2**[1]
Japan	1.4	..	**2.4**	2.4[2]
Germany	2.9	**4.5**	..	**5.5**[1]
France	..	..	..	6.8[3]
Italy	1.6	**3.9**	4.3	**4.44**
United Kingdom	3.1	**4.7**	4.6	**4.8**[4]
Canada	..	**4.3**	5.3	**5.5**[5]
Australia	..	**6.5**	**6.8**	6.9[4]
Austria	..	..	..	..
Belgium	2.5	**4.3**	..	4.6[6]
Denmark	3.1	**4.8**	**4.7**	**4.72**
Finland	**3.6**	5.1	**6.8**	8.3[4]
Greece	1.4	**2.0**	3.3	3.3[2]
Iceland	**4.0**	**5.8**	**6.9**	6.0[5]
Ireland	..	**4.8**	5.3	**5.44**
Luxembourg	..	..	..	..
Netherlands	0.4	**6.4**	**6.4**	6.6[4]
New Zealand	..	..	4.3	**4.32**
Norway	**4.2**	**8.0**	..	**9.1**[1]
Portugal	1.7	**2.2**	**2.9**	2.9[2]
Spain	..	2.6	**3.4**	**3.42**
Sweden	**6.2**	**9.9**	**9.9**	**10.04**
Switzerland	**2.8**	**4.4**	..	**9.95**
Turkey	**0.4**	**0.7**	**0.9**	0.9[2]
Total OECD[7]	**2.8**	5.0	**5.2**	**5.8**

1. *1989.*
2. 1990.
3. 1987.
4. ***1992.***
5. 1991.
6. 1981.
7. Where data are available, and excluding **Turkey.**

Source: OECD Health Data *File.*

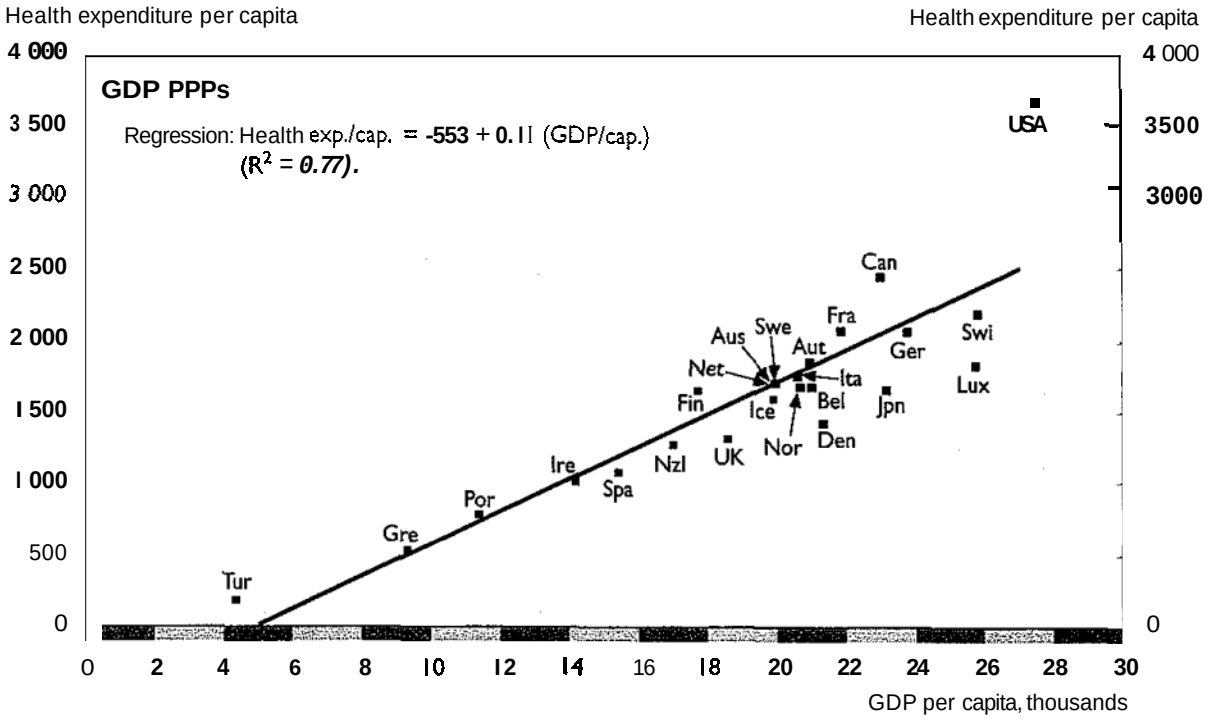
suggests that, in considering reforms, governments need to look beyond the immediate problems of public finance and deficits to the broader issue of the efficiency of health-care provision and the implications for overall economic performance. Channelling more resources than necessary into the health sector reduces the capacity of economies to expand over time. Unnecessary increases in health-care spending also limit governments' fiscal capacity to address other social goals, including those which might have a greater positive impact on health outcomes.

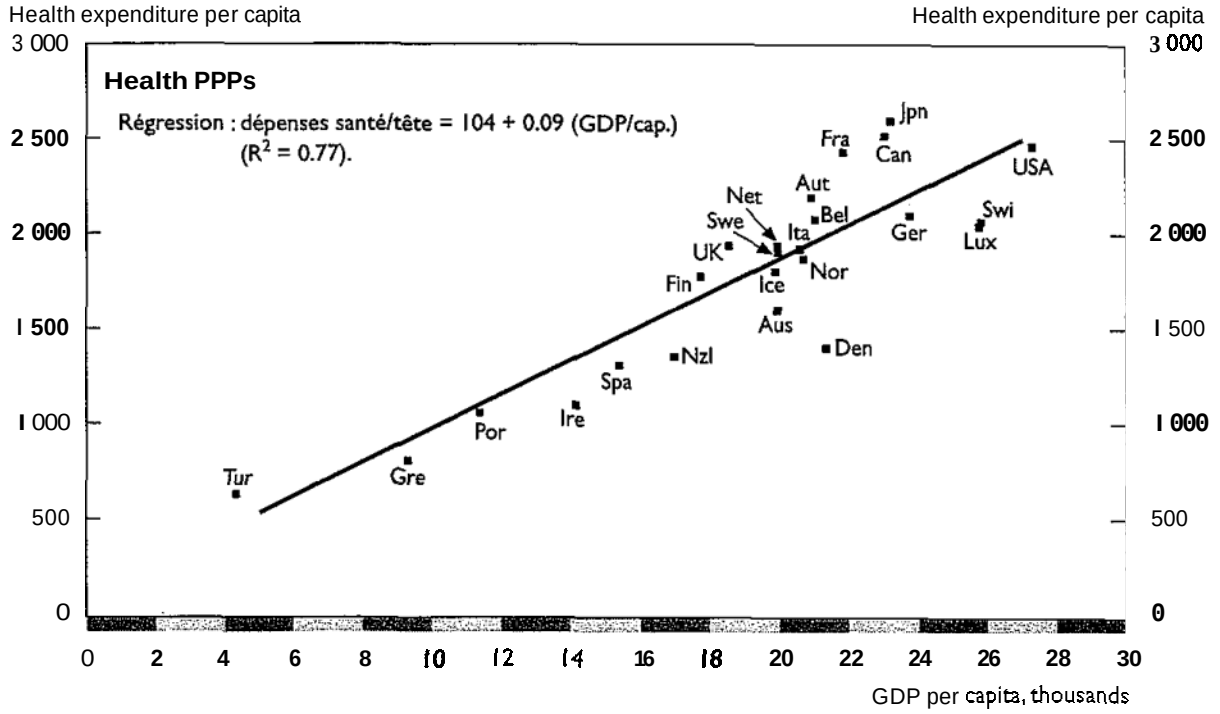
Factors underlying past and future spending pressures

A complex mix of factors – both supply and demand related – has contributed to the increase in health-care spending. At the present state of knowledge, it is difficult to identify all factors and their importance with any precision. However, rough estimates reported in Oxley and MacFarlan (1994) suggest that "demand-side" effects associated with population ageing, increased incomes, and increased insurance coverage may explain only a portion – probably under half – of overall expenditure growth. This leaves a large residual which, to a significant extent, may be attributable to developments affecting the provision of health services. A particularly important role appears to have been played by technological change, broadly defined to include techniques, drugs, equipment and procedures used in providing health care (Weisbrod, 1991). Also contributing to increases in health expenditure have been growth in medical personnel and facilities, and increases in real health-care prices. These influences can loosely be labelled as "supply effects", in the sense that they often stem from the incentives facing providers rather than consumers of health care. The effects of low marginal prices to consumers for new technol*ogy* and treatment cannot be ignored. Nevertheless, access to these services is still largely controlled by doctors and other health-care professionals.

The preceding discussion implies that an assessment of potential directions of reform to health-care systems should pay particular attention to the supply side of the health market, including the mix of incentives and restraints facing providers in hospitals and private practice. These issues are considered in more detail in the second part. Further indications of the need for and scope of reforms are provided by the widespread differences between OECD countries in the level, mix and costs of services that are provided. The level of GDP per capita – probably acting as a proxy for a range of supply- and demand-related factors – "explains" a large part (around 80 per cent) of the cross-sectional variation in health spending per capita amongst OECD countries, but substantial differences in spending levels remain even after taking GDP into account (Figure 2, upper panel). Adjusting health spending by health input prices rather than economy-wide prices (in order to compare volumes of health services) provides a somewhat different, but no less varied, picture of the large inter-country variation in health spending (Figure 2, lower panel).[4] Countries also differ widely with respect to the division of health spending between in-patient care, ambulatory care and pharmaceuticals; and, within the

Figure 2. ***Health spending versus GDP, 1992***





Note: In both figures, national levels of GDP per capita are compared using GDP purshasing power parities based on US dollar exchange rates and with price level OECD = 100. In the top figure. national health expenditures are also compared using GDP *PPPs.* In the bottom figure, health expenditures are compared using *PPPs* for medical services.

Sources: OECD, **1990b;** OECD, **1993e;** OECD Secretariat estimates.

Box A. Characteristics of health finance/insurance systems

Types of insurance arrangement

Private insurance systems cover individuals or groups, setting premia on the basis of their risk characteristics. They are flexible, providing a range of insurance packages with different degrees of risk. High-risk individuals may find it difficult to obtain cover. Only two countries (the United States and Switzerland) have private insurers covering major health-care risks for the bulk of the population (although in Switzerland insurers are heavily regulated and required to provide community rather than individual risk-rating – see below). In most other countries private schemes can complement public schemes at the margin. In some, higher-income groups (*e.g.* Germany) or certain groups (civil servants in Spain) can opt for private insurance often at lower premia.[1] In other countries, supplementary insurance is available from private insurers or "friendly societies" to cover patient cost-sharing (user charges) in state schemes (*e.g.* France), for better physical surroundings (private rooms), for care as private patients of hospital specialists (*e.g.* the United Kingdom, Australia, Austria, Denmark and Ireland) or for risks not covered by state insurers (*e.g.* Canada and Australia). In many countries these premia are tax deductible.

