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Private Health Insurance in Malaysia: Policy Options for a Public-Private Partnership

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Abstract: Private health insurance has become important in the funding of healthcare in Malaysia. However, there have been rising concerns over the role of the private sector in healthcare financing because of illegitimate and unethical practices. This paper addresses these issues by focusing on the operational aspects of private health insurance to examine whether there are differences in charges between the insured and non-insured patients in Malaysia. The findings are based on an assessment of hospital bills of two groups of private hospitals. The findings of the study show that there is no difference in charges between the insured and the non-insured patients. The findings also show that the private sector has learned to work within the regulatory boundaries so as to be professional in the execution of their services. However, the study points to some informational problems faced by the insured. Although this is an exploratory study and the findings may not enable a conclusive generalization of the practices of private hospitals in Malaysia, it is hoped that inferences can be made by policy makers so as to enable them to design sound and prudent policies on healthcare finance.

Keywords: unethical practices, regulation, healthcare finance

JEL Classifications: G22, G28, I18, I19

1. Introduction

Health expenditures are increasing daily, and many developing countries are pressured to be engaged in efforts to reform their health systems. The key issues in healthcare systems are: (a) how to raise revenues to pay for healthcare; and (b) how to organize resources to deliver healthcare in the most efficient and cost-effective manner.

In the last two decades, the debate in healthcare reforms has shifted to a call in the reduction of government involvement in healthcare, and an increased role for the private sector (WHO, 2000; World Bank 1987, 1993). In developed countries like the United Kingom and the Scandinavian countries, the role of financing and managing health services remains with the state through its national health service. In developing countries, however, the private sector accounts for a large proportion of services and resources in

the health sector; it is also an important source of healthcare for the poor (Bustreo *et al*., 2003), as it tends to extend coverage of priority interventions, and operate through convenient locations and hours that are widely used by the target populations (Aljunid and Zwi, 1997; Patouillard *et al*., 2007). One of the strategies that could be adopted is the use of public-private partnerships that can pool risks and resources, such as private insurance that will have a profound impact on the health financing system of the country.

In the Malaysian scene, the government is in the process of working out details of a proposed national health financing scheme that would transform the country's health financing from a tax-based system to social insurance and private financing might be needed for this, depending on the extent of population coverage and the services covered. Meanwhile, there seems to be a trend of partnership between public agencies and the private sector to finance healthcare through private health insurance. Therefore, this paper looks at the public-private partnerships in the health sector in Malaysia by examining private health insurance and its practices in Malaysia. The focus is on the operational aspects of private health insurance to examine whether there is a difference in charges between the insured and non-insured patients. The paper also highlights the increasing prevalence of private insurance in an attempt to help inform policymakers and researchers pay attention to private health insurance and the role it can play in the public-private partnerships in healthcare systems.

Although this is an exploratory study and the findings may not enable a conclusive generalization of the practices of private hospitals in Malaysia, it may be useful to feed public debate. It is also hoped that inferences from the study can contribute to the formation of better-informed and prudent decisions in the crucial and controversial sector of public-private partnerships in healthcare finance.

The following section presents a brief literature review of the public-private partnerships (PPPs) and the theoretical underpinnings in the health insurance market. The next section describes the Malaysian healthcare system and private health insurance in Malaysia. The fourth section describes the methodology, namely the data, variables and analysis of selected insurance firms and billing sources from selected private hospitals. Section five presents the empirical results of the hospital charges between those insured and non-insured and the analysis. The final section summarizes the conclusions.

2. Theoretical Guide

In this paper, the term "public sector" refers to that part of the economy concerned with providing basic government services, while the "private sector" is that part of the economy not controlled by the government.

