

# Health Financing in Hong Kong: the Current Status

## Introduction

Healthcare financing has been on the political agenda around the world for more than a century (Starr 1982). As health systems worldwide grow both in their capacity to improve human well-being and in their cost, governments must increasingly pay attention to the financial aspects of these systems. Recently, healthcare financing has moved to the forefront of Hong Kong's policy agenda (Hong Kong Special Administrative Region (HKSAR) Government, 2000; Hsiao, Yip et al., 1999), as it did in the 1980s and 1990s (Scott, 1985; Hay, 1992). As with many post-colonial economies, Hong Kong has established a dual medical economy in which the government has been significantly involved in both the funding and provision of health services mainly through tax financing, whereas the private sector operates in a loosely organised manner as individual clinics that dominate or populate the ambulatory care sector (Gauld, 1998).

From an academic perspective, one does not have to resort to moral principles or arguments about the welfare state to justify the government's involvement in health (Prekers, 2001). The conventional beliefs of most economists in such ideas as free market competition cannot apply to the efficient provision of health services (Newhouse, 2002). Healthcare is a very different 'commodity', and the differences between healthcare and other goods were first articulated in Kenneth Arrow's seminal article on moral hazard (Arrow, 1963). Simply put, the problems that are associated with information asymmetry between the supply and demand sides have long been recognised as being the major justification of the visible hand in healthcare financing (Donaldson and Gerard, 1993).

However, it is the heavy involvement of the government that has triggered the recent healthcare financing debate in Hong Kong. Although the recent economic downturn and consequent reduction in fiscal revenue has prompted healthcare providers to find ways to balance their books immediately, the presence of longer term challenges, such as ageing, advancement in medical technologies and shifting epidemiological patterns, all question the long term sustainability of the current financing system. There is a pressing need to address this concern. According to the medium term projections of the Harvard team, public healthcare expenditure will take up at least one-fifth of the fiscal budget by 2016 to meet local healthcare needs. However, a withdrawal of the fiscal commitment to healthcare investment would imply a greater dependence on private sector care through the current fee for service arrangement if no alternative form of financing is found. Whether such a proposal would induce the formation of a prepaid, risk-sharing sector that prevents the population from being exposed to the high risk of out of pocket payments becomes an important empirical problem that requires a quantitative assessment.

To that end, this chapter offers a general appraisal of the current status of healthcare financing in Hong Kong as a basis for discussion about future reforms to the financing system. Specific attention is paid to the extent to which various sources of finance are deployed, and their implications for efficiency, equity and sustainability.

## Features of Hong Kong's health financing

*Where does the money come from?*

Financing information is essential input for strengthening policies to improve health systems functioning. To identify distinguishing features of the financing system in Hong Kong, it is instructive to compare the portfolio of funding sources with those of other economies. Such a comparative analysis requires a common standard. By far the most internationally recognised approach to the analysis of the financial flows of the healthcare sector is the National Health Accounts, which provide a rigorous classification scheme that applies to most health systems in the world. Within the terminology of the National Health Accounts, financing sources are distributed through financing agents, which are intermediary institutions that collect financial resources and use them to purchase health goods and services. Common financing agents that apply to most developed countries include the government taxation system, social security systems, private insurance, non-profit institutions and direct out of pocket expenses.

Table 1: Sources of finance for health expenditure in selected economies (%)

	Hong Kong	US	UK	Singapore
Tax and government revenues	54%	30%	73%	28%
Social insurance	0%	15%	10%	7%
Private insurance	9%	34%	3%	0%
Out of pocket payments	36%	16%	11%	65%
Others (e.g. charitable organisations etc)	1%	5%	3%	0%

Sources: Hsiao, Yip et al. (1997); The World Health Report 2001 – Annex 5

Note: Data on Hong Kong are from 1996-1997; Data for other countries are from 1998

Table 1 compares the healthcare financing system in Hong Kong with those of the United States, the UK and Singapore. The data show that the Hong Kong government is the principal financing agent. Hong Kong has a higher ratio of tax financing (54%) than the United States (30%) and Singapore (28%). However, out of pocket payments occupy a larger share in Hong Kong (36%) than in the UK (11%), although both medical economies are dominated by the public sector.

