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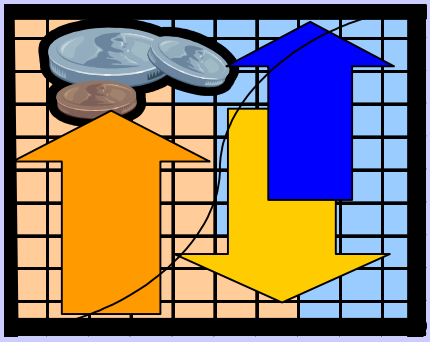
EIP/FER/DP.04.4



Tax-Based Financing for Health Systems:

Options and Experiences

DISCUSSION PAPER
NUMBER 4 - 2004

Department "Health System Financing, Expenditure and Resource Allocation" (FER)
Cluster "Evidence and Information for Policy" (EIP)

World Health Organization 2004

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Tax-Based Financing for Health Systems:

Options and Experiences

by

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WORLD HEALTH ORGANIZATION
GENEVA
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I. Introduction

Out-of-pocket spending is the most frequent way to pay for health services around the world. However, as a share of the total value of global health spending, it is eclipsed by social insurance, private insurance and general taxation. These latter forms of payment provide better financial protection for households because they are "prepaid" and pool health risks across individuals. Of these prepaid financing mechanisms, general government revenues are the most widespread, providing substantial funding for health services in almost every country. In fact, government revenues are the predominant source for health care expenditures in 106 out of 191 WHO member countries.[1]

Paying for health services out of government tax revenues is a fairly recent innovation in health care financing. Until the mid-twentieth century, the major alternatives to out-of-pocket payments for health care services were private philanthropies, mutual associations or social insurance plans (e.g. sickness funds). Local governments generally contributed funds to maintain or invest in hospital and indigent care, but this did not represent a coherent national strategy for health care funding until well into the 20th century. By contrast, Germany's policy to combine its sickness funds into a social health insurance system -- generally credited as the first effort to enact universal health insurance coverage -- dates from the second half of the 19th century.

Health financing systems in which government revenues are the predominant source for health care expenditures (hereafter referred to as "Tax-Based Systems") began in two different ways. In the first set of countries, the Tax-Based System was built on a foundation provided by the earlier development of social or private health insurance. For example, Britain passed its National Insurance Act in 1911, financed through payroll contributions, and didn't adopt a universal tax-supported health system until after World War II. This pattern is common among Western European countries. In the second set of countries, the Tax-Based System evolved from health services administered directly by colonial regimes. This pattern is found mainly among developing countries that were colonized or heavily influenced by Britain -- such as Malaysia, Singapore, Hong Kong, and many countries in Africa and the Caribbean.

Regardless of the starting point, Tax-Based Systems share common advantages and disadvantages. Since payment is mandatory, the system avoids many problems that are common to voluntary insurance markets. Tax-Based Systems can benefit from scale economies in administration, risk management, and purchasing power. These strengths come from the collective and political nature of raising and allocating tax revenues in a modern nation-state. Nevertheless, the weaknesses of such systems emerge from this same political-economic feature; namely, inefficiencies that emerge from serving multiple objectives, political pressures to serve privileged groups, the normal challenges

[1] For the purposes of this paper, countries are defined as having predominant funding from government revenues if these revenues account for more than half of government health spending *and* government health spending represents more than half of all health spending.

of effective management in public services, and problems associated with weak accountability and instability (Inter-American Development Bank 1996); (World Bank 2004); (N. Birdsall, R. Hecht 1997).

This paper discusses the use of tax revenues as the predominant source of health care financing. It defines "Tax-Based Systems" as those in which more than half of public expenditure is financed through revenues other than earmarked payroll taxes (i.e. to distinguish it from social security or social health insurance), and in which access to publicly-financed services is, at least formally, open to all citizens. Consequently, this paper complements a series of studies produced by WHO on other forms of health care financing, including social insurance (G. Carrin, C. James 2003), private health insurance (N. Sekhri, W. D. Savedoff 2003), community health insurance (G. Carrin 2002) and user fees (A. Singh 2003).

The following section presents an overview of the main forms of taxation that fall within this rubric, along with advantages and disadvantages. It then discusses the main issues involved in management and use of tax revenues for health care services. It proceeds to illustrate these issues through the experience of several countries with general tax-based health systems. The paper then concludes with the main messages distilled from this review.

II. The Theory and Practice of Taxation

Tax revenues have many advantages for financing universal health coverage. One of the foremost advantages is that it effectively pools health risks across a large contributing population. In such systems, individuals contribute to the provision of health services through taxes on income, purchases, property, capital gains, and a variety of other items and activities. In contrast to systems that rely on affiliation to an insurer (whether public or private), this system mobilizes funds from everyone regardless of their health status, income, or occupation. Consequently, it avoids many problems common to systems in which individuals and firms can choose whether or not to acquire insurance, namely *adverse selection* (the tendency for insurance to attract only higher risk individuals, thereby raising the average cost of insurance beyond the reach of many people) and *risk selection* (the process by which insurers screen potential clients and try to enroll individuals who present health risks that are below average).