The **social insurance** systems are based on statutory sickness funds most often governed by the social partners and overseen and tightly regulated by the government. Risks are pooled in the fund and premia are income-related over some range. Premia sometimes vary across funds to allow for differences in risk structure of the membership; in some cases, these premium differences are offset by government support or transfers from their funds. Membership is compulsory for certain groups (*e.g.* those with lower incomes) and in some cases cover virtually the whole population. There are generally numerous funds organised on corporatist (*i.e.* blue or white collar), industry, religious or geographical lines (Japan, Germany, France, Austria, Belgium, Luxembourg and the Netherlands).

There are two forms of **tax finance.** In the first, the state insures and supplies health care in the same organisation and finances it as part of the budget. However, responsibility of production/provision is often delegated to lower levels of government (Italy.the United Kingdom (until recent reforms), Denmark, Finland, Greece, New Zealand (until recent reforms), Norway, Spain and Sweden). Alternatively. in some countries (Canada and, to a lesser degree, Australia) the government acts as a single insurer raising the necessary revenue through the tax system and paying largely private (mainly non-profit) suppliers.

Degree of insurance cover

As regards **population coverage,** the United States and Turkey are the only OECD countries where a significant portion of the population lacks insurance cover. In the United States, despite several government programmes covering **24** per cent of the population – mainly Medicare for the retired and Medicaid for some groups

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of the poor – around 15 per cent of the population does not have insurance.[2] Private insurance in Switzerland has been able to achieve high levels of coverage reflecting a number of factors: insurers cannot refuse coverage, some cities and cantons make insurance mandatory; and there are significant federal government subsidies to the insurance funds.[3] In both countries, the "affordability" of insurance has become a political issue as higher premia have taken an increasing share of income. Turkey, where around 55 per cent of the population is currently covered by public insurance, aims at reaching full coverage in coming years.

There are relatively modest differences across countries in the **risks covered.** All countries provide coverage for hospital and ambulatory medical care. Under state systems, this package is generally defined by law and the procedures covered have been progressively widened over time as new medical technology has appeared and been incorporated into accepted medical practice. Greater differences exist in the area of drugs, dental care and protheses, eyeglasses and hearing aids, for long-term care and for *maisons* de *repos*, spas and sanitoria.

Cost-sharing by patient. Co-payments vary depending on the type of service. For in-patient care (the largest component of health spending) ten countries have free services (or virtually so) and an additional six charge a daily rate of $10 or less. Larger co-payments are charged in Finland, Portugal and, in relation to average incomes there, in Turkey. Most private insurers in the United States impose a large "deductible". Japan and France have large co-insurance rates (patients pay a percentage of the total). However, in France **83** per cent of the population has additional insurance which covers most of this charge while around 12 per cent of the population – mainly the chronically ill who consume roughly half of the social insurance spending – are exempt4

Co-payments and co-insurance tend to be higher for ambulatory care and medical tests. Only ten countries have free or virtually free services for GPs and nine for specialists. Co-insurance is nonetheless small in Luxembourg and in France once complementary insurance is taken into account, but is somewhat higher in the United States, Japan, Belgium, Iceland. Norway, New Zealand, Portugal and Sweden. Pharmaceuticals have yet higher rates of co-insurance: only five countries have free drugs or charge only token payments.

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1. In Germany, one-quarter has the option of taking out private insurance which can, in certain cases, be cheaper. However, those with higher risks, and with difficulty in getting low-cost private policies, take out cover with the statutory sickness funds. Only about 8 per cent are privately insured. The Netherlands had all the population covered for long-term and psychiatric care (approximately 45 per cent of total health spending]. For the remaining risks, 60 per cent of the population is covered by social security health insurance, with civil servants and **30** per cent of those in higher-income groups having private insurance. Partly to remove the element of adverse selection in the system (older people were over-

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represented in the state scheme). all individuals are to be covered by a state scheme providing a basic package of cover.

2. A significant additional number do not have as much insurance as they would like or temporarily lose insurance in between jobs. For some insurance is available but the cost is *so* high, that they have decided (or been obliged) to self-insure. This does not necessarily mean that they do not have access to health care as many are treated in public hospitals, but the amount and quality of care is lower (CEA, 1994).
3. However, pre-existing conditions can be excluded from cover for a certain period and there is often an initial waiting period. Premia are largely based on the age of entry into an insurance fund such that those obliged to change insurers later in life can face stiff increases in premia. This has become more prevalent: funds with an older age structure of insurees have higher premia, inciting younger persons to opt for funds with lower risk structures and premia. To ease the financial pressure on the funds with a high risk structure. funds have been amalgamated and then the premia of older members have increased.
4. Those uncovered are largely in lower income groups.

hospital sector, there is significant variation across countries in bed numbers, admission rates, lengths of stay and occupancy rates (OECD, 1993*c*).

While such differences may, in part, reflect broader cultural and social preferences regarding health services, it is also likely that the particular institutional structures (and associated incentives] adopted by each country for funding and providing health care have had an important effect. Some background information on the financing and delivery of health services is presented in Box A (Finance/Insurance Systems) and Box B (Supply Arrangements).

Moreover, cross-country differences in health spending are, in general, only weakly correlated with standard indicators of health outcomes, such as life expectancy and infant mortality rates (Oxley and MacFarlan, *op. cit.*). This, combined with the high degree of uncertainty that surrounds much of medical practice (see, for example, Commissariat Général du Plan, 1993) raises questions about the effectiveness at the margin of further increases in health spending, at least under current institutional arrangements.

POLICIES TO IMPROVE THE PERFORMANCE OF HEALTH-CARE SYSTEMS

There are three broad goals that governments generally pursue in the health-care area:

- **Equity:** citizens should have access to some incompressible minimum level of health care, and treatment should be based on need for care rather than

Box B. **Supply arrangements**

Arrangements for the supply of medical services – particularly ambulatory and hospital care -can be thought of in three categories. Drawing in part on OECD (1992),[1] these will be termed the reimbursement, contract, and integrated approaches. The differences between these approaches reflect two inter-related influences: the nature of the relationship between **funders** and **providers** of health services; and the relative importance of **patients** and **third-party funders** in determining the distribution of health funding between providers. No country fits neatly into one category; indeed, many countries have elements of all three, whether because of various supply arrangements found in the hospital sector, or differing treatments of ambulatory and hospital-based services.

With the **reimbursement** approach, providers are funded retrospectively for services supplied to patients. These payments may be received either directly from patients (who are usually reimbursed in whole or in part by insurers), or by providers billing insurers for services supplied. Patient choice (based on location, services required, General Practitioners' (GP) advice, etc.) therefore has an important influence on how health funding is distributed amongst providers, and hence on how supply arrangements develop. The reimbursement approach, often coupled with fee-for-service payment arrangements, can be found in systems with multiple insurers and multiple (usually private) suppliers, as in the United States, Japan and Switzerland; closer contractual relationships may be difficult to arrange in such .circumstances There is also widespread use of retrospective, fee-for-service systems in ambulatory services, where freedom of consumer choice over GPs is often emphasised. Cost control by payers is difficult in this environment.

The **contract** approach involves some form of prospective agreement between third-party payers and health-care providers, establishing the terms and conditions of payments for health services. Such contracts give payers greater control over the total level of funding, and its distribution, than with the reimbursement approach. This approach tends to be found in social insurance systems where there is usually compulsory insurance provided through a limited number of public or non-profit agencies. Hospital funding is usually by some form of per diem rate or case-mix payment,[2] but with prospective budgets or caps covering total allocations (as in Germany and Belgium). Preferred Provider Organisations (PPOs) in the United States also use this approach. Consumer choice, as far as pre-paid services are concerned, is restricted to providers having contracts with funders (but they may also be able to receive treatment from other suppliers under different reimbursement conditions).

In **integrated** health systems, the same agency – usually local or central government – controls both the funding and the provision of health services The cost uncertainties and contractual complexities in the above two approaches aretherefore "internalised" through vertical integration, and administrative arrangement used to co-ordinate the funding and provision arms. Medical personnel – including GPs as well as hospital-based doctors – are generally paid salaries, and

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the remainder of hospital spending is bulk funded. This has been the main arrangement (usually for GPs as well as hospitals) in the Nordic countries and Turkey; for public hospital services in France, Italy, Australia, Greece, Iceland, Portugal and Turkey; and in the United Kingdom and New Zealand before recent reforms toward contract approaches. Health Maintenance Organisations (HMOs) in the United States are "micro" examples of the integrated approach: in choosing an HMO scheme (possibly because of a price advantage).consumers also accept restricted choices over primary and secondary providers.

1. The eight-way categorisation of health systems in OECD (1992) is also based on whether insurance cover is compulsory or optional. In addition, the term "reimbursement" is used somewhat more broadly here, referring to retrospective payments to providers rather than (as in OECD, 1992) to payments from insurers to patients.
2. The main funding methods used for hospitals and doctors are described in more detail in Boxes C and D.

solely on income. Further, individuals should be offered some degree of protection against the financial consequences of falling ill, and payment for this protection should be income-related rather than based on individual risk.

- **Micro-economic efficiency:** quality of care and consumer satisfaction should be maximised. and costs minimised.[5] Micro-efficiency also requires taking into account "spill-over" effects (*e.g.* due to communicable diseases and productivity-related effects on the labour force). Dynamic efficiency considerations include searching for organisational forms and technological advances that improve the productivity of health resources. More broadly, in assessing the most efficient ways to improve health "outcomes" (or health status), governments need to consider whether increased resources channelled into mainstream health services are not draining resources from other, more effective, programmes.[6]
- **Macroeconomic cost control:** the health sector should consume an "appropriate" share of GDP. Although there is no necessary reason to restrain the level of spending simply because it is high or growing rapidly, spending limits can become desirable where government policies or private market failure lead to excess supply or demand for health services.

Two characteristics of the health market may lead to excess provision of services. The first concerns **information failures.** The vast majority of patients lack the information necessary for informed choice. Hence, they are compelled to delegate, to varying degrees, treatment decisions to medical professionals who also supply the services demanded – creating a potential conflict of interest. Even within the medical profession, there are pervasive uncertainties about treatment options and consequences. The second is the problem of **moral hazard.** On the demand side, this may be reflected in an increase in the demand for covered health care because patients do not face the full marginal cost. But moral hazard is not limited to demand. On the supply side, for example, the incentive to over-supply medical services may be heightened when a third-party pays the bulk of any services that doctors choose to provide. These effects may be strongest under fee-for-service payment arrangements.