This could be "for-profit" or "not-for-profit" in nature. The term "public-private partnership (PPPs)", in turn, is used to describe a range of inter-organizational relationships and collaborations between the public and the private sector. The World Economic Forum (2005) defines it as "…a form of agreement [that] entails reciprocal obligations and mutual accountability, voluntary or contractual relationships, the sharing of investment and reputational risks, and joint responsibility for design and execution." This definition concurs with that of Blagescu and Young (2005: 4) who define it as "…a partnership where … both parties have agreed to work together in implementing a program, and where … each party has a clear role and say in how that implementation happens."

In the health sector, WHO (1999) defines PPPs as a "…means to bring together a set of actors for the common goal of improving the health of a population based on the mutually agreed roles and principles." In healthcare finance, PPPs refers to the situation where the government mobilizes private sector sources of funds to finance healthcare services.

Health systems all over the world have common objectives of equity, efficiency, quality and accessibility. Thus, government policies and programmes are developed to provide equity of access to such services. However, the opinion on private sector involvement in health is divided. One view is that of distrust: that the private sector is primarily profit-motivated and has no concern for equity or access (Bennett *et al*., 1994). The other view is that there should be strong support for close co-operation between the public and private sector, as suggested by Bloom, Craig and Mitchell (2000) as the latter is neither so easy to characterize nor easy to neglect. Its strength is its innovativeness, efficiency and learning from competition.

As regards payments for health services, there are debates on the relative efficiency of payments through private insurance schemes and their impact on the efficiency of the existing public sector. Drechsler and Jutting (2005) argue that there are positive sides to private health insurance schemes. Their small sizes can reduce bureaucratic processes, and thus can work more efficiently than social insurance schemes. There is also a prevailing view that private financing systems are less able to hold down costs (see Besley and Gouveia, 1994; Globerman and Vining, 1998; McAuley 1993; Propper and Green, 1999; and Ramesh and Wu, 2008). The argument is that although the expanding role of private health insurance may reduce government spending on health, the aggregate health costs could increase. This is because with higher levels of private health insurance there would be higher administrative costs, fewer controls on over-servicing, and the reluctance of private funds to encourage cost-containment methods in private hospitals.

This view of "market failure" in the health insurance hinges on the underlying theoretical underpinnings of information asymmetry that arises

between patients and doctors – that doctors typically know much more about medical conditions and treatments. Patients may accept or even demand treatments they would not buy if fully informed, but which are advantageous, financially or otherwise, to medical professionals, although there is little evidence as to how much of this potential "supplier-induced demand"[1] actually occurs (Alkerlof, 1970; Pauly, 1988). The problem has been documented in both the rich and poor countries. However, in poor societies where there is lack of education and information, it makes it particularly easy to exploit consumers (Bennett *et al*., 1994).

Therefore, in an unregulated private market of third party insurance, the consequence of these specific failures in the health insurance market is that those with high health risks will be under-insured, administrative costs will be higher than necessary because of insurers' efforts to screen out risks and the costs of processing claims in a market with many insurers and many providers, and procedures of low or questionable value will be performed because neither the provider nor the consumer pays for them.

Emerging from this concern is the argument that there has to be greater state involvement and that there are some underlying characteristics that must be in place if partnerships are to be successful. Essentially, it has to have both clear mutually agreed upon objectives and risks, particularly for the purpose of efficient use of resources, cost containment and delivery of quality care. Buse and Walt (2000) summarize that there needs to be clearly specified, realistic and shared goals; delineated roles and responsibilities; distinct benefits for all parties; equality of participation; and meeting agreed obligations. These elements emphasize transparency and accountability and a common understanding between the parties of what is expected, both in the private and public sector.

3. The Malaysian Healthcare System

At the time of independence in 1957 till well into the 1970s, the Malaysian healthcare system was practically a national health service, with the fundamentals of the hospital and the primary care system in place (Chee and Barraclough, 2007). The public sector healthcare system encompasses the entire range of promotive, preventive, curative and rehabilitative services at the primary, secondary, and tertiary levels, and is highly subsidized by the government at a minimum cost or free. The financing of public healthcare services has traditionally come mainly from the general taxation. The government also pays for free healthcare for civil servants. In contrast, the private healthcare which is mainly on curative and rehabilitative care is financed through a combination of employee medical benefits, out-of-pocket payments and insurance expenditure by the population. Most of the larger

employers subscribe to medical reimbursement schemes for their workers and their families. Until recently, private health insurance has been an insignificant source of health financing.