Another consequence of raising funds through taxes is that contributions are usually spread over a larger share of the population than might otherwise be the case. For example, in many countries, employers (and their employees) evade payroll taxes through informal work arrangements and social insurance contributions are frequently capped. In such cases, the burden of financing social insurance systems is concentrated on formal sector workers, who, particularly in developing countries, may represent a fairly small share of the total population. By contrast, there are many other revenues that affect almost everyone, such as value added taxes, sales taxes, and import duties. Thus, the scope for mobilizing resources may be larger for Tax-Based Systems.

The relative comprehensiveness of raising government revenues has further implications for the progressivity of health sector financing. Tax-Based Systems can potentially capture revenues from rents, capital gains, and profits, and therefore may be more progressive than social insurance systems that rely predominantly on a share of formal workers' salaries. In practice, the differences between Tax-Based and Social Insurance Systems is not systematically large though both are clearly less regressive than systems with predominantly private financing (K. Xu *et al.* 2003) !Wagstaff and Van Doorslaer 1993! Wagstaff *et al* 1999. Noting that countries with more progressive tax systems (US, Switzerland, Netherlands and Germany) rely less heavily on general tax revenues to finance health expenditure, Evans suggests there may be a political tradeoff involved. He conjectures that "[a] political coalition in support of tax financing can be assembled and maintained, so long as the redistribution is not too extreme." (R. G. Evans 2002, p. 39).

It is important to note that the feature that allows government tax revenues to be a progressive source of funds also implies that individual contributions are divorced from the individual's likelihood of needing or using health services. For many observers who consider access to health care a right whose exercise should not be constrained by either income or health status, this is a major advantage of Tax-Based Systems. For others, this is considered to be a problem because it is seen as reducing individual responsibility for one's own health and as reducing the accountability of health care providers to the people who use their services.

Many issues in raising funds for health care through Tax-Based Systems are not specific to the health sector; rather, they are shared with other public services financed out of revenues. In this regard, several questions generally arise: Should we tax income or consumption? Should we rely on national or local taxes? And should we rely on general or earmarked taxes? In practice, countries have answered these questions many different ways. OECD countries tax more than 30% of GDP to support public programs and rely heavily on income taxes; while developing countries tax 15% of GDP on average and rely more heavily on consumption taxes (Tanzi & Yee 2000); (Inter-American Development Bank 1998). Even among Western European countries there is enormous variation. For example, Britain relies heavily on general income taxes to finance its National Health Service; while Italy use earmarked income taxes. Regional or local taxes are the predominant source of funding for health in Finland, Norway, and Sweden, while national taxes predominate in Spain and Britain (E. Mossialos *et al.* 2002).

The choice between taxing income or consumption is heavily debated in many countries. Income taxes are said to be more progressive than consumption taxes because the former can be structured to capture progressively larger shares of incomes, while the latter tend to capture similar shares of household income. By contrast, consumption taxes are said to be better for economic growth and long-term well-being because they do not penalize savings or investment.

In both theory and practice, none of these claims find strong systematic support. The theoretical contrast between the effects of income and consumption taxes is blurred when life-cycle decision making is taken into consideration (A. B. Atkinson, A. Sandmo 1980)

and when expenditures for education and health are recognized as forms of "human capital" investment (R. J. Barro, X. Sala-i-Martin 1995). As one consequence, empirical studies will derive different conclusions depending on which way these underlying conceptual issues are addressed.

Both the progressivity and the efficiency of taxation appear to depend more on the effectiveness of the tax system to raise funds and the progressivity of expenditure than on the composition of taxes, per se. For example, most tax systems in Europe are not progressive in the sense that households pay taxes roughly in proportion to their income. The strong redistributive impact of public policy in those countries comes from (1) raising a large amount of money from those taxes and (2) spending those funds progressively. Similarly, in Latin America, Chile has a roughly proportional tax structure that mobilizes a large share of GDP to finance progressive public spending. By contrast, Argentina has a more progressive tax structure, but raises far fewer resources and therefore has less to redistribute {Inter-American Development Bank 1998}. In fact, income taxes raise relatively little in developing countries overall, and their nominal progressivity is often severely offset by very high personal exemptions (V. Tanzi, H. H. Zee 2000, p. 16).

While moving from a heavy reliance on consumption to income taxes is apparently desirable, as demonstrated by the tendency for wealthier and institutionally stronger countries to follow this pattern, the real tax policy question at any given time for developing countries lies elsewhere. Particularly in developing countries with large informal sectors, reducing administrative costs of collection, minimizing tax evasion, maximizing the tax base, and limiting distortions between sectors, activities and uses of resources are the general strategies for an effective policy of raising revenues for public programs (V. Tanzi, H. H. Zee 2000).

Choosing to raise revenues at the national or local level also involves tradeoffs. The scope for subnational taxation is constrained by the facility with which people and businesses can move from one jurisdiction to another in response to different tax regimes. For this reason, it is most common to find local governments relying on property taxes, while state and national governments can rely more on sales or income taxes. The ease with which financial assets can be moved internationally makes it difficult to tax them even at the national level.