Faced with budget pressures and evidence of cost inefficiency, all OECD countries have introduced health-care reforms or are planning to do so in the near future. While the direction of reforms has not always been the same in all countries (see the section on "factors influencing the direction of reforms"), reforms can be broadly categorised as "macroeconomic" or "microeconomic". Budgetary caps and other top-down (macro) measures to control expenditure were, in general, introduced first as governments grappled with the budgetary consequences of the unremitting rise in health provision [see the section on "measures to control spending (macro control)"]. But as the limits and weaknesses of overall budgetary control have become clearer, more recent reforms have sought to tackle the various policy objectives in a more integrated and consistent manner, which also allows some of the broader influences affecting health to be taken into account (see the section on "micro-efficiency and supply"). These reforms should also provide better means of dealing with such issues as the evaluation of new technologies, ageing populations, pharmaceuticals, and cost-sharing by health consumers (see the section on "some specific issues").

Factors influencing the direction of reforms

Many governments have already undertaken substantial reforms to health systems over the past decade (for a detailed description see OECD. 1992 and OECD. 1994*c*). The direction of reform has not been uniform, however – neither across countries nor across time – and has depended on two sets of factors. The first is the starting point of the reforms. The wide variety of financing, contractual and regulatory arrangements (see Boxes A and B), and associated incentive structures, has meant that countries are not confronted with problems arising from financing and delivery of health care with the same intensity. For example, in countries such as the United Kingdom and Sweden – where, until the early 1990s, on-budget financing of hospital care with salaried doctors helped restrain spending – key reforms have

been concerned with increasing effectiveness (with significant emphasis on reducing waiting times). In contrast, in the United States, Germany, France, and other systems which traditionally relied on Fee-for-service remuneration of hospitals and doctors, the focus has been on overall expenditure restraint without loss in quality of delivery. The equity and access aspects of health provision are also prominent aspects of the reform debate in all countries, most visibly in the United States.

Second, countries place different weights on objectives, or face different political pressures from the health-care providers, patients and taxpayers. Reform packages have thus taken different shapes even for countries having similar problems. Inherent in this is the potential conflict between the three objectives described at the beginning of the second part ("policies to improve the performance of health-care systems). For example, restraining general government expenditure can be achieved by increasing the amount of out-of-pocket payments by patients or by restraining the revenues of the health-care providers. The first, however, can conflict with the goal of widespread access to health care. The second, particularly if not accompanied by measures to improve effectiveness, may lead to reductions in output, growing waiting lists, and less consumer satisfaction. Governments have had to balance these different objectives, in part by shifting emphasis over time as the consequences of their original choices manifest themselves.

Measures to control spending (macro control)

Most OECD governments now impose some form of overall constraint on health spending. Particular attention has been paid to hospital services – usually the largest spending item and, in the past decade, the most closely controlled. But the rapid rise in ambulatory and pharmaceutical spending has led a few governments to broaden control to include these components as well.

One feature contributing to cost control is strong monopsony power in dealing with providers – either by having all funds flowing through one budget, or through consultation between funders in the formulation of overall spending constraints (Evans and Stoddart, 1990; Abel-Smith, 1992; and Wolfe and Moran, 1993). The actual process that this takes depends on the degree of centralisation of spending and decision-making. For example:

- Overall spending control is easiest in systems where there is a single funder; for example, in the United Kingdom, Ireland and New Zealand, health-care spending is a line budget item with much of health supply provided by the state. However, such a system needs to be complemented by sanctions to prevent or re-coup overspending.[7]
- Where local, county or regional governments organise health supply, central authorities can find overall expenditure control more difficult. However, constraints on transfers from central to local government and/or centrally

imposed limits on local tax rates may help create implicit targets and the means to achieve them.[8]

- In social security systems (especially where there is a large number of sickness funds), expenditure restraint requires co-ordinated action on the part of the funds *vis-à-vis* the providers, often accompanied by government-induced restrictions on increases in compulsory health insurance contributions.[9]

The **techniques** of control have varied across countries. In the hospital sector, controls have had the following elements:

- Prospective budgets per hospital are widely used, with sanctions in the case of cost over-runs and measures to prevent income substitution (*e.g.* hospitals requiring patients to pay supplementary charges). Variants of prospective budgets were in place in all but four countries by the end of the 1980s (the exceptions were the United States, Austria, Luxembourg and – apart from one canton – Switzerland), although with varying degrees of success.
- There were efforts to control the number of new hospitals and the spread of costly medical equipment. "Certificate of need" regulations for new hospitals and central controls on capital spending were widespread. These were often accompanied by measures to decrease excess beds, with all countries except Japan reducing bed numbers per capita over the 1980s. However, these reductions have proved more difficult to realise in the social security systems and private insurance systems where there is less central control.
- In a few countries, there were also direct controls on manpower, service volumes, or pay rates. Input controls were, in fact, the main mechanism of cost control in Italy, while in Germany and Belgium bed-day quotas were introduced.

With continued growth in other components of health spending, reforms have also been introduced or tightened in the ambulatory sector and for pharmaceuticals. To restrain overall spending:

- Fees for ambulatory care services are centrally negotiated in many countries. A few countries have placed an overall budget cap on physicians' or other health professionals' income – such that increases in volumes of care are compensated by reductions in the average fee paid to the doctor for services (Germany and Canada), and for laboratory tests and nurses in private practice (in France).[10]
- The relative prices of different medical services (tests versus treatment) have been readjusted, and direct limits placed on out-of-hospital pathology tests (France and Belgium).

– Pharmaceutical products have been restricted through the use of "negative" and "positive" lists.[11] Prices or profits in this sector have been tightly controlled, incentives to use cheaper generic products increased, and attempts made to change the prescribing practices of doctors (*e.g.* peer comparisons).

Effectiveness and sustainability of *controls*

The marked slowdown in the growth of health spending – particularly the public component – in the *1980s* has been attributed generally to the efforts of government macro-controls on spending. While there is still no consensus on their impact, tests based on cross-section data (Gerdtham *et al., 1992, 1994)* suggest that the presence of macro-controls does not explain the cross-country differences in levels of spending. This is perhaps not surprising. Aside from the data problems which hamper comparability, spending controls are probably most likely in countries with high levels of spending, and it may take considerable time before they show up in differences in relative spending levels across countries. Furthermore, there are considerable difficulties in assessing when budgetary controls begin to bite (as in the example from Sweden cited in note 8).

Several factors reduce the effectiveness of budgetary controls or undermine their sustainability. These are grouped here in three categories, covering the comprehensiveness of controls, effects on access, and effects on efficiency.

Partial controls tend to produce spill-overs of demand and spending into less-controlled areas. In general, the share of ambulatory care in total spending rose over the 1980s, partly in response to controls on hospital spending (Abel-Smith, *1992);* increases were particularly marked in countries with fee-for-service systems (*e.g.* France and Canada). In other cases, where budget controls have constrained the public system, some demand has shifted to private hospitals or "private" beds in public hospitals (*e.g.* Australia), often because of dissatisfaction with waiting times, concern over the quality of care, and lack of responsiveness to patient needs.[12] This process has often been accompanied by an expansion of private insurance markets. Furthermore, price controls in fee-for-service systems may be partly or fully offset by volume increases.

A second set of problems concerns the equality of access to health care, particularly in connection with apparent limitations on the availability of public health services. Concerns about waiting lists have been expressed in many countries (see OECD, 1994*c*). In this situation, less-constrained private-sector health services tend to flourish relative to public-sector services, and patients with access to the former may then be seen to receive superior access and treatment. Moreover, particularly in the public sector, some services may be eliminated, waiting times may increase for "less-urgent" treatments and "lower-priority" patients, and seemingly arbitrary methods may, at times, be used to allocate health resources. Sharp

reductions in spending, lower services and longer waiting times for elective surgery or visits to hospital specialists can be followed by a strong negative reaction from the electorate – *cf.* the United Kingdom and Ireland – leading to pressures for increases in spending.[13]

Finally, macro-budget constraints alone rarely appear to have encouraged greater efficiency and effectiveness of providers, and in some cases may have weakened the achievement of those objectives.[14] Hospital budgets are most often based on historical costs, penalising efficient producers and placing little pressure on inefficient providers to improve. When accompanied by budget-line restrictions or limitations on hiring, aggregate controls can reduce flexibility in allocating resources more effectively within individual hospitals. Where unspent funds are clawed back at the end of the budget period and future budget allocations are based on previous years' spending, there are definite disincentives to save on resources.

The above considerations therefore suggest three elements that may contribute to the success of macro-level controls. Where possible, such controls should:

- have broad coverage over the health-care industry rather than focusing on just one sector;
- aim at total spending rather than just on prices or volumes;
- be accompanied by micro-level reforms to improve efficiency

Micro-efficiency and supply

Increasing efficiency would release resources to reduce waiting times where they exist, and reduce cost pressures more generally. The role of health funders and their relationship with providers of health care in this process are discussed first, focusing on the provision of secondary care (in hospitals, clinics, etc.), which, on average, absorbs nearly half of total health spending in OECD countries. Reforms primarily affecting the patient/doctor relation in the primary-care environment are presented next, followed by a discussion of issues specific to pharmaceutical spending. Issues relating to the accountability of purchasers are explored subsequently,.

Efficiency problems in *the hospital sector*

There are several factors affecting hospital efficiency. First, as noted, the medical profession has had a strong hand in resource allocation decisions and, partly guided by ethical concerns, the main objective has been to provide the best care for the patient regardless of cost.

Second, the management capacity and information necessary for effective decision-making has been weak; not only has there been little information on the costs of different procedures, where such information has been available there has often been considerable resistance to its use (OECD, 1993*b*). Change has taken place in the past half decade (OECD, 1994*c*), but still too little is known about the relative costs of different medical treatments, their effectiveness or the costs of caring for individual patients. While providers bear much of the responsibility, the payers (insurers) and regulators are also to blame because they have failed to motivate and adequately oversee suppliers.

Much of management inefficiency, however, has little to do with medical care – relating more to poor control and organisation of human and physical resources.[15] In some cases, services which could be more effectively organised by out-sourcing have been produced in-house, and these can represent up to half of per patient costs. The internal flexibility of labour has been limited – many tasks which could be carried out by less skilled workers have been restricted to medical staff.[16] Control of stocks of material has been weak. Capital spending has often been allocated separately from current spending and written-off immediately. With capital virtually free to the hospital operator, capital intensity has tended to be too high. Even where hospitals are independent and under contract, the payment methods have not encouraged greater cost efficiency, in most cases encouraging longer stays or additional and possibly unnecessary treatment. Further, increased management capacity may not, in itself. achieve desired results – for example, where there are inadequate accountability systems to ensure that managers focus on reaching the desired goals.[17]

Pricing arrangements can also be highly distorting. In many countries – particularly those with contract or fee-for-setvice arrangements – prices for individual medical procedures often have little relation with the relative resource costs or with the cost-effectiveness of treatments. International comparisons of fee structures indicate a wide variation in both the price levels and in relative prices for similar medical acts across countries (OECD, 1987). Furthermore, price levels and, most importantly, relative price structures, can remain fixed over long periods even where technological change affects costs.[18] This can lead hospitals or doctors to focus on, or promote, procedures where the price offered relative to the cost is the highest, leading to a misallocation of resources within the health sector, an impact on overall system costs and, potentially, detrimental effects on patient health.