Behind these numbers lie different institutional arrangements. In the UK, both primary and secondary care are tax-funded, which makes the proportion of tax-financed healthcare very high (73%). However, the National Health Service of the UK has created an internal market in which primary care physicians act as agents to 'purchase' further services for patients. In Hong Kong, the government also assumes the role of service provider, but the secondary care sector is directly funded. The government deploys the revenue that is collected, and redistributes it mainly to the operations of the Hospital Authority and the Department of Health. In the 2001-2002 financial year, taxpayers contributed almost HK\$30 billion to the Hospital Authority and HK\$3 billion to the Department of Health (HKSAR Government, 2003a). The Hospital Authority offers

hospital-based secondary care (i.e., hospitalisation and specialist outpatient services), and the Department of Health focuses on disease prevention and regulation.

The majority of primary care needs are delivered through private medical practitioners, which explains the higher level of out of pocket expenditure that is found in Hong Kong than in Western countries. Although Hong Kong does not have government-administered social insurance, local residents still do not have the incentive to enrol in a private health insurance scheme. Government healthcare services, which range from hospitalisation to specialist outpatient care and general outpatient care, are highly subsidised (over 90%). Hence, waiting times act as a price for rationing services (Yeung et al., 2005). Out of pocket funding mainly comprises fee for service transactions for doctors' consultations by the majority of the population that does not wish to wait.

The out of pocket component in Singapore is much larger than it is in Hong Kong, but should be interpreted differently. These payments in Singapore operate through mandatory saving accounts, and this can also be interpreted as an income tax that is earmarked for health, although the accounts are still owned by individuals.

*Is the government the only agent that offers financial protection?*

Public sector care offers universal coverage to all local residents in Hong Kong. Those who are in the labour force and their spouses may be entitled to medical benefit schemes that are offered by their employers, but this mostly occurs in established organisations. Employees of private corporations often enjoy subsidised care in the private healthcare sector. Civil servants or staff of the Hospital Authority (and their family members) are entitled to complete fee waivers when they seek care in public hospitals and clinics. In this sense, contributions from employers are an important source of finance.

Employers offer a variety of medical benefit schemes, and a recent government survey offers a broad picture of this financing source. The data offers a more up to date and detailed picture of the medical benefit coverage of the local population than is available in the National Health Accounts exercise that was conducted in 1998. Table 2 shows that 30% of the Hong Kong population is covered by employer-provided medical schemes, two thirds of which are offered in the private sector. Because employer-provided schemes are mostly tied to the seniority of staff, the coverage is regressive. More high-income earners are covered by these schemes than low-income earners.

Table 2: Covered by medical benefits provided by own or family members' employers

Monthly personal income	Yes			
	No	Private sector	HKSAR Government	Hosp. Authority
HK\$	%	%	%	%
<5000	85.7	7.4	6	0.9
5000-9999	71.3	25.5	2.9	0.8
10000-14999	50.1	43.3	6.1	2
15000-19999	35.5	52.8	11.4	2.9
20000-24999	33.5	45.7	21.4	2.3
25000-29999	24.6	50.5	23.1	6.4
30000-39999	29.2	50.9	17	7.4
>40000	22.9	54.5	21.2	7.7
<b>Total</b>	<b>69.6</b>	<b>22.3</b>	<b>7.4</b>	<b>0.8</b>

Source: Thematic Household Survey 2002. Census and Statistics Department

A further question that may be asked is exactly what these medical benefit schemes cover. In Hong Kong, hospitalisation and outpatient visits in the public sector by civil servants and Hospital Authority employees are free of charge. For employees in the private sector, those who are covered can seek care from private practitioners for all sorts of services, such as general doctor consultation (96%), specialist consultation (55%), hospitalisation (65%) and Chinese medicine (19%). About half of those who are covered (52%) are required to pay a co-payment, such as a fixed percentage of the consultation fee and excess fees above a capped amount, for doctor consultations.

Table 3: Population currently holding medical insurance policies in Hong Kong

No medical insurance policy	73.3%
Pure medical insurance policy	5.2%
Medical rider attached to other insurance policy	21.5%

Source: Thematic Household Survey 2002, Census and Statistics Department

Personal insurance is another source of financing. As explained, personal insurance is still unpopular in Hong Kong compared with the United States (Table 3). The majority of the population does not hold a medical insurance policy on a personal or family basis, although the medical benefits that are offered by most private sector employers are arranged through insurance companies. Of those who hold a medical insurance policy (26%), 80% simply hold a medical rider that is attached to their life policy or an accident insurance policy. In other words, only 5% of the Hong Kong population holds 'pure' health insurance.