As in the case of consumption versus income taxes, arguments about national or local tax revenues revolve around equity and effectiveness. It may be easier to redistribute resources from richer to poorer regions of a country when revenue is raised nationally. However, in practice, this is not always the case since revenue raised in poorer regions can also end up being spent in wealthier and politically more powerful regions. Local revenues may give greater accountability. For example, in Sweden, 85% of local government budgets support district health services. Consequently, local elections frequently deal with the character and satisfaction with local management of district health services (Saltman 1999). But local governments can also be unaccountable when local power is concentrated or, worse yet, corrupt (Fisman & Gatti 2002).

A third question arises regarding *whether or not taxes should be earmarked* (hypothecated), that is, reserved exclusively for specific purposes. Most commonly, such earmarked taxes represent a relatively modest contribution to the health sector. For example, in Australia, earmarked tobacco taxes have been used to finance health promotion organizations in Victoria (VicHealth), Western Australia (Healthway), South Australia (Foundation SA), and the ACT (Healthpact). In New York State, subsidies for hospitals and to reimburse services for the uninsured are financed from a pool of earmarked funds including special cigarette taxes, hospital surcharges, and taxes on insurance policies. A related policy is to require that a certain share of revenues be dedicated to specific purposes. For example, in Colombia and Bolivia, a minimum share of revenues transferred from the central government to municipalities must be spent on health services {Bossert 2000 145 /id}.

The arguments in favor of earmarking are largely political in nature. If government health spending is too low or unstable, an earmarked tax could increase and stabilize resources by insulating health spending from competition with other publicly funded activities. Alternatively, if people evade general taxes, they may still be willing to contribute to an earmarked tax if it is dedicated to a service, like health, that they value. This can make the tax more effective at mobilizing resources and make the system more responsive to taxpayer preferences (R. S. Teja, B. Bracewell-Milnes 1991). An additional economic argument for earmarked taxes, when they are levied on harmful products like tobacco and alcohol, is that they encourage better health by reducing consumption.

On the other hand, critics argue that earmarked taxes reduce flexibility in public decision making to address changing circumstances and may simply be offset by cutbacks in other general sources. Numerous examples demonstrate how earmarked funds are "raided" by governments to use for other purposes. This has been a common experience with gasoline taxes that are supposed to be dedicated to road maintenance or cigarette taxes that are supposed to be earmarked for public health promotion. Furthermore, earmarked taxes can insulate the agencies they fund from accountability to the public {Brett & Keen 2000 241 /id} (J. Buchanan 1963).

In sum, the choice of *which* taxes to rely upon in a Tax-Based System has to be a pragmatic one. The theoretical arguments for one kind of tax or another are easily trumped by the practical issues involved with administering and raising revenues. In terms of promoting equity, the amount of money that a tax can raise (and make available for redistribution) is probably more important than how progressive it is. In terms of efficiency, it is better to rely on taxes that are broad-based, but also taking into consideration administrative costs. Whether or not to earmark taxes is very much an open question and has to be decided with the political dynamics of budget allocations in mind, something that will be discussed further below.

III. Management and Use of Tax Revenues for Health

An important aspect of financing health services through general taxation is that decisions over the use of these funds is filtered through political processes. For

proponents, this is one of the key benefits of general tax-based financing -- health service decisions are guided by collective decision processes rather than a market or by private entities. For critics, however, the political process generates a series of problems that either obviate the advantages altogether or require specific attention.

Allocation to health. At the highest level, decisions are made over how much of general government revenues should be dedicated to health services. Complaints of underfunding are common in Tax-Based Systems, particularly in contrast to countries with social or private insurance in which the major debates often focus on containing costs. In these systems, the process by which the spending level is determined is a political one that forces governments to weigh tradeoffs between health and roads, education, defense and other public functions. When general revenues are substantial and other needs are less pressing, the likelihood of increasing spending on health through such a process is greater (J. P. Dunne *et al.* 1984).

Although governments with Tax-Based Systems are frequently criticized for spending too little on health, it is important to note that the level of spending is a "collective" decision - in the sense that it emerges from political processes. The level of spending in other systems, relying more heavily on private spending or multiple social insurance schemes, is determined instead by a mix of political, market and behavioral forces and cannot be guaranteed to yield the "right" level of spending either.

Allocation within health. Once funds have been allocated to the health sector, political processes also determine the allocation of these funds. Thus, decisions must be made regarding the appropriate balance between spending on: personnel and supplies; recurrent costs and capital investments; public health functions and personal health services; direct provision and contracting; rural and urban areas; and rich and poor regions.

Such allocation decisions are affected by different actors, including health care personnel, unions, political parties, civil society organizations, and the like. Each of these actors has different degrees of organization and political resources. In general, allocations appear to favor groups who are smaller, better organized or wealthier (N. Birdsall, R. Hecht 1997). Consequently, complaints appear that the Tax-Based System has allocated too much to salaries at the expense of health care supplies; to curative care at the expense of health promotion; to hospitals at the expense of primary facilities; to rich urban groups at the expense of rural areas and the poor. Nevertheless, the "right" share to allocate to these functions cannot be determined a priori, and it is an open question whether the political allocation process is better or worse than other mechanisms.