Approaches to improving micro-efficiency

A number of countries have recently experimented with more wide-ranging reforms in the hospital sector.[19] The details of each system differ, depending in part on the particular pressures facing governments at the time they were introduced.

The rate of progress has also varied as the plans have been contentious in all of these countries. In many respects, the United Kingdom has progressed furthest along this road; a fuller description of the UK reforms, which include many of the elements described below, is presented in OECD (1992) and OECD (1994*b*).

The central requirement for improving efficiency is to clarify and strengthen the role of health funders. Funders – whether public authorities, sickness funds, or private insurers – have often been (and still are in some cases) relatively passive intermediaries between health consumers and providers. Their function has been to allocate available funds amongst an established group of health-care institutions, usually employing payment methods such as block grants, per-diem payments or fee-for-service systems which paid little attention to issues of resource allocation or value for money and, in the case of the latter, permitted supplier-driven spending increases to go unchallenged. Instead, the role of health funders – in public systems at least – needs to be defined such that they are both accountable to the state for cost control, and are agents for health consumers with respect to assessing and purchasing health care. These functions are discussed below.

- Increasing accountability of purchasers ***for*** cost control

Under these reforms, health funders are generally given an overall prospective budget cap. They are responsible for choosing contracting arrangements with providers (including incentives and sanctions) such that total spending remains within this limit. These arrangements may, for example, require that cost over-runs by providers are paid back in following years (rather than funders being forced to finance deficits, as has happened in Italy).

How the budgetary cap is best achieved will depend on the health system concerned; however, many of the existing approaches towards macro-control (as discussed in the section on "measures to control spending") continue to be relevant. For example, mechanisms for setting overall public health spending already exist in countries where health care is financed through national budgets or monitored by the state (*e.g.* the United Kingdom, New Zealand and the Nordic countries); in these cases, the emphasis is on finding the appropriate capitation-based formulae for distributing this global budget amongst regional health purchasers. In systems with a number of social security funds, setting a ceiling on contribution rates (as in Germany) may achieve the same results. Similar methods may need to be employed where the responsibility for health care is handled by lower levels of government. In private-sector systems (the United States), such arrangements are difficult to achieve (although the Administration's health reform proposals (now abandoned) included a mechanism to limit expenditure in the case of failure to achieve the targeted slowdown).

- Better purchasing agents

A second main element in these reforms is that funders should become more effective purchasing agents for health consumers. This means that funders are in a position to be much more active in assessing the relative merits and cost-effectiveness of different treatment strategies, and in selectively buying health services from potential suppliers. Funders, in their new role, are then accountable to consumers for the quantity and quality of medical services provided.

There are some advantages to systems where there is a single purchaser responsible for the health needs of its local population. Scale considerations may make the purchaser better able to pay for the needed information to set appropriate contracts. The purchaser can use its monopsonistic powers to obtain increased information from providers, initiate studies on the desirability and effectiveness of alternative treatment strategies, and put pressure on providers through contestability and yardstick competition.[20] Given the comprehensive and long-term relationship with health consumers, there is scope in single-payer systems for the purchaser to take a broader view of health care: this can incorporate an integrated strategy covering primary, secondary and community care, and can take into account the wider range of elements contributing to overall health status.[21] Purchasers may also be in a stronger position to limit unnecessary care, although distinguishing between unnecessary and necessary care can be difficult in practice.

Beyond this, there is much that can be done to address the implications of practice variation by comparing the practice styles of doctors and hospitals. This can follow from increased information on treatments supplied, something that has often been resisted by the medical profession under the guise of patient confidentiality.

While, strictly speaking, volume controls and audits have existed all along,[22] the impetus provided by the reform process is resulting in their systemisation and more widespread use in a range of different institutional environments. In 1994, France began implementing a law concerning a set of some thirty references *médicales* opposable which set out "best practice" procedures and treatments for a range of illnesses and provides for sanctions in case of abuse. Similarly, in the United Kingdom, purchasers (District Health Commissions) are specifying not only the type of care to be purchased, but the procedures and techniques to be followed, and are beginning to check on hospitals with high levels of certain types of surgery. In Germany, the sickness funds have been required to audit 2 per cent of all medical bills per quarter since 1989. In the United States, insurers have been taking an increasingly active role in the process of patient diagnosis and treatment: by 1990, 80 per cent of conventional group insurance used case managers to monitor the treatment of high-cost or chronically ill patients, and approximately 45 per cent required pre-admission certificates and hospital review. The general consensus is

that such controls have constrained the volume of health care, but these savings have been partly offset by increased administrative costs. Overall, the congressional Budget Office (CBO) has estimated that these methods might reduce national health-care spending by only 1 per cent (CBO, 1992*b*). However, the scope for larger savings is suggested by the main French insurer (CNAMTS), which has found one-fifth of some components of medical care is clinically not justified and may even be against the best interests of the patient (Béraud, 1992; CNAMTS, 1992).

- *More competition and better pricing behaviour in the hospital sector*

The effectiveness of moving health insurers from simply a funding role towards a purchasing role would be enhanced if there were actual or potential competition between health providers. This argument applies whether health providers are publicly or privately owned.[23] The ability (or at least the threat) of health purchasers moving funding for some or all services is likely to provide a strong inducement for providers to seek improvements in quality, efficiency, cost control, and other elements which may be needed to win health funding. Such an approach is being used in the United Kingdom, where the funders are no longer restricted to purchasing from local public hospitals, and in Denmark and Sweden. where consumers now have free choice over the hospitals where they seek treatment.

Effective competition will, for most countries, reveal actual hospital oversupply. This has already been the case in the United Kingdom and in Sweden, where the over-supply of beds in core city areas and their implications in terms of costs have become clearer.[24] Despite this, decisions to close hospital beds are almost always difficult and politically sensitive, and result in local resistance wherever they are proposed. Thus, increased competition needs to be accompanied by rules of exit for loss-making hospitals, or arrangements to ensure a more balanced regional supply. A key consideration will be the need to do this in a way that sustains adequate competition among providers (OECD, 1994*b*).

Competition will also permit more realistic pricing practices to develop. Where providers have to compete for custom on the basis of price, there will be a greater incentive to cost individual procedures and to cut costs where possible. With prices closer in line with marginal costs, the distorting effects of current relative price structures (see the paragraph on efficiency problems in the hospital sector above) will be reduced and resource allocation improved. Competition may be difficult to sustain in rural areas where there may be only one hospital serving an area, Nonetheless, where competition exists elsewhere – for example, in major urban areas – the pricing and other contract arrangements can serve as a benchmark, Purchasers can then evaluate how health-care funds can be spent most effectively, while hospitals are subject to imposed incentives through purchaser-provider contracts. Recent experience in the United Kingdom suggests that, where there is

contestability even at the margins of health services, suppliers in an essentially monopolistic setting face pressure to seek improvements along the various service dimensions sought by funders (OECD, 1994*b*).

- Better contracting methods (the *role* of risk-sharing)

Competition is likely to imply the increased use of various contract-based approaches for hospital services. In contrast to bulk funding of all the outputs of a supplier, or to the passive reimbursement by insurers of bills submitted by providers, contracts provide the scope for competitive bidding for particular services sought by the purchasers and the transfer of resources to alternative providers. Contracts can also help to bring prices closer in line with costs in cases where the two have diverged over time or were inappropriate in the first place. Moreover, contracts provide a formal mechanism for performance indicators (such as quality, quantity and cost dimensions of services) to be specified and monitored. This is important, for example, where the funder wants to build a long-term relationship with particular providers.

The main features of methods used to pay hospitals and their implications (particularly for overall budget control and micro-efficiency), are set out in Box C. Under the widely-used system of block grants or bulk funding, the risks associated with the uncertain demands, intensity and costs of hospital treatments are borne by providers (and their clients) rather than by payers: for example, unexpectedly high resource use and costs in one area have to be offset by reductions in services elsewhere if overall spending is to be kept within budget. In contrast, fee-for-service systems place all the risks on funders, in the sense that providers are able to bill insurers for all the services needed to treat individual cases (and providers have an incentive to expand these services). Prospective, payment-by-case systems using Diagnostic Related Group (DRG) or similar approaches provide a means of sharing risks: the funder recognises and pays for differences in costs across a limited range of diagnostic categories, while the provider bears the risks of variations in treatment costs within these categories.

The choice of which contractual forms to use may best be left to health purchasers[25]: it may be the case that each purchaser would make use of a variety of approaches. With services for which competitive bidding and purchasing is used, the increasingly used DRG approach appears to have relatively favourable characteristics – giving purchasers some control over treatment intensity and costs, while encouraging suppliers to seek efficiency gains in the provision of treatment.

It may also be useful to explore mixed systems of paying for particular services.[26] These could involve. for example, a combination of a partial DRG-type payment and partial fee-for-service, or a DRG payment coupled with a stop-loss (*i.e.* with the balance of costs above a pre-set ceiling paid by the funder).[27] These

Box C. Hospital funding systems

With **block grants** [or global budgets), hospitals receive an annual budget to cover all their services (usually apart from major capital spending). During the 1980s, this approach became the main payment method used in many "integrated' health systems, where the government is the main provider as well as funder of health services. It is found, for example, in the United Kingdom (until recent reforms), Canada, Australia, Denmark, Finland [with some direct billing of municipalities), Ireland. New Zealand, Norway and Sweden, and is also commonly used in the public hospital sectors of other systems (*e.g.* France and Spain (social security hospitals)). In Denmark and Sweden, block grants are provided at the level of clinical departments in hospitals.

Block funding provides a direct means of containing hospital spending, provided enforcement mechanisms are adequate. However, this approach provides few incentives on producers to improve the efficiency of their operations, as funding is not contingent on the quantity and quality of output, and little information on relative prices of treatments is generated or used. Perverse incentives for efficiency may arise – for example, if funding levels are set according to historical costs, or if budget savings are clawed back by the funder.

Bed-day payments provide hospitals with a flat-rate fee per occupied bed. This approach was found mainly in systems with public funding and a mixture of public and private providers (*e.g.* Germany, France (private hospitals), Austria, Belgium and Spain (private and some public hospitals)). Overall hospital spending is capped, in effect, by total hospital capacity; however, suppliers face incentives to lower patient turnover and prolong lengths of stay so that the more expensive early days (when treatment usually occurs) are offset by lower-cost days later on during recuperation. As with block grants, funding decisions do not incorporate information on relative costs across treatment methods.

Fee-for-service methods pay hospitals according to individual services provided. These are the principal means of paying for hospital services in Japan, some cantons in Switzerland, and until very recently, the United States – *i.e.*, systems with mainly private providers and multiple insurers. Specialists are usually paid on a fee-for-service basis, particularly when working outside hospitals, but also for their services in public hospitals in some cases (*e.g.* Belgium).