Since the 1980s, in line with its "Privatization Plan", the government has identified healthcare as one of the target areas. In recent years, the government has privatized a number of healthcare facilities, and has turned over the management of drug stores and laundry, and maintenance of the medical equipment at all public hospitals, to the private sector (Malaysia, 1996: 540-1). At the same time, the government in its official statements is providing implicit encouragement for the private sector to share in the provision of healthcare services to cater for those who can afford them, thus freeing public resources for those who cannot afford them. With the push towards a greater role for the private sector in the 1980s, there was an unprecedented growth in the number of private medical facilities which grew from 50 in 1980 to more than 222 in 2005 (Malaysia, 2006). Currently, 54 per cent of doctors are in the private hospitals. With 20 per cent of the country's hospital beds, the private hospitals reported about 20 per cent of total admissions and more than 12 per cent of total outpatient attendances (Ministry of Health, 2004). It was projected that private hospital beds would comprise half of all hospital beds by 2020 (Malaysia, 1996: 540).

Fuelled by rising incomes and the emergent middle classes as well as increasing urbanization, healthcare demand and utilization has increased. However, the robust private sector in health is not supported by a well-placed health financing system, which, therefore, led to the ballooning of out-of-pocket payments to finance the use of private medical care and an increasing resort to health insurance (Chee and Barraclough, 2007).

The Malaysian government has been seeking an alternative scheme to finance health services in a long-drawn out process lasting more than 20 years. This intention was first announced in the *Mid-Term Review of the Fourth Malaysia Plan 1980-1985* (Malaysia, 1984: 376), and since then numerous studies have been commissioned, but to date there has been little development. In 2002, the government announced the establishment of a health insurance scheme called the National Health Financing Fund to coordinate and provide financial assistance for patients to secure medical services from private hospitals (Malaysia, 2006), but apart from that little else is known. The then Prime Minister, Dr Mahathir Mohamad, in his speech in the Parliament, emphasized that in future private funding for health services would be necessary, even in the public hospitals, and that larger companies would be expected to provide health insurance for their employees, and the private sector expected to cross-subsidize the costs of healthcare for those who could not afford it (Mahathir, 1996).

In the mean time, there are signs that healthcare financing in the country is shifting from the public to private resources. According to the Report on the Second National Health Morbidity Survey (NHMS 2) (Public Health Institute, 1999) which was conducted between mid-1995 and mid-1996, per capita out-of-pocket health expenditure was estimated to be RM180, which is 4.80 per cent of per capita annual income. The NHMS 2 also reported that from 1989 to 1996 the out-of-pocket expenditure increased by 40 per cent, an estimate of RM3.82 billion in 1996, a total that is almost equivalent to the public sector expenditure of RM3.99 billion in the same year (Public Health Institute, 1999: 103-4, 111). As such, in 1996, the out-of-pocket health expenditure constituted 1.35 per cent of GNP (or 1.28 per cent of GDP), whilst total public expenditure was 1.41 per cent of GNP (or 1.34 per cent of GDP). According to the survey, from the out-of-pocket expenditure, 71.67 per cent was on private healthcare facilities for ambulatory and curative care, and 14.3 per cent for in-patient care. It should be noted that the NHMS 2 (Public Health Institute, 1999: 102-3) estimate is confined to out-of-pocket expenditure only due to lack of data on expenditure by private sector companies and private health insurance.