Efficiency of provision. In Tax-Based Systems, the political process also has an impact on the efficiency of provision. Public sector management has strengths and weaknesses relative to other forms of managing health services. On the one hand, it can be administratively simpler than alternative mechanisms that involve multiple funds and multiple payment mechanisms. Furthermore, it can be efficiently programmed and integrated since all the various instruments, funding, assets, and management, are in the same hands.

On the other hand, public sector management presents its own particular problems. Contractual arrangements with health care workers are usually tied to civil service pay scales and conditions, making it difficult to adapt the terms of work to the specificities of the health sector. The way personnel are managed will determine whether such contractual arrangements will raise productivity by giving workers security and increasing motivation, or will reduce productivity by making it difficult to redeploy or discipline staff. In general, such systems provide fewer incentives to innovate and be client-oriented than other mechanisms that include competition (whether internal to the public sector or between public and private providers) (World Bank 2004); Inter-American Development Bank 1996; World Health Organization 2000).

Evans suggests that different dynamics of getting resources between public sector services (like the NHS) and privately or independently managed services lead to very different "marketing strategies". Private entities get more clients and revenues by advertising how good they are. Public entities get more revenues by arguing how bad conditions are and demonstrating the bad effects of limited funding (R. G. Evans 2002). This would account, in part, for the fact that public debates over the cost of health care exist in almost every country and over long time periods regardless of the amount of spending. The US congress was holding hearings on the high cost of health care expenditure in the 1950s when it represented less than 5% of GDP, while today it represents 14% of GDP.[2] Countries in Asia are concerned about health care expenditures rising above 2 or 3% of GDP when countries with similar income levels in Latin America are debating over health care expenditures greater than 7% of GDP.

In sum, general tax-based health service systems exhibit all the advantages and disadvantages of other political institutions, and vary in their effectiveness depending on the social context. Although it is not possible to predict in which countries a Tax-Based-System will function well, it is instructive to look at countries that have adopted such systems to see what issues arise and how they have been addressed.

IV. Experiences with General Taxation

How do Tax-Based Systems actually perform under specific conditions? This section describes Tax-Based Systems in four countries and in each case it addresses three questions: how did the system develop? How successful has it been? And what problems and new initiatives are currently emerging? The four cases are selected with the intention of presenting a range of experiences in countries with different levels of income, but cannot be considered statistically representative in any way.

[2] All data reported on health expenditure is from the NHA unit, EIP/FER/FAR, WHO for the year 2000 unless otherwise noted.

Table 1. Selected Expenditure and Health Data, 2000

	GDP Per Capita	Total Health Exp. Per Capita	Total Health Exp.	Govt Exp.	Govt Health Exp.	Govt Health Exp.	Private Health Exp.	Tax-Based Health Exp.	Hale0
	US$		% GDP			%THE			Years
Brazil	3,217	267	8.3	40.1	3.4	40.1	59.2	40.4	57
Malaysia	4,020	101	2.5	25.5	1.5	58.8	41.2	57.8	62
Sweden	25,794	2,179	8.5	58.0	6.5	77.3	22.7	77.3	71
United Kingdom	24,092	1,747	7.3	39.5	5.9	81.0	19.0	72.0	70
High Income	21,113	1,622	7.6	40.1	5.3	70.4	29.6	48.1	68
Upper Middle Income	5,027	296	6.0	35.5	3.8	64.7	35.4	38.9	60
Lower Middle Income	1,779	103	5.7	32.0	3.4	60.8	39.7	45.3	57
Low Income	520	18	4.2	26.1	2.2	53.8	46.3	36.2	43
OECD	20,126	1,675	7.9	42.0	5.7	72.3	27.7	41.7	68

Source: NHA Unit, EIP/FER/FAR, WHO.
Note: Income groups are based on World Bank classification.

Great Britain

Britain's National Health Service (NHS) is commonly cited as the paradigm for Tax-Based Systems (Musgrove 2000). Britain taxes about 40% of its national income and dedicates some 15% of that to the NHS. The funds for the NHS derive from national revenues that include both income and consumption taxes. Responsibility for health services is devolved to the constituent countries (England, Wales, Scotland, and Northern Ireland). Within these, responsibility is further devolved to local boards or trusts. These local units directly manage or contract services in their communities. Hospital staff members are salaried while General Practitioners (GPs) are paid a mix of fixed allowances, capitation fees and specific service fees. Individuals enroll with a particular GP who provides general health care services and acts as a "gatekeeper" to specialized services (The European Observatory on Health Care Systems 2002).