Under this system, macro-control is weaker (requiring spending to be contained by other means), with suppliers facing incentives to raise the quantity, quality and prices of services provided. In the United States, this system may have contributed to competition between suppliers on the basis of higher quality rather than lower price, and excessive diffusion of expensive medical technologies (Weisbrod, 1991).

Payments-per-case set fees prospectively according to diagnosed medical conditions and standardised treatment costs. The best-known system is the Diagnostic Related Groups approach (DRGs) introduced into the U.S. Medicare pro-

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gramme in 1983. DRG-based systems have since spread to other parts of the U.S. medical system, and are being implemented or considered by other countries, including Germany, France, the United Kingdom, Canada, Australia, Austria, Belgium. Denmark, Finland, Ireland, Norway, Portugal. Spain, Sweden and Switzerland. These methods come closer than those above to being output-based payments, hence facilitating competitive contracting for treatments, and constraining suppliers' incentives to increase service volumes. They provide incentives on hospitals to increase turnover (*i.e.* reducing lengths of stay), but may lead to some "unbundling" of hospital services, and there is a risk that hospitals may, where possible, "bump" patients into more highly-remunerated diagnostic groups.

arrangements reduce the risk exposure of providers when faced with very high-cost patients. They may, as a result, increase the willingness and ability of health-care providers to bargain with purchasers, and may moderate the overall level of treatment prices that are negotiated.

Mixed payment methods may also be needed in areas such as emergency services, which may require more complex contracting approaches. The essential, but unpredictable, nature of emergency services is likely to mean that contracts for the supply of particular services cannot easily be specified in advance, and may also mean that funders need to bear some portion of risk to ensure that services are always available.

- Greater autonomy of hospital decision-making

At the provider level, competitive contracting for health services requires that providers improve their management capacity and face appropriate accountability arrangements (including relevant objectives and goals, and information systems which permit the measurement of their achievement). At the same time, greater management autonomy is necessary, particularly in countries where providers are public, if they are to be encouraged to seek and implement efficiency improvements. For example, individual institutions may need the scope to negotiate directly with their staff over pay and conditions, rather than being bound by centralised agreements.

Providers also need to recognise the cost of capital (including buildings and equipment) in their information systems and budgeting practices, to ensure that the full price of inputs is taken into account in production and purchasing decisions. Nevertheless, purchasers are likely to be closely involved in major capital

investment decisions by health providers – for example, through contractual commitments to purchase services made available by new technologies. In entering into such commitments, purchasers would need to take into account the scope for economies of scale, and overall capacity requirements, in their purchasing areas.

- Competing mini-integrated systems *(PPOs* and *HMOs)*

The role of the funder as purchasing agent becomes more difficult in a fragmented insurance market, and where there is greater freedom of consumer choice over health care. In these circumstances, insurers have generally been limited to paying bills presented by patients or health-care providers. However, recent developments have allowed insurers to take on a stronger purchasing role but, at the same time, have restricted consumer choice. Under preferred provider organisation arrangements (PPOs), the insurer contracts with suppliers at preferential rates. Patients can choose other providers but are obliged to cover the difference in cost.

Health Maintenance Organisations (HMOs) represent a somewhat different contractual response of health funders compared with the promotion of competition between providers, and is equivalent to having competing "mini-integrated" health-care systems (see Box B). Under HMO arrangements – which cover about 21 per cent of the population in the United States – the individual pays a flat-rate annual fee for all health care needed over the period. There are strong incentives in this case to minimise on unnecessary care (as well as incentives to under-provide care if there is not adequate competition among HMOs). Within HMOs, the funding division is likely to be linked to the provider divisions by various explicit (and also implicit) contractual arrangements which resemble those described earlier; as above, the funders are able through these means to set priorities, reallocate resources, and monitor the results of provider divisions, while also "internalising" some of the risks noted above associated with contracting in an uncertain health-care environment.

Most research suggests that HMOs have lower spending than fee-for-service insurance arrangements: the CBO has estimated, on this basis, that if the entire population of the United States were insured under HMO arrangements, then overall health spending might be reduced by 10 per cent (1 to 1½ per cent of **GDP**) and health outcomes would not suffer. However, there is evidence that health spending in HMOs grows at much the same pace as that under other institutional arrangements, suggesting that the benefits from such a shift are likely to be a once-and-for-all effect concentrated in hospital services (CBO, 1991 and 1992*a*).

Improving the agency role of ambulatory care doctors

The ambulatory sector, while generally smaller in terms of expenditure, is extremely important in controlling costs and increasing effectiveness. Normally, the

first contact with the health-care sector is with the primary doctor or nurse and they resolve a wide range of health difficulties. Indeed, in the United Kingdom, it is estimated that 90 per cent of health-care episodes start and finish with the primary care doctor. Where further care is needed, primary doctors are usually the patients' main agents for information and decisions regarding medical treatment; and they are often formal or informal gatekeepers for secondary services. Thus, the key objectives centre on ensuring a high "quality" of primary care and providing the proper incentives on doctors to act in the patients' true interest. These functions and objectives should therefore be recognised in the systems used to contract with doctors in general practice (GPs).

The principal payment methods used to fund GPs, and some of their advantages and disadvantages, are summarised in Box D. For example, under fee-for-service arrangements, doctors have a financial interest to over-service. In contrast, where doctors are remunerated on a wage and salary basis, they can reduce their effort at no financial cost and there is an incentive to "off-load" patients on to secondary providers (specialists or hospitals). Capitation systems fall in between. There is an incentive to attract patients and to provide adequate care under normal circumstances. However, they may still try to avoid accepting difficult patients or off-load high-cost patients on to secondary level carers.

Under fee-for-service systems, it is difficult to control overall costs. In most countries, some of the increases have been limited by holding down the contract price for care. However, evidence from France and Canada indicates that doctors have generally been able to compensate for lost income by increased volumes of service. Such problems are exacerbated in countries where there are rapid increases in the number of doctors. One approach used in Germany and a number of Canadian provinces, and being implemented in France, is to set a ceiling on overall ambulatory spending with mechanisms to reduce doctors' income if spending exceeds the targeted amount.[28]

As in the case of hospital contracts discussed above, there is growing interest in **mixed** systems of paying general practitioners. In Denmark, for example, GPs are paid in most counties on both a capitation basis (around one-quarter of income) and fee-for-setvice basis (around three-quarters) (Abel-Smith, 1992). As part of moves towards a family doctor system in Finland (*i.e.* away from a health centre approach), doctors' income is made up of a basic salary (60 per cent), capitation (20 per cent), fee-for-service (15 per cent), and local allowances (5 per cent) (OECD, 1994*c*). Mixed payment systems offer a means of reducing some of the potential difficulties noted in Box D that can arise under a capitation-based system. For example, the incentive for cream-skimming would be reduced if the risks of high-cost patients are shared with the central funding authority. Similarly, mixed systems moderate the tendency towards excessive treatments that occur under pure fee-for-service approaches.

Box D. Paying doctors in primary care

GPs are employed on **salaries** in Finland, Greece, Iceland, Norway (mixed salary and fees), Portugal, Spain (with some capitation), Sweden (some capitation), and Turkey – countries with integrated health systems. Salaries are generally negotiated centrally (*e.g.* between physicians' associations and the government), with individual-based adjustments sometimes included to allow for experience, location, and other reward and/or incentive considerations.

Salary arrangements allow funders to control primary care costs directly; however, they may lead to under-provision of services (to ease workloads), excessive referrals to secondary providers, and lack of attention to the preferences of patients.

Capitation payment systems provide GPs with a fixed payment, usually with adjustments for factors such as age and gender, for each patient on their "list". These systems are used in Italy (with some fees), the United Kingdom (with some fees and allowances for specific services), Austria (with fees for designated services), Denmark, Ireland (since 1989).the Netherlands (fee-for-service for privately insured patients and public employees) and Sweden (from 1994).

Capitation systems allow funders to control the overall level of primary health expenditures, and the allocation of funding between GPs is determined by patient registrations. There are risks under this approach of GPs registering too many patients and under-serving them, selecting the better risks, and referring-on too quickly patients who could have been treated by the GP directly. Moderating these risks, however, is freedom of consumer choice over doctors, coupled with the principle of "money following the patient".

Fee-for-service arrangements are used to pay GPs in the remaining OECD countries, and are even more widely used for specialists. Fee levels are either negotiated centrally (as in Japan, Germany, Canada, and Sector 1 in France) or set by the individual practitioner. Some countries (*e.g.* Australia and New Zealand) allow "extra billing" by GPs on top of standard patient reimbursement rates.

The fee-for-service approach gives physicians full discretion over the level and mix of services, referrals, and other treatment options. However, doctors face incentives to expand the volumes and prices of services they provide, including an increase in services provided "in-house" even if there would be advantages – *e.g.* through economies of scale – in making more use of secondary suppliers.

Transition from one contract approach to another may prove difficult. Capitation-type contracts, which are often combined with gatekeeper functions (see next sub-section), rely on well-qualified general practitioners (GPs) as the focus of health services outside the hospital system. The pattern of medical skills may not always be appropriate in all countries. For example, in the United States and France, specialists make up a large share of ambulatory doctors and there is competition between them and the GPs For patients. There is also concern that the skills of

certain GPs may not be adequate to the task, particularly where there have been no requirements or pressures for keeping up to date. Finally, in countries where the number of ambulatory care doctors relative to population is high, setting the level of the capitation fee may be difficult if cost control is to be maintained.[29]

- Role of primary level doctor as first contact with the system – gatekeeping

Family doctor arrangements can provide for better continuity in medical care while also acting as a barrier to moral hazard. In some countries – for example, France and Belgium – patients can see general practitioners or specialists virtually at will. This raises the risk of multiple visits for the same sickness episode, and may lead to excess care – particularly where there is an over-supply of doctors, strong competition between them for market share, and payment on a fee-for-service basis. The use of a family doctor as a gatekeeper (*i.e.* provider of a compulsory letter of referral for non-emergency access to secondary care or a specialist) reduces this risk and allows, in addition, a more coherent medical history to be established in the hands of one person. Some separation between contracting arrangements for ambulatory and hospital doctors may therefore be required.[30] Estimates reported in Gerdtham *et al.* (1994) suggest that countries with gatekeeper/referral systems tend to have lower overall health costs. To reduce the impact on consumer choice, some countries allow patients to seek second opinions, but with substantial cost-sharing;[31] or the insurance system has been set up to allow consumers the choice between either a gatekeeper arrangement but with no cost-sharing for primary visits, or free choice of the primary doctor with cost-sharing (Denmark).

The gatekeeper approach may not suit all countries, however. This method, and capitation systems more generally, give rise to concerns about under-provision of services to some or all patients, and cream-skimming or excessive referrals, by doctors to avoid potentially high-cost patients. These concerns may be eased if there is effective consumer choice over primary practitioner and/or a stop-loss provision. In any case, data do not suggest that countries with capitation systems exhibit higher acute hospital admission rates.