#### *The financial risk of hospitalisation*

Protection from major financial risk is an important goal in health policy. Hospitalisation can represent a significant financial burden for households. In Hong Kong, approximately 6%-7% of the population are hospitalised every year (Table 4). Of those hospitalised,

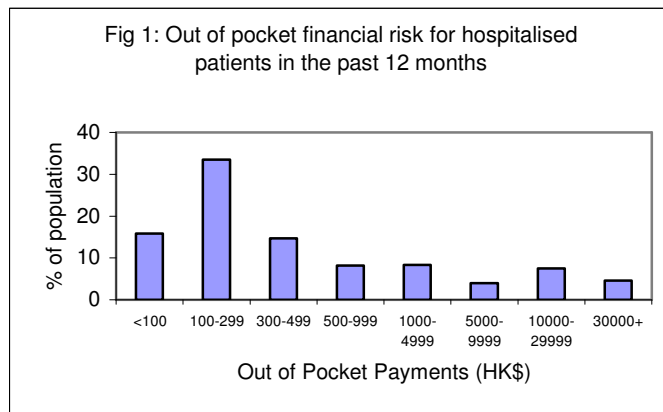
three quarters are required to pay the highly subsidized fees and thus minimal (\$100 per diem) fees from their own pockets. Only a tiny proportion of the population actually receive partial coverage from the medical benefit schemes of employers or insurance companies (3%), because most of those who are hospitalised are aged and retired. However, about 15% of the hospitalised enjoy free of charge status, primarily because they are civil servants, Comprehensive Social Security Allowance recipients or staff of the Hospital Authority.

**Table 4: Hospitalization and payments**

% of population hospitalized in the past 12 months	6.4%
<u>Co-payment among hospitalized</u>	
100% paid by the patients	75.0%
100% covered by insurance or medical benefit	7.5%
CSSA / Civil servants / other who do not need to pay	14.8%
Co-pay part of the bill	3.0%

Source: Thematic Household Survey 2002, C&SD

The major financial risk has a typically skewed distribution (Figure 1). Perhaps due to the relatively short average length of stay, almost 50% of the hospitalised who need to pay are subject to a payment of less than HK\$300. Notably, public hospitals are responsible for as much as 96% of all hospitalisations in Hong Kong (roughly 20% of the hospitalised stay in both private and public hospitals during a single episode). As most of the cost of hospitalisation is funded by the taxpayer (there is a 98% subsidy rate), most residents are subject to a ‘reasonable’ amount of out of pocket expenditure when they are hospitalised.



## **Does the current financing arrangement achieve the health policy objectives?**

### *Equity*

Equity, or fairness, is another important policy objective. Equal access to services is guaranteed in Hong Kong, and thus is not a problem. There is a widespread, although not unanimous, agreement with the principle that the financial burden of providing healthcare should be distributed fairly across the population. One general notion of fairness is the extent to which contributions towards healthcare are related to the ability to pay. More specifically, fairness in healthcare financing can be conceived of as proportional or progressive in terms of the relationship between payment and the ability to pay (Wagstaff and van Doorslaer, 2001). Whatever the precise conception of fairness, a description of the association between healthcare payment and the ability to pay is of interest from a wide variety of equity perspectives.

Although employment-based medical benefit coverage is positively associated with seniority in corporations in Hong Kong, the tax-funded, highly subsidised public sector care makes Hong Kong's healthcare system very equitable. Most users of public services need to pay only a small amount or do not need to pay at all. The tax system detaches users from payers, and hence the link between the ability to pay and the amount paid. In addition, the highly skewed income distribution implies that only a small proportion of the working population are taxpayers, and most of them do not utilise the services. The tax system redistributes the societal resources from this group to the sick and poor.

### *Efficiency*

Most healthcare reforms in developed countries around the world are concerned about efficiency. The National Health Service of the UK, for example, was transformed to create an internal market with the primary intention of addressing efficiency (Enthoven, 2002). Within the context of healthcare financing, efficiency refers to whether the arrangement offers sufficient incentive to players, and to the whole community, to achieve more benefit per dollar by streamlining procedures (technical efficiency) or through the redistribution of resources (allocative efficiency). Thus, economic principles address the problem of how best to produce the goods or services and also what to produce. The conventional wisdom of public sector economics tells us that inefficiencies are common in a typical state-funded health system, although Maynard (1994) pointed out that there is little evidence from the National Health Service reform in the UK that competition in healthcare produces improvements in resource allocation, as liberalisation can undermine the ability to contain cost through the erosion of single payer constraints and quality competition.