During the 19th century, a range of employer-based sickness funds, philanthropic societies, and local government-supported poor houses and hospitals developed in the UK. In 1911, the country established a national insurance fund for low-income workers, inspired by the social insurance scheme adopted in Germany some 30 years earlier, but which excluded dependents and hospital treatments. The adoption of a universal health care system was propelled by the country's experiences during World War II, during which the famous Beveridge Report was issued. It advocated establishing a universal insurance system after the war by extending and improving the existing National Insurance scheme. The Beveridge Report specifically advocated a financing system in which individuals would pay a contribution to a national insurance fund in proportion to their needs (Beveridge 1942, paras. 20-22 as reprinted in (P. Musgrove 2000)).

If the UK had followed the Beveridge plan, its health financing system today might look similar to countries with social insurance systems. However, the country's health policies after World War II changed dramatically as a consequence of the Labor Party's victory. Building on the cross-class solidarity that emerged during the war and on the appeal of social solutions being presented by the Communist bloc, the new Health Minister, Aneurin Bevan, proposed to create a single centralized National Health Service financed from general taxes. Bevan won passage of legislation establishing the National Health Service (NHS), but only after making a number of concessions to doctors. The legislation nationalized the country's hospitals, most of which were severely damaged during the war. But in other ways, the NHS built upon and continued earlier arrangements. Local municipal services for health promotion and preventive care continued, while GPs retained their independent status as "contractors" paid by capitation. Use of the NHS was voluntary, and it was not clear at the time how many people would enroll, nor how quickly it would expand. The legislation envisioned financing the system with payroll taxes, complemented by general revenues but costs rose so rapidly, that general revenues became the main source of financing by default (A. Digby 1998).

The NHS expanded quite quickly. Fears that the NHS would evolve into a "lower tier" of a two-tier system were dispelled as the British middle class rapidly enrolled in the service (Digby 1998). Spending on the NHS also rose quickly, from £110 million in 1946 to £348 million in 1950, in part due to increased utilization but largely because of inflation in hospital costs. National Health Insurance revenues did not rise as rapidly, and general revenues gradually accounted for a larger and larger share of the NHS budget (G. Rivett 1997). Today, general revenues account for 88% of the NHS budget.

The outcome of establishing the NHS was quite positive in many ways. Coverage became universal in a short time and health outcomes continued to improve. Successive governments tried to contain costs, but even so, by comparison with most OECD countries, the NHS takes a relatively modest share of GDP (The European Observatory on Health Care Systems 2002). Although the system probably reduced inequities in access to healthcare services, inequities in health outcomes remained. A famous study of officials at Whitehall demonstrated that senior staff had lower risks of morbidity and mortality than more junior staff, leading to an extensive studies and debates over health inequities (R. G. Wilkinson 1996) (Wilkinson & Marmot 2003). Waiting lists for non-emergency treatments, aging infrastructure, and the perception that medical technology in the NHS is lagging the private sector and services available in other countries have sustained criticism of the system (The European Observatory on Health Care Systems 2002).

Over time, the appeal of the NHS has tarnished. In part this is due to changing political trends (e.g. the Tory victories in the 1980s). However, even under the Thatcher government, no one questioned the principles of universality and tax funding for the NHS. Most reforms in the last two decades have focused on the management of the system, changing payment schemes, reorganizing services, and decentralizing many functions. Today, the Labor government has injected new funds into the NHS by increasing its

budget. It is unclear at this point whether the resulting improvements will meet expectations.

Sweden

Sweden adopted universal health coverage in 1955. Its government taxes 58% of national income, of which 11% is spent on public health services. Notably, 66% of government health spending is financed with county tax revenues. In fact, local government is heavily focused on government provided health services that account for an average of 85% of their budgets. This makes health service management a prominent aspect of local government, politics and elections. The local governments, county councils, provide these services directly or, in some cases, contract services from public providers who have been given increased autonomy. Private practitioners are partially reimbursed on a fee-for-service basis (The European Observatory On Health Care Systems 2002).

Sweden's current system of health financing differs substantially from the voluntary insurance schemes that became prevalent in the 19th Century. By 1885, some 10% of the working population had joined "Friendly Societies" that would pay out sickness benefits when a member fell ill. In the latter half of the 19th century, employers also began to create sickness funds for their workers. Unions followed suit, hoping to increase their member's independence by reducing their reliance on employer-based schemes (P. G. Edebalk, J. Olofsson 1999).

In 1891, the government explicitly recognized these societies and began to offer subsidies for their investment and operation. Over the next 40 years, government legislation moved steadily toward realizing the goal of universal effective health insurance coverage. Early regulations sought to reduce the number of societies so that they could achieve economies of scale. The government also gradually increased the number and categories of individuals who were required to have coverage. A gap emerged between professionals with individual contracts and manual workers with collective contracts, with the former enjoying a higher level of insurance coverage, particularly with regard to sick pay. Sweden almost enacted a universal insurance system in 1935, but the economic crisis in that period forestalled adoption. The legislation establishing a universal system was finally passed in 1946 and implemented in 1955 (P. G. Edebalk, J. Olofsson 1999).