- Fundholding systems

In this context, the reforms adopted in the United Kingdom are of particular interest. Individual practices that choose to become fundholders are given budgets with which to provide primary services and purchase both pharmaceutical drugs and a range of secondary services. These practices therefore have an incentive to assess the efficiency and effectiveness of alternative treatment options, including surgery or office-based rather than hospital-based treatments, and have some degree of bargaining power to improve the health services supplied to their patients by secondary providers. There are indications in the United Kingdom that, in some

cases, fundholders have also been a catalyst for District Health Commissions (the regional purchasers of secondary services) to pursue a greater degree of competition amongst providers. The incentive on fundholders to be effective agents for consumers is enhanced by the greater professional satisfaction that results from increased bargaining power *vis-à-vis* specialist doctors as well as by certain pecuniary motives.[32]

Some specific issues

Better evaluation of new technologies

As noted in the first part, one of the elements placing upward pressure on medical costs over the past three decades has been technological change. Much technology has been accepted without appropriate evaluation and greater coherence is needed in this area. To ensure that technological change does not place unnecessary upward pressure on costs, purchasers can make clear that new technologies will be purchased only where there are clear therapeutic and/or cost advantages. In this context, governments need to ensure that appropriate tests of a cost-benefit nature are carried out. While part of the technology-related expenditure increases is associated with machines or drugs, new medical and surgical procedures in hospitals – which may prove more difficult to evaluate and control – probably constitute the largest cause of that growth. However, purchasers do have a better chance of imposing greater clarity in this area through the contracting process and by sponsoring studies and evaluations of alternatives where necessary. The problem here is that there may be reduced incentives to undertake research on a commercial basis, posing the question as to whether there is a role for government in steering research efforts and absorbing a greater part of research costs than it already does.

Better control of the supply of doctors and hospital beds

The increasing supply of doctors, along with a significant rise in hospital beds, seems to have been one factor (of many) affecting the increase in expenditure. Over-supply has been apparent in hospital beds for some time. Competition among hospitals makes such over-supply more apparent, but it does not necessarily lead to market exit if the costs of excess capacity can be passed on into prices (as appears to be the case in some countries, notably in the United States). As noted in the section above, closing beds and hospitals, even if vindicated on cost grounds, has to contend with serious political difficulties.

Over-supply of doctors is also occurring in some countries. An increased number of doctors does not appear to have reduced overall expenditure through increased price competition. Indeed, it has been argued (Evans and Stoddart, 1990) that supply growth has simply increased the scope for further medicalisation of a

progressively wider range of phenomena with smaller and smaller effects on health outcomes. This argues in favour of restrictions on access to medical education, or at least clear signals that those undertaking the study of medicine are not assured of receiving contracts from health-care purchasers on graduation.

Dealing with ageing populations

As populations age, the types of health care demanded will change. Improvements in surgical and anaesthetic methods will reduce the need for acute-care beds, while there will be an increasing demand for long-term care for many older persons (OECD, 1994*a*). Countries have taken very different approaches to the care of frail elderly people: historically, some countries, such as Canada and Sweden, put greater emphasis on institutional care, while others, such as the United Kingdom and Denmark, sought to put greater emphasis on home-care arrangements or intermediate housing arrangements which are less costly. All OECD countries are now seeking a better balance between different forms of care, coupled with greater differentiation between the requirements of the very disabled elderly and those who need only some care. Policy-making in this area has been complicated in many countries by the fact that hospital and community care is organised and financed at different levels of government (health at the central, provincial or county level and social support at the municipal level). This fragmentation has led to some cost-shifting – e.g. keeping those in need of low-intensity, long-term care in high-cost hospital beds. Such problems can be eased by appropriate incentives: for example, in Denmark and progressively in Sweden, municipalities have been made financially responsible for the costs of keeping older patients no longer needing acute care in hospital, producing strong incentives to find cheaper alternatives.

Pharmaceuticals

The pharmaceutical sector presents some unique issues and problems when improvements in efficiency and overall control of spending are sought. Nevertheless, some of the approaches to reform suggested for the hospital and primary health sectors may also be suitable for pharmaceutical spending.

A core concern is how to strike a balance between providing pharmaceutical companies with adequate incentives to undertake research and development in an inherently costly and uncertain environment; and handling the monopolistic situation that is created when successful drugs under patent protection are introduced. In this situation, macro-control may be difficult to ensure without the use either of regulatory controls (such as the widespread controls on drug prices or company profit levels currently used in OECD countries); or of strong – probably monopsonistic – buying power. The latter may be relatively straightforward to introduce in systems with single purchasing agents for health services, or with co-ordination

between multiple purchasers. In Australia, for example, centralised negotiations between the Commonwealth government and pharmaceutical companies over drug prices and the listing of new products appears to have contributed to significant price restraint.

More broadly, there are various means of increasing the incentives for doctors and patients to make better choices regarding pharmaceutical spending – in particular, choices which improve spending control and efficiency, while not adversely affecting health outcomes. Most countries have some degree of consumer cost-sharing of prescription charges to improve demand-side spending restraint, and several base reimbursement rates from health funders on the prices of lower-cost generic substitutes where these are available. Removing the financial return to doctors from selling drugs (as occurs in Japan) would reduce their incentive to over-prescribe.

Large inter-country variations in prescription practices remain, suggesting that much prescribing behaviour lacks rigorous evaluation (OECD, 1993*c*). Several countries (*e.g.* France, the United Kingdom and New Zealand) have introduced practice reviews whereby doctors are informed how their prescribing record compares with that of other practices, and similar systems to encourage more rational prescribing are making headway elsewhere. This approach, combined with effective enforcement mechanisms, can identify and restrain outliers, and encourage greater standardisation in prescribing habits. Under fundholding and other capitation approaches to paying doctors, drug spending can be included (on a prospective basis) in the capitation payment – as occurs in the United Kingdom. This approach provides a means of controlling pharmaceutical spending in ambulatory care, and gives doctors an incentive to prescribe prudently. In the United Kingdom, for example, there is evidence that prescription cost increases are significantly lower for fundholding compared with non-fundholding GPs (OECD, 1994*b*).

Overall costs of dispensing drugs could also be reduced by selective deregulation of the retail segment of the market. Certain European countries highly regulate this market: retail price maintenance is often enforced, competition between pharmacies is limited (no advertising of prescription drug prices), competition is also often limited between pharmacies and other retail outlets for over-the-counter drugs (*e.g.* aspirin and vitamins), and there are restrictions on the number of pharmacies in a particular area. This has led to significant differences in the number of pharmacies between countries, and to large variations in the number of pharmacists per capita.[33]

Ensuring better accountability of purchasers

As noted earlier, there are advantages in having a single purchaser responsible for the health needs of its local population. However, single-purchaser systems may

Box E. Insurance market competition

Perhaps the most difficult issue in health-sector reform is whether introducing (or increasing) competition between health insurers would help to control overall costs of health care, increase the efficiency of providers, and maintain equity of access. Recent reforms in the Netherlands and Germany have included increasing competition between sickness funds; New Zealand considered – but, as with the Netherlands, has subsequently put on hold – a proposal allowing individuals to opt out of the public insurance system and take their funding voucher to the private insurer of their choice. Only Portugal is proposing to implement a similar opt-out clause. Meanwhile, much of the debate surrounding United States health reforms has focused on the relative merits of maintaining competitive, but more heavily regulated, private insurers, or moving more towards a single-payer approach.

How to combine insurance market competition with equity of access is a major question these reforms have to deal with. As noted in Part II, key dimensions of equity to which almost all countries subscribe are that all individuals should have access to insurance coverage, and the premium should be based on income rather than personal risk. As regards coverage, one approach is for insurers to all offer a basic health-care package and accept all comers; cream skimming (*i.e.* refusing those with higher health risks) would be illegal. The problem of combining competition and income-related premiums would be overcome by risk adjustment between funds – *i.e.* those with higher risks receiving a cross-subsidy from funds with lower risks – although the mechanism differs across countries. In the Netherlands, this is to be achieved through a central fund which would pool income related insurance premiums. Each insurer would receive a risk adjusted lump-sum to allow for the expected differences in health spending of its members. Insurers could then make a profit by bargaining for lower prices for services from health providers and minimising their own administrative costs. The pressure on insurers to search for lower costs is encouraged in these proposals by greater price competition between insurers for clients.

There are, however, a number of uncertainties and potential difficulties with this approach.

Risk adjustment

Risk adjustment is not straightforward. In the initial Dutch proposals, risk adjustment was to be based on age, sex and region, factors which, according to some studies, would explain less than 5 per cent of annual health-care cost variability (Newhouse et *al.*, 1989; Van de Ven and van Vliet. 1992). Adding health status, prior health-care use and some background variables would increase this to around 10 per cent. Moreover, the information may not be available for all of these variables and may be costly to collect. Even if insurers have to accept all applicants, they nevertheless face strong incentives to attract and retain the better risks and may find ways of doing so – for example, through their marketing and promotion activities, and through selective contracting with providers (*e.g.* according to their

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locations and reputations in particular specialities) in order to "attract the healthy and repel the sick' (Van de Ven and van Vliet. 1992). On the other hand, if there is no risk to the insurer – either because the state bails out failing insurers (*e.g.* on the basis that these insurers have been "unlucky" in receiving an unexpectedly poor risk pool), or pays the full cost of medical care ex *post* (as in Belgium) – then the pressures to lower the costs of health care will be eliminated. An appropriate balance of risk between a central fund and the individual insurer must be found if the market is to be sustained.

Administrative costs

Competition between insurers could help contain administrative costs, even if all or most health-care costs were covered by a central fund (as in the Dutch proposals). Against this, however, systems with a large number of insurers, a diversity of insurance plans, and a complex network of contracts with providers are likely to be more expensive than systems with single payers and a single set of reimbursement rates. For example, lower administrative costs in the United Kingdom and Canada have been attributed to single-payer arrangements, and a similar result holds in Japan, where payments and control are consolidated' in the Social Insurance Medical Reimbursement Fund. As a result, multiple insurance systems would need to realise substantial cost savings elsewhere – particularly through production efficiency – to offset the higher administrative elements.

Equity

In cases where insurers compete over a flat-rate fee component of the premium, the share of this fee in the overall premium has to be sufficiently high to encourage consumers to "shop around". However, too high a fee would erode the progressive nature of health-care financing. This concern has been presented as the reason for lowering the flat-rate portion in the proposed Netherlands reforms from 15 per cent as originally proposed to 5 per cent at present.

Cost control

Increased insurance market competition may not lead to overall reductions in costs. Where premia can be set freely, premia may in the end be bid up rather than down. This may occur if there is a large enough share of the population convinced that the level of spending is inadequate, or if producers are able to resist insurers' attempts to improve efficiency and supplier-induced demand effects are strong. For example, collusive behaviour on the part of providers may have contributed to problems of cost control in the Netherlands, where the insurance market is highly fragmented. Insurers may compete to provide more selective overall care (access to the best specialists, etc.) driving up the prices where supply is inelastic. This, in turn, could have implications for equity of access. Recent experience in private

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markets indicates a propensity for rising premia (for example, private insurance in the United Kingdom and Finland).