We can obtain a general impression of the overall performance of a healthcare system by looking at how much an economy is spending on health. In terms of the conventional methods of measuring health system performance, namely the infant mortality rate and life expectancy, Hong Kong led selected OECD countries in 2000, but spent the least on healthcare as a percentage of GDP. However, without a comprehensive item by item

comparison of specific health services with other countries, it is difficult to draw a definite conclusion about the efficiency of Hong Kong's healthcare system. In other developed countries, economic evaluation has become an integral part of the overall assessment of health technology (Mears et al., 1999). One should compare the cost-effectiveness of a specific medical technology, treatment or other health intervention with a comparable system, although this would be a demanding and resource-intensive exercise.

Table 5: Health spending and health outcomes in selected OECD countries

	Health spending as GDP in 2000	Infant mortality per 1000 live births	Life expectancy	
			Male	Female
Hong Kong	5.0	3.0	78.0	83.9
Australia	8.9	5.2	76.6	82.0
Canada	9.2	5.3	76.0	82.0
New Zealand	8.0	5.8	75.7	80.8
Sweden	8.4	3.4	77.4	82.0
United Kingdom	7.3	5.8	75.1	80.0
United States	13.1	7.1	74.1	79.5
Japan	7.6	3.4	77.6	84.6
South Korea	5.9	6.0	71.7	79.2

Sources:

OECD Health Data 2003; Hospital Authority

In principle, the government provision of healthcare, which is naturally tax funded, can exert greater supply-side control than when services are privately provided (McGhee et al., 2001). The tax funded, public sector dominated system in Hong Kong should be more able to contain cost than alternative arrangements, such as demand-side management. After reviewing 20 years of reform experience in the UK and the United States, Enthoven (2002) concluded that market competition in the United States, which is generally advocated by most economists, has not led to the supposedly more efficient performance relative to the UK.

If the government possesses better knowledge than the general public, it can act as a purchasing agent to cope with inefficiency arising from supplier-induced demand. Although tax financing is a prepaid arrangement that detaches the user from the payer, potential excess demand for the initial contact, or moral hazard, can be controlled through the proper prescription of financial co-payment (fees and charges) or non-financial co-payment (waiting time). The Hong Kong system has such an advantage, although finding the most efficient level of output depends on the determination of the authorities.

### *Pooling risk*

A related health policy goal is the ability to pool risk. For the individual, illness is unpredictable. Ideally, the market would respond to this problem by developing insurance mechanisms whereby enrollees could pay a premium to a risk-pooling agency for the guarantee of some form of financial protection when using the healthcare system. However, this market solution may not work. The problem of adverse selection, in which some groups in a population with a poorer health status have a higher tendency than the

healthier to enrol in health insurance schemes, has now become a textbook case. Social insurance is justified. Universal coverage for all citizens is a guiding principle for health policy makers on humanitarian grounds.

From the actuarial perspective, risk pooling is the spreading of the losses that are incurred by the few over the entire group so that average loss is substituted for actual loss. Risk pooling can often increase social welfare. The major social and economic benefits of risk pooling include indemnification for loss, which permits individuals and families to be restored to their former financial position after a health loss occurs; the reduction of worry and fear; and loss prevention, because risk pooling agencies, such as insurance companies or the government, are often actively involved in health promotion and prevention programmes.

Because the payment of tax is mandatory, the tax-funded public sector effectively acts as a risk-pooling agency in Hong Kong, and offers universal coverage to all local residents. The tax system also provides a means-tested mechanism to adjust the rate of the premium that is applied to individuals with different economic statuses. As the sick are often also the poor, tax financing probably provides the maximum financial protection for the population.

Alternative health risk pooling programmes, such as individual and group health insurance plans, managed care plans, health savings accounts and long-term care insurance, are currently absent or in their infancy in Hong Kong.

#### *Is the system sustainable?*

Based on what we have discussed, the health financing system in Hong Kong seems to be able to achieve common policy goals in healthcare. So why do we need to reform? The most alarming issue is the problem of ageing, which puts huge pressure on the tax-financing system. It is projected that the proportion of those aged 65 and over in Hong Kong will rise markedly, from 11% in 2001 to 24% in 2031 (HKSAR Government, 2003). At present, Hong Kong society is spending \$17.5 million on public sector care per annum for every 1,000 elderly people (aged 65 and over) at present. Doubling the proportion of the aged also means a reduction in the number of taxpayers. If the future workforce also shrinks by half, then the average taxpayer in future generations may need to contribute four times as much to healthcare as the current generation. Financing such an increase in health spending on a pay as you go basis could turn Hong Kong into a welfare state.