Sweden's health service system is successful by many measures. The population's health status has steadily improved and its life expectancy of 80.4 years (The European Observatory on Health Care Systems 2002) is among the highest in the world. The system covers all the population with comprehensive benefits - only dental care has restrictions for those over 19 years of age - for nominal fees that make up only 2% of total public health spending. The public perception of the system remains favorable and the commitment to the principles of universal access is quite strong. Voluntary health insurance is relatively insignificant, involving less than 1% of the population. However, private provision, which can be reimbursed by the social insurance system, is relatively common in urban areas (The European Observatory on Health Care Systems 2002).

Government health spending represents 6.5% of GDP - somewhat higher than Britain (5.9%), and above the OECD average (5.7%) (See Table 1).

Nevertheless, domestic dissatisfaction with the costs, quality, pace of adopting new technologies, and waiting lists, have led to numerous reform efforts over the years. These have involved some limited increases in out-of-pocket fees, but focused mainly on improving efficiency and controlling costs through introducing a split between purchasing and provision of services. Stockholm is the only place that experimented with privatization by selling a public hospital to a private company. In most other cases, county provision has been reorganized into new forms of public non-profit management. Sweden also experimented with reforms aimed at creating an "internal market" -- involving competition among public providers -- by allowing individuals to choose their provider. Movement of individuals from one district to another was limited by special requirements, and at its most extensive, the reallocation between districts based on such movements represented only 2-5% of all funds. Nevertheless, some observers argue that even small movements are viewed as strong signals by politicians and managers and have led to significant responses by providers (C. Rehnberg 1995).

Malaysia

Malaysia's Tax-Based System can be dated to its independence in 1957, when the new federal government took central control of hospitals and facilities that had previously been operated by the various states of the Malay Federation. The government-run system guarantees universal access to health services for nominal fees, yet costs only 1.5% of GDP.[3] Overall health expenditure in Malaysia is lower than in most other countries, but even so, government health expenditures represent 59% of total health expenditure. The system is quite centralized with most of its budget paid from the national treasury. As a result of efforts to decentralize, the country's states are assuming more responsibilities for operating public health services. The medical and nursing staff are state employees and their pay and working conditions are accordingly subject to civil service regulations (S. Barraclough 1999).

Unlike the other countries discussed here, social or voluntary insurance systems were not widespread prior to the establishment of the country's Tax-Based System. Instead, the core of the system emerged from health services that were created to serve the expatriate community during the colonial period - particularly those in the civil service.

When Malaysia gained independence, it followed a pattern similar to other newly independent Asian countries in building growth through strong public investment in infrastructure, education and health. The numerically predominant Malay population used its new political power to enact redistributive policies. A rural health service was developed the full length of the country, in part out of a genuine interest to promote equity, but also to forestall the communist insurgencies of that period (S. Barraclough

[3] The apparently low level of health spending reported by Malaysia (and sometimes other Asian countries as well) has been disputed. In particular, it is not clear whether this figure includes government spending on health services provided by the military and state-owned companies for their personnel.

1999). This was no small feat given the country's size and many large inaccessible areas in such states such as Sarawak and Sabah. Over time the public system grew to encompass some 8,700 doctors, 21,000 nurses, and 120 hospitals, as well as many school-based facilities, rural health service clinics, midwife clinics, and dental offices (Malaysian Ministry of Health 2001). In parallel, effective programs were introduced to reduce infant and child mortality, halt the spread of infectious diseases and improve reproductive health. In part as a consequence of these efforts, infant mortality dropped from 75 per 1,000 in 1957 to under 9 per 1,000 in 1996. Vaccination coverage is high, and life expectancy at birth is currently estimated to be 70 years for men and 75 years for women.[4]

The costs of Malaysia's public health service is modest by international standards, but still shocking to the government and policymakers who see average annual increases in the per capita health budget of more than 10% as unsustainable.[5] Partly for this reason, and also because of a predisposition to rely on partnerships between public and private actors in other sectors, the government has sought to shift financing for health care out of the government budget. In particular, it has debated proposals to create a new payroll tax, medical savings accounts, or extensions to the country's mandatory pension plan.

The system is not without its strains or detractors. Incomes have grown very rapidly (8% per year over a 20 year period) and the promises of advanced medical technology are increasingly visible. Both these trends have raised popular expectations more rapidly than the public system has been able to respond. As one indication, 73% of Malaysians who were ill and sought outpatient treatment consulted private doctors. Nevertheless, for catastrophic care, the public sector is still used by most of the population. 89% of those who were ill and sought treatment in hospitals went to government facilities.[6] One indication that public service system provides good care is the fact that it attracts patients from other Asian countries and Middle East.

The government has encouraged the expansion of private or privately-managed care in several ways. First, it has established privately managed facilities, so-called "corporatized" facilities. For example, the well-respected national heart institute, is managed privately though not-for-profit, and is compensated by the government on a fee-for-service basis (R. H. T. Hussein *et al.* 2004). The government has also subsidized the creation of private hospitals through tax concessions, exemptions from import duties on medical equipment, and direct investment by state development banks (S. Barraclough 1997).