Health outcomes

Finally, competition amongst private insurers may create risks of a continued emphasis on health care rather than health outcomes. The current focus of health systems is on curative care rather than prevention. There will be little incentive to shift towards preventive care unless the insurer faces a high probability of realising savings through lower health-care costs later on. Competition within an HMO-type setting, where there is a common interest in preventive care, could help in this regard, as could long-term contracting between consumers and insurers – provided competitive pressures arising from free consumer choice between insurers are maintained.

A more limited approach

While doubt has been cast above on the merits of a fully competitive insurance system, there may be fewer concerns about having optional, competitively-provided insurance on the margins of predominantly single-payer systems. Such plans could, for example, cover benefits specifically excluded from public schemes (*e.g.* dental care, eye-glasses and lenses, cosmetic surgery or other procedures), or fund higher quality accommodation (*e.g.* single rooms). The form and price of coverage would be left to the market to decide, and premia based on individual or small-group risk may be the norm.

Such schemes should, however, be barred from covering patient part-charges. to prevent the effects of these in restraining health demand from being weakened. Competitive schemes may also have to'be prevented from covering major health risks, if a single-payer approach is judged to be the best way to hold down costs and maintain equity of access. This restriction need not be onerous: if the efficiency of provision of health services can be improved through the sorts of measures outlined in Part II, this would substantially reduce the pressures that have produced recent growth in competitive private arrangements for funding and delivering health services.

be felt to reduce consumer choice, hence weakening their accountability to the population covered. In view of such concerns, there may be a preference for sub-national (regional or local) purchasers, with policy emphasis on making systematic comparisons of treatment approaches and results across regions. In cases where there are already multiple, but largely non-competing, funders (*e.g.* sickness funds in Japan and Germany), their effectiveness as purchasers may be enhanced by

encouraging coalitions or mergers between small sub-units that serve the same region.[34]

There may also be some pressure to introduce competition between purchasers, and a number of reform proposals have gone in this direction (*e.g.* Japan and Germany). In principle, the right of the individuals to change purchasers would increase pressures on the latter to provide an appropriate package of health-care services. Consumer choice may also increase the pressure on purchasers to improve administration (particularly where competition is based on the insurance premium) and to search for more cost-effective care from providers. However, setting up and sustaining such competition is not easy in systems where the insurance premium is based on income rather than risk, as it requires some form of risk adjustment across funds. Furthermore, there is no assurance that increased competition among insurers will necessarily lead to lower health expenditures. These issues are dealt with in greater detail in Box E.

"Cost-sharing"

The discussion above suggests that improved incentives for and monitoring of health-care providers can help reduce unnecessary health spending. In addition, most OECD countries have sought to counter the moral hazard effects arising from extensive insurance coverage by increasing patients' out-of-pocket share of a range of health expenses. As increases in cost-sharing could imply a sizeable proportionate rise in the "price" paid by patients, the effect on demand could be substantial even with relatively small price elasticities of demand for health services.[35]

However, there is little evidence (apart from pharmaceuticals) that those countries with higher cost-sharing have lower health expenditure or have increased spending more slowly (see, for example, Oxley and MacFarlan *op. cit.*). While increased cost-sharing in public schemes may reduce the cost to government and possibly lower the volume of health services, total health spending may not necessarily fall. There are several reasons for this. In practice, increases in cost-sharing have often been small and intermittent – hence, insufficient to affect the behaviour of health consumers. Private insurance (such as Medi-gap cover in the United States and the *assurances complementaires* in France) may pick up much of the increased patient charges levied by public schemes. Even if cost sharing contributes to slower growth in the volume of health care, this may be partly offset by increases in health prices (as appears to have occurred in the United States in the early 1980s). Finally, the scope for expenditure savings may be reduced by the administrative costs of implementing cost-sharing schemes.

Equity concerns arise from the potential regressive impact of cost-sharing. Moreover, health status appears to be strongly correlated with income (Evans *et al.*, 1993) and so patient charges risk transferring income from the sick and less well-off

to the healthy and better-off. As a result, most countries with cost-sharing attempt to protect lower-income groups and the chronically sick through exemptions, payment ceilings, and similar provisions – albeit at the cost of increased administrative complexity, less transparency in pricing, and increased risk of fraud.

Arguments for higher cost-sharing are at times based on the assumption that low health prices encourage demands of a secondary nature. In this context, the RAND Study in the United States suggests that user charges were as likely to reduce contacts with health-care providers which clinicians would regard as "needed", as those which were judged "un-needed' (Lohr et al., 1986; Siu et al., 1986), although with little apparent effect on health outcomes.

More broadly, user charges should be lower where the risk of moral hazard is less, where the impact on demand is the weakest, and where the welfare gains from insurance are greatest. This suggests that cost-sharing, insofar as it is implemented, should be lower for acute-care hospital services (except possibly for private rooms, better meals and other "care" as opposed to "cure" aspects of the stay); and higher for ambulatory services, pharmaceuticals [particularly for non-chronic cases), routine dental care, and eye-glasses. Charges (and exemptions) can also be used for more specific goals: for example, fees can be imposed for the non-emergency use of costly emergency services at hospitals; some dental treatments can be reimbursed at a higher rate for individuals who have had regular check-ups (as in the Netherlands); and family allowances can be conditional on parents taking their children to a paediatrician for check-ups (as in France).

SUMMARY AND CONCLUSIONS

Rising health expenditure and steps toward reform

Problems specific to the health-care "market" and the institutional responses to them have created an environment conducive to increases in spending. Since the marginal cost to the patient is low and virtually all decisions of the health-care providers are financed by the insurance funds, there is every incentive to extend care where it is judged to have some positive marginal benefit for the patient; moreover, in the light of societal values and the Hippocratic approach to medicine espoused by doctors and by society more generally, it has been ethically correct to do so. Such effects on health spending have been magnified by several influences. These include: the growing use of sophisticated technology, with little analysis of whether the net benefit of a given technique is sufficient to warrant the expenditure on it; more doctors who are increasingly trained to use these high-cost methods; and rising hospital capacity. At the same time, there has been little incentive to develop or introduce cost-reducing technologies.

In this environment, where payers (who are for the most part the insurers) are largely absent from the medical decision and where market forces are unlikely to be

able to play much of a role in sorting out the most appropriate medical strategy even in the best of circumstances, incentives to brake unwarranted increases in health spending have been few. In the United States, where private sector insurance takes up a large share of the market and where the potential for competition should be large, spending increases have been much higher than elsewhere and been channelled back on to higher insurance premia, despite increased concern about the cost to firms and to family budgets.

Even though the comparability of health data is at times questionable, the size of inter-country variation in health costs and patterns of resource use suggests that there is considerable scope for increased efficiency in many countries. Indeed, one of the underlying themes of analysis presented here is that it may be possible, by focusing on the **way** health care is delivered, to provide the same amount of health care but more efficiently. Furthermore, a better quality of health care could follow from stronger efforts to define and implement "best practice" medicine. The very weak association between overall health-care spending and available indicators of health outcomes raises two additional issues. First, health-care spending at the margin may have only limited effects on overall health status. Second, since health outcomes are dominated by a range of additional factors besides health care, government may be able to achieve health goals more effectively via other channels.

An overview of major reforms in the area of health-care financing and provision was presented in the second part. Notwithstanding important features of convergence across the spectrum of reforms, OECD countries have not all followed the same path or chosen the same instruments. Initial efforts to control expenditure through budgetary caps appear to have had some success to the degree that health-care spending, and particularly the public component, grew more slowly in most countries during the 1980s. However, these measures have often been limited to the hospital sector and pressures have spilled over into less-controlled areas. Some types of measures may, in addition, have reduced the efficiency of provision. A major concern is whether this slower growth in spending can be sustained.

The focus is now shifting towards improving micro-efficiency in health care. Most countries have introduced partial measures aimed at attenuating the most egregious problems and a few are now aiming at more wide-ranging reforms to improve efficiency and effectiveness, while at the same time trying to minimise any adverse effects on equity. The assessment of reforms – both implemented and proposed – suggests that a key to improving efficiency – at least in the hospital sector – lies in improving incentives through a better market structure and contract relations between payers (insurers) and providers. The following main elements are likely to be involved:

- Payers taking on the role of purchasers, acting as the patients' agent in ensuring availability of high-quality, cost-effective health care. It has been suggested that single purchasers by area may have some advantages.

- Competitive – or more likely contestable – markets for health-care provision with contracts which contain incentives for providers to improve efficiency.
- Greater independence of hospital management (along with appropriate accountability arrangements) in many countries to encourage the search for both efficiency gains and lower-cost options for care.
- Contract monitoring by the purchasers to place ongoing pressure on health-care providers to improve the quantity and the quality of care while reducing costs.

These changes will often increase the costs of administering the system. Hospital management systems are in their infancy in most countries, as reflected in inadequate information for decision making. For such investments in reform to pay their way, there must be sustained pressure to ensure that providers respond.

Similar principles can be used in the ambulatory sector in designing more appropriate payment arrangements for primary care doctors. Each of the alternative contractual forms has its advantages and disadvantages, but there is some evidence to support the view that capitation payments, combined with a gatekeeping role for family doctors, may be the least costly. It can be argued that, where generalists are of a high quality, this approach may even lead to better – or, at the very least, more coherent – care. These incentives can be enhanced by systems such as fundholding. However, free choice of generalist, open enrolment, and a stop-loss provision may be necessary to limit risks of under-treatment and cream-skimming.

The approaches sketched here, which draw on experiments and developments already under way, raise an important question: how can the health purchaser be made accountable to the patients? Having competing insurers is one approach, and some countries are moving in this direction on the grounds that this system may also provide insurers with an incentive for placing pressure on providers to reduce costs and be responsive to patient needs. However, maintaining a competitive insurance market with income-related premia requires complex systems of risk adjustment between purchasers. This suggests that there may be some trade-off compared with single-purchaser systems regarding regulatory complexity, administrative costs, and market power *vis-à-vis* the providers. Various responses can be found to these difficulties: for example, collaboration exists between insurers in Germany to increase their bargaining strength with hospitals but at a cost to competition between funds; and, in the United States, Health Maintenance and Preferred Provider Organisations offer a lower insurance premium in return for reduced consumer choice over providers.

While inconclusively supported by international cross-section data, it seems nonetheless plausible that a significant and across-the-board increase in cost-sharing can have an important effect on demand for health care. As such increases can have undesirable effects on access of lower-income groups, most countries

have limited cost-sharing to ambulatory and pharmaceutical care, or have excluded the very sick who are often the group consuming the bulk of health-care services, This increases the administrative complexity and cost of such systems and reduces transparency to the general public. In these circumstances, action on the provider side may be an alternative avenue to achieve the same outcome – for example, using doctors as gatekeepers for the bulk of secondary care, coupled with purchaser oversight via an evaluation of practice patterns.