This alarming concern was pointed out in the Harvard Report (Hsiao, Yip et al., 1999). In their projection, public healthcare expenditure may take up 20% to 23% of the total government budget by 2016, which is a significant increase from the present 14%. The Harvard projection is based on two key parameters: a 5% annual real GDP growth rate and the historical trend of public health expenditure between 1989 and 1996. Although

the Hospital Authority challenged these assumptions<sup>1</sup>, they did agree with the conventional wisdom that ageing will take a heavy toll on future generations, as the elderly population consumes about three times as much medical services as the general population (Hospital Authority, 1999).

Sustainability concerns society's future ability to finance healthcare for an ageing population and to meet community expectations. Sustainability is therefore a longitudinal, rather than a horizontal, issue. Introducing a social insurance scheme may effectively expand the tax base by earmarking public health spending, but sustainability is still dependent on whether non-users (mostly taxpayers) can provide sufficient funds to cover all expenses on an actuarial basis. Economists would view such problem using an overlapping generation framework, the key question of which would be whether societal productivity growth can match the overall rate of ageing. Detailed studies are required to evaluate the possibility of such an assumption. In the case of Hong Kong, the outlook is pessimistic. Another way to address the issue would be to raise fees and charges to reduce the demand for healthcare. This demand-side approach would, however, diminish the ability to maintain equity. An appropriate healthcare financing scheme should be able to strive for a compromise between these multidimensional goals within an overall health policy.

## **Conclusion**

In this chapter, we offer an appraisal of the current healthcare financing system in Hong Kong. Data show that general revenue is the major source of finance for the healthcare system, followed by out of pocket expenditure. We argue that although the tax-funded public healthcare system is able to meet common policy objectives such as efficiency, equity and risk pooling, its sustainability is questionable, and a new arrangement is required to maintain the quality delivery of healthcare in Hong Kong.

The most obvious solution to this problem is for individuals to pre-fund these expenditures of old age with their own savings (Feldstein and Samwick, 1997). Although in economics the life-cycle model of rational individual behaviour implies that individuals would save on a voluntary basis if the government did not provide the current universal benefits for old age, in reality many individuals do not save adequately for retirement, either because of short-sightedness (Bernheim and Garrett, 2003) or because they explicitly decide to consume all of their earnings during their working years and then rely on whatever means-tested public and private assistance is available after retirement, such as the Comprehensive Social Security Allowance.

The government has recently proposed a mandatory savings scheme called Health Protection Accounts, which may be operated in a similar manner as the Mandatory

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<sup>1</sup> The projected health expenditure is based on the data of 1991-1996, a period in which the public healthcare sector grew strongly as a result of extensive investment in new facilities and hospital beds to satisfy the long suppressed potential demand of the 1980s. The establishment of Hospital Authority in early 1990s may represented a one time structural shift in expenditure.

Provident Fund. The proposed scheme will require every individual to put approximately 1%-2% of their earnings into a personal account to cover future medical needs. Withdrawals from the accounts will be used either to pay for medical and dental expenses at public sector rates in either the public or private sectors, or to purchase health insurance plans from private insurers. The major criticism of this proposal is that a tremendous amount of resources will be 'locked up' for a defined purpose, which would entail a loss of economic efficiency.

Rather than compulsory measures, the government should consider offering an incentive scheme, such as tax incentives, to encourage voluntary saving and enrolment in private insurance schemes. Although the government may be able to address the financing of public healthcare services as an element of the overall fiscal finance reform through a broadening of the tax base (e.g., sales tax), the funding models of the government bureaux and the delivery bodies should be reviewed to minimise the likelihood that these agencies will become self-expanding organisations, which is a pitfall of many statutory bodies. The government should have a detailed cost-benefit model in mind to determine the services that should be provided by the public healthcare sector.

Regardless of the reform package that is proposed, designing an appropriate way to finance healthcare for the Hong Kong population will probably be the most important challenge to government finance in the coming decades. If reform is carried out wisely, then our future generations will enjoy comfortable retirement and the advantages of improved medical technology, and the working population will avoid the explosive growth in taxes that could otherwise occur. However, an institutional arrangement such as the Health Protection Accounts should be considered with great care, because a forced saving scheme could suppress the resources that are available for other forms of consumption. The future sustainability of such a system should also be established, and detailed and serious assessment is thus required.

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