The government has also entertained the idea of establishing a national health insurance fund that would purchase services from public and private providers alike. However, it

[4] Data collected by author from the Planning & Development Division of the Ministry of Health of Malaysia, October, 2002.

[5] Note that over recent years, Malaysia's rapid economic growth has almost kept pace with this rate of health expenditure growth so that it remains a relatively small share of GDP.

[6] These figures were calculated by the author from tabulations provided by the Ministry of Health, Malaysia. The tabulations were based on the Second National Health and Morbidity Survey (NHMS2), which was conducted in 1996.

has yet to act on this despite great interest and support from the private sector and many health ministers.

Brazil

Brazil's *Sistema Unica de Saude* (SUS) is a Tax-Based System of comparatively recent vintage. Brazil collects about 37% of GDP in taxes and spends 8.4% of that on health. Consequently government expenditure on health represents 3.4% of GDP. Most of the funding for government health services is raised nationally and transferred to states and municipalities who have the principle responsibility for provision. The increasingly decentralized structure means that forms of payment and organization of services vary across jurisdictions, levels and programs. Government health expenditure includes direct investments in health facilities, fee-for-service and prospective payments to private and public providers, as well as block grants to primary health care.

Like Britain and Sweden, Brazil experienced a lengthy development of work-based insurance arrangements before adopting a universal and general-tax based health service system. In the 1930s, the Vargas government introduced employer-based health insurance for formal sector, government, and parastatal employees. However, the formal sector never came to dominate the economy the way it did in Western Europe. Consequently, the formal sector social security fund, INAMPS, never covered more than a third of the population. This limitation led successive governments through both democratic and military governments to expand public facilities operated by the Ministry of Health and State Secretaries of Health. Even these complementary services remained inequitable, however, being concentrated in the wealthier and more urban areas of the country.

In the 1970s, successive governments sought to rationalize and integrate the many different public programs. In the 1980s, three political trends converged in favor of replacing the existing multiplicity of health insurance arrangements into a single universal and general tax-based system: the growth of civil society organizations in opposition to the military regime at the end of the 1970s; a well-established public health community (e.g. the Oswaldo Cruz Foundation dates to 1900); and the political assertion of regional interests to decentralize most government functions. By 1988, the social security institution was already directing more than half of its funds to municipal health care providers, up from only 6% in 1982 (A. C. Medici 1994).

These trends culminated with provisions in the 1988 constitution to create the SUS - a single unified public health system. Related legislation required that a minimum of 30% of the INAMPS payroll tax should be dedicated to health services, but large pension liabilities along with a severe economic crisis meant that this requirement was never fulfilled. Recognizing this, the payroll tax contribution to health was eliminated and the federal government created a new tax on financial transactions that today provides the bulk of national revenues dedicated to health. As in Sweden and the UK, recent health reform efforts have not questioned the tax-basis of health spending. Rather, they have been targeted at altering the allocation mechanisms across regions and government levels

and at improving the public health provider efficiency through a variety of changes in payment mechanisms, health care models[7], and management.

Health status has improved substantially in Brazil - for example, infant mortality fell from 45.2 per 1,000 live births in 1988 to 27.3 in 1998.[8] However, it is still at very high levels relative to its income level and spending. The resources dedicated to health also appear to have increased substantially in recent years, from 4.2% of GDP in 1990 to about X% in 2000. The public share has also increased over this period, from 2.8% to 3.4% of GDP; however, private health spending has increased even more rapidly so that the public share of total health spending has declined from about two-thirds to about less than half over the same period.[9]

Critics of the SUS today focus on its limited coverage, continuing inequities, and low quality. As of today, the SUS is the least successful of the Tax-Based System's discussed in this paper in terms of coverage. About 40% of the population only uses government-financed health services; another 44% use government services and private services; while 16% never utilize government services at all.[10] People in some rural areas still cannot reach basic health services. Access is highly variable depending on location and income. Inequities are apparent across regions; for example, per capita health spending in Tocantins was only US$67 in 1996 compared to US$440 in the Federal District.

In many ways, it is too early to judge the success of the SUS. It has only been implemented recently, and it suffered through severe economic constraints in its early years, including cuts in real federal health spending of 42% between 1989 and 1992 (A. C. Medici 1994), Table 22. Furthermore, popular expectations and demands for medical services were already quite high when the SUS was implemented, in contrast to available medical treatments in the 1950s when the UK, Sweden, and Malaysia moved to universal tax-financed care. Only time will tell if steady investments in SUS and improved regulation of the private sector will lead to a more equitable and effective health system.