From health-care policy to health policy

The demand for health care is a derived demand arising from the demand for good health. An accumulating body of information suggests that health is affected by a wide range of factors, including the genetic endowment of each individual and the social and physical environment. Health care, while providing the necessary infrastructure when individuals do fall ill, is not the only influence in improving health outcomes. One criticism has been that attention and funding has been concentrated on the health-care sector, allowing the broader factors affecting health to be neglected.

In the light of this, most countries have adopted World Health Organisation, "Health for All" policies aimed, in principle, at bridging this gap. But the implications have rarely been followed through into concrete actions. More recently, a few countries have established more wide-ranging policies about health, aimed at *a)* setting measurable goals regarding health outcomes (*e.g.* reduced heart disease *or* cancer); *b)* better co-ordination both between health-care providers at different levels (primary vs. secondary), and between funders (municipalities and central levels); and *c)* searching for alternative ways of reaching health goals with an emphasis on prevention. The approach has been progressive, with initial emphasis on establishing what seem to be reasonable goals for intermediate indicators (for example, in Ireland goals have been set for lower blood pressure and cholesterol, reduced smoking and alcohol consumption, reduced road accidents, etc.). Health-care policy can be integrated into this broader frame, where purchasers include these goals in their purchasing policies (as do District Health Commissions in the United Kingdom).

As a result, purchasers are required to examine other policy instruments for achieving health goals, comparing the costs of these with further increases in "mainstream" health-care spending. In this regard, they face an important drawback – lack of information on the cost of alternative policies or their impact on health outcomes. Information on these matters is important, as there is no assurance that alternative policies will prove more cost effective: for example, prevention is not costless – and often produces medical risks as well (*e.g.* vaccination) (Russell, 1986).But, purchasers do have a clear mandate to address these uncertainties and

examine the trade-offs. This approach contrasts with the past Fragmentation of health policy: prevention, for example, has been a separate responsibility (often in the hands of health ministries), poorly integrated and, some would argue, underfunded.

In summary. this analysis – like many recent policy briefs – has argued for a comprehensive approach to health provision. The key feature is a more consistent approach, in which purchasers are responsible for improving the overall health status of their populations. Through their purchasing decisions, and through more effective involvement in broader policy issues (such as education, housing and social policy), they can have greater influence on how resources are distributed between the traditional health-care sector. prevention activities, community-based care, and the range of other areas that can influence the enhancement of health outcomes.

NOTES

1. Mexico is not included in this analysis.

2. Data in Table 1 use GDP as the denominator to permit a longer time period to be examined. A comparison of data in Table 1 (where the denominator is GDP) and Table 2 (which uses trend GDP) suggests that cyclical movements in the denominator "explain" 0.3 percentage points of the 0.5 percentage point increase between 1990 and 1992 in Table 1 for the OECD average. Notwithstanding the recession, medical consumption in a few countries, chiefly the United States and Switzerland, grew at a brisk pace in the early 1990s.

3. Only limited data were available for Turkey. More generally, uncertainty remains regarding the comparability of these data across countries.

4. These data should be interpreted with caution. Comparisons of health PPPs for 1980 and 1985 with those for 1990 do not always show consistent patterns across countries. For a number of European countries (those covered by Eurostat), the weights employed for calculating the public consumption component of health care PPPs have been approximated by the Secretariat using average weights for the remaining countries.

5. Micro-efficiency has two aspects: **productive efficiency** associated with producing a fixed set of services at minimum cost; and **effectiveness,** defined as maximising services provided for a fixed set of inputs or maximising the impact on health goals, defined as the length and quality of life. Costs ought to include administrative expenses.

6. These could include, for example, housing, education, income maintenance, nutrition and hygiene programmes, all of which could influence the population's health.

7. For example, weak sanctions on health providers in Italy in the 1980s forced the government to regularly inject new funds into the health system.

8. In both Canada and Australia, where a large part of the funds are provided by federal governments, some rigour was imposed by changing the transfer to the provincial/state governments to a block grant indexed to GDP (Canada), making the lower levels of government responsible for cost over-runs. In Finland, a large share of spending at the local level was paid for by the central government, encouraging an increase in supply (OECD, 1989), but this has been replaced by block grants. In Sweden, where the regions finance the bulk of spending through local taxes, there had been little capacity for overall control until Parliament voted in 1990 to limit tax rates at the county level of government through 1992 (extended to 1993).

9. For example, in Germany the "Concerted Action", which brings together stakeholders in the health-care system, acts as a forum for resolving differences. While the conference recommendations are not binding, they have considerable influence on outcomes. Regional sickness funds then negotiate budget caps with the providers. For Japan the Ministry of Health and Welfare has maintained an objective of keeping the growth in health costs in line with the growth of national income.

10. A similar system for office-based specialists was proposed for the Netherlands but not implemented because of lack of co-operation in collecting the necessary information to make it operational.

11. Such lists determine which pharmaceutical products are to be sold or, at least, which can be reimbursed by insurers.

12. This has resulted in budget ceilings being set for private hospitals in France from 1990.

13. An example of the difficulty in balancing spending control and micro-efficiency against consumer preferences for physical access is found in the area of emergency services. Even where there are adequate urban transport arrangements, local populations resist their closure. This has led to an excess in the number of hospitals. As an illustration, in the Ile-de-France (greater Paris), a catchment area of 12 million people, there are some 110 services of this kind whereas expert opinion evaluates the need at around 35.

14. In some countries, budget ceilings did reduce the supply of beds, thereby reducing overall costs. However, because these reductions were often unselective, they reduced overall costs but did not necessarily improve the efficiency with which the remaining resources were employed.

15. The scope for gains is well-illustrated in a hospital in Stockholm, where a reorganisation of services permitted, in 1992, increases of 70 per cent in cataract operations, 50 per cent in coronary bypass, 42 per cent in ambulatory surgery and 8 per cent in conventional surgery without a budget increase.

16. Studies of health manpower regulation in the United States suggest that just two restrictions – on the number of auxiliaries a dentist can hire and the functions a dental auxiliary may perform – cost consumers an extra $700 million in 1982. The quiltwork of restrictions across 45 medical specialities could increase this figure by many times (Begun and Feldman, 1990).

17. For example, in France where considerable efforts have been made to increase management capacity, collusion between doctors and managers has, on many occasions, led to an emphasis on prestigious and expensive services to maximise the income and reputation of the hospitals (OECD, 1993b).

18. The last major revision of the French medical nomenclature and associated price structure was in 1972, despite the fact that technological change has had a major but unequal impact on costs. The use of endoscopy in intestinal medicine in France provides a case in point of the effects of inappropriate price structures. As the new procedure became more widely employed and the cost of equipment fell, the unit costs per examination declined relative to the price of the examination paid by the insurer. Increasing profits from the use of endoscopy examinations has progressively pushed out cheaper procedures such as X-ray imaging, even though the additional information obtained is margi-

nal. Such problems can be accentuated where doctors "self-prescribe". For example, in the United States, ecographies were prescribed four times more frequently by doctors with equipment than those who sent patients to a radiologist (see Commissariat Général du Plan, **1993** and sources cited therein).

19. Reforms along the lines of those outlined below have been introduced in the United Kingdom, the Netherlands, New Zealand, Norway and Sweden, and are being considered in Germany, France, Belgium, Denmark, Finland, Ireland, Sweden and Spain.

20. Contestability refers to the competitive pressures created by the potential entry of other market participants (*cf.* Baumol, 1982); yardstick competition involves comparisons of performance with other producers who are not directly competing in the same market area.

21. For example, District Health Commissions in the United Kingdom can now provide an additional "voice" in calls for improved housing, accident prevention, road safety, etc.

22. Many social security funds require prior agreement before they agree to cover certain procedures and in some cases have demanded doctors in their employ to examine the patient. However, the effectiveness of this on practice patterns or over-spending has been weak.

23. As discussed in OECD (1993*a*), an important source of efficiency gains arises with competitive arrangements allowing public-sector suppliers to compete with each other and with private-sector suppliers. The fact that most private suppliers are of a non-profit nature also weakens this distinction between private and public providers.

24. The over-supply of beds in central London has been recognised since the last century. However, the impact of the internal market in the United Kingdom has made this clear and increased pressure for rationalisation.

25. For example, regional health purchasers in New Zealand, and to an increasing degree the DHCs in the United Kingdom, now have discretion over how (and with whom) they contract.

26. Mixed systems of paying for hospital and/or doctor services are proposed by Diamond (1992), Ellis and McGuire **(1986, 1990** and **1993)** and Newhouse (1992).

27. This stop-loss approach has been introduced in payment arrangements under the US Medicare programme.

28. For example, a reduction may be pro-rated on the basis of the medical activity of each doctor. Such systems can, however, penalise efficient/effective doctors.

29. In the United Kingdom, where the doctor-to-population ratio is low, the capitation fee is set to bring the income of the "average doctor" (with 2 000 patients) up to levels which are in line with professionals with similar education and skill levels. Thus, setting the fee entails agreeing on the expected average income and the number of patients which the "average doctor" can be expected to attract. In countries where the ratio of doctors to population is high, doctors may feel particularly uncertain about their future income (and hence the capitation payment). Doctors, to be willing to risk the change, may demand that the income of the "average doctor" be set high enough to reduce the risks in the

shift from one system to another. Recent reform proposals in Sweden have been blocked because of such difficulties.

30. For example, in the United States, doctors with admitting rights can continue to treat their patients in hospital, so that they may have an incentive to send patients on to secondary care.

31. In the case of potentially high-cost treatments, however, there may be a case for encouraging doctors and patients to seek second opinions.

32. These issues are discussed in more detail in OECD (1994*b*). One problem, however, with doctors' office-based treatments is the incentive for supplier-induced demand in marginal cases. Practice evaluations combined with appropriate pricing (to ensure that prices are in line with marginal costs of providers) may need to be introduced at the same time to limit this risk.

33. In the mid-1980s, the number of practising pharmacists per capita averaged 0.4 per 1 000 persons for OECD countries, but varied from 1.4 in the Netherlands, 2.1 in Denmark and 3.1 in Ireland to 13.7 in Finland, 11.2 in Belgium, 9.6 in Portugal and 8.6 in France.

34. Indeed, this appears to be the trend in the Netherlands where cartels of funders and hospitals have been constructed. However, unless there is appropriate accountability to some higher authority through established rules of behaviour and targets/goals, this may not have the desired effect on increasing system efficiency and effectiveness.

35. After an extensive review of the U.S. literature, Morrisey (1992) recently concluded that the price elasticity for health services is around -0.2. However, a great deal of uncertainty surrounds this estimate and its applicability to other countries, and it should therefore be viewed very cautiously.

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