Patterns

These four countries present a range of experiences with Tax-Based Systems. In Britain, Malaysia and Brazil, financing is based on national revenues, while Sweden's public health services rely largely on local taxes. Britain and Malaysia have strong national management of the health services, while Sweden and Brazil have decentralized models with local management of services. Britain, Sweden and Malaysia have effectively

[7] For example, PROFAMILIA is a program that encourages the formation of general practice teams who are made responsible for the population in a particular district - both for health promotion and treatment.
[8] The reduction in infant mortality is due to many other factors than government provided health services. The figures are reported as a demonstration that population health status has generally been improving over this period. The source is Brazilian government data reported in Nascimento, *et al* 2003.
[9] Data for 1990 taken from World Bank, 1993, Table A.9. This data represented one of the earliest efforts to obtain comparable health expenditure data across developing countries. The figures have been subjected to revisions over recent years as more data became available. In particular, the data reported in World Bank, 1993 tended to underestimate private health expenditure.
[10] Based on an IBOPE survey conducted in 1998 and reported in Medici 2002.

reached their goal of universal access, while Brazil is as yet unsuccessful in this regard. Government spending on health in Malaysia is relatively low as a share of GDP compared to other upper middle-income countries; while government spending in Britain, Sweden and Brazil is close to the average of their respective income categories.

In each case, establishing the system required a political movement focused on universalizing access to health care. In the UK, this emerged from the social effects of World War II. In Sweden, it was rooted in the steady expansion of union power. In Malaysia, the Malay population asserted control after the British withdrew; while in Brazil, the SUS emerged from the same civil society organizations that were promoting redemocratization in opposition to the military regime. In the UK, it was also necessary to gain support from or neutralize resistance by doctors and the health care community -- something that does not appear to have been a prerequisite for the other countries.

With the exception of Malaysia, each country established its Tax-Based System on a foundation that had been laid by the growth of social insurance plans. Thus, the basic infrastructure for health care services and payment mechanisms were already in place. In Britain and Brazil, the shift from reliance on payroll taxes toward other government revenues was almost by default -- the original plans called for the bulk of government health expenditure to be covered by payroll taxes, but rising expenditures (in the UK) and noncompliance with a set-aside provision (in Brazil) forced governments to increasingly pay for health care from other taxes.

Today, the country's share many features. The budget for government-financed health care services is determined through political processes - forcing health care to compete with a variety of other government services for funds. Sweden's government health care services are already highly decentralized; but Britain, Brazil, and, to a lesser extent, Malaysia are all moving in that direction. In fact, the most reform efforts are aimed at improving allocation mechanisms and the efficiency with which funds are applied. None of the reforms or current proposals for change in Brazil, Britain or Sweden question the notion that health services should be largely financed with government revenues. Only in Malaysia has there been discussion of replacing the existing Tax-Based System with some form of social insurance scheme.

The scope and quality of services differs across these countries, with reasonably good performance in Britain, Sweden and Malaysia; yet they share common complaints about waiting lists, aging infrastructure, unresponsive staff, lagging technology, and rising costs. Along with rising incomes and expectations, the private sector has expanded in each of these countries - the least in Sweden and the most in Brazil.

All four systems bear out Evans conjecture that public systems try to obtain more funds by complaining not by advertising. They are continually under pressure to keep spending within fixed budgets, while meeting rapidly rising expectations for new investments in better, more technically advanced, and faster services. The outcomes are determined by the interplay of political parties, public service unions, economic growth, civil society organizations, and employers.

Bismarck stated, "Politics is the art of the possible". The establishment and performance of Tax-Based Systems depends on what politics makes possible in a particular country. Three of these countries have achieved many of the positive goals set by public policy -- universal access, rising health status, moderate costs -- so that one could say that politics has made better health systems possible. The qualification for countries considering the adoption of a Tax-Based System is that the political conditions for effectively mobilizing funds and efficiently applying them are not universal. The Brazilian case demonstrates some of the limitations of this approach to health care financing when placed in the context of lower income and less effective governance.

V. Messages and Conclusions

Choosing to finance a health system out of government revenues is not something that happens without precedent. Today's Tax-Based Systems have emerged from broad political, social, and economic trends. Moving toward a reliance on government revenues requires different strategies in countries with established social insurance mechanisms - where the dynamic is one of integration and substitution - from those in which such mechanisms are absent - and a health system has to be built in a weak institutional environment. In all cases, the success of such a strategy will depend on how effectively the political system can govern the allocation of funds and the efficiency with which they are applied. In this sense, moving toward Tax-Based Systems aligns the problems of health service provision with the difficulties other publicly financed or provided services.

Despite theoretical debates over the merits of consumption versus income taxes, national versus local, and earmarked versus general, the best guidance for tax policy is to focus on very pragmatic questions. Taxes should be raised keeping in mind the costs of tax administration, tax distortions in economy, and the politics of allocations (in the case of set-asides and earmarking). The net equity of health system financing depends more on the amount of funds that the tax system mobilizes and the way in which it is spent, than on the progressivity or regressivity of the taxes themselves.

Even the most successful Tax-Based Systems are subjected to regular criticism. In part, this is simply the result of locating debates over health services in the public sphere rather than in private markets. In part, it results from expectations for faster, more technologically advanced, and more responsive health services that are rising faster than public systems seem able to respond. In most cases, however, countries with Tax-Based Systems have retained strong support for financing health services with general revenues. Instead, dissatisfaction has spurred innovations in the way funds are allocated and applied - by changing allocation formulas, decentralizing responsibilities, separating purchasing from provision, and experimenting with new payment mechanisms, to name only the most prominent ones.

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