More recently, it was reported that in terms of health expenditure, Malaysia spent about 2.4 per cent of GDP, and that private sources of financing account for almost 40 per cent of Malaysia's total health expenditure in the form of direct medical expenses incurred by individuals as well as payments made by employers (Zeti, 2003).

3.1 Private Health Insurance in Malaysia

Up until the 1980s, private health insurance in Malaysia played a very small role. In 1983, it was estimated that only about 1.5 per cent of the population was covered by private health insurance (Davis *et al*., 2006). However, the government's encouragement of privatization in the 1980s led to a substantial expansion in the medical and health insurance business, such that in 1995, the estimated insured population had risen to 15 per cent (Zeti, 2003).

In 2006, 18.8 per cent of the Malaysian population aged 18 and above had private insurance coverage either for (i) medical & health insurance, (ii) life insurance (LI) and/or (iii) other types of insurance related to health. The total premium (weighted for the total population aged 18 and above) was estimated at RM2.99 billion (Davis *et al*., 2006). The total private insurance premium paid by the population was RM2.99 billion of which it was estimated that RM1.21 billion was paid specifically for the medical and health component (Davis *et al*., 2006).

In 2007, the insurers in Malaysia issued a total of 1,169,616 new individual life policies with total sum assured at RM51,073,459.00 (BNM,

2007), with medical coverage plan or health insurance as one of the most popular plans.

The Ministry of Health reiterated that the role of the private health insurance was to complement and supplement the government in financing health services, and that those who can afford are encouraged to obtain private health insurance (Chua, 2004). Various measures have been instituted to assist the growth of the insurance industry. For instance, tax relief on medical/health insurance is up to a maximum of RM3,000 from the taxpayers' personal income (Chua, 2004). Recognizing this upward trend, insurance companies are actively promoting private health insurance, with tremendous competitive products being introduced. The insurance companies in Malaysia deal with life and general insurance businesses. Some of the insurers may offer only life or general coverage while some offer both. In 2007, there were a total of eighteen registered life insurance companies in Malaysia. Many of these companies are of multinational status with some having joint venture agreements with local financial service providers.

All private health insurance in Malaysia is risk-rated, which means that premium charges would vary according to the risks taken on by the insurer. Benefits received for health insurance are usually limited to a specific amount for each individual service, and often to an annual limit. The various health insurance products offered by these companies include hospitalization benefits,[4] surgical incomes[5] and coverage of medical expenses.[6] These benefits are usually offered to large companies for their employees to be covered under group hospitalization and surgical benefits (better known as GHS). The medical plan and limit offered to each employee would depend on the job level and structure of the respective company. The scope of coverage is normally limited to medical treatments in Malaysia only. To cater to the needs of the employers, other add-on benefits are offered by the insurers, with additional premiums.

Under the GHS benefits, expenses for health services are made either through a cashless facility or on a reimbursement basis. Customers would be issued with a medical card, which is applicable at most hospitals in Malaysia that are either on a panel with the insurers or an appointed Third Party Administrator (TPA).[7]

3.2 Legal Framework

The Act governing the insurance business in Malaysia is the Insurance Act 1996, enforced by the Central Bank of Malaysia or Bank Negara Malaysia (BNM). This Act covers all aspects of the insurance businesses, and all insurance operators (including brokers and adjusters in Malaysia) are regulated and licensed under this Act. The Act prohibits the conduct of insurance by organizations other than those registered with Bank Negara. The

health insurance is subsumed within the general insurance business and the provisions under the Insurance Act 1966 are for the regulation of short term, yearly-renewable health insurance products. However, in recognition of the market's need for long term health insurance services, many insurers have begun introducing products with pre-funding and non-cancellable features that last till retirement age; these create long-term obligations for the insurers. Another aspect that has legal implications is complaints from card holders of health insurance schemes who face difficulties while presenting their "cashless admission" cards at hospitals: there are numerous press reports on these. These raise prudential concerns, as there are no provisions under the Act that are specific to health insurance. Also, it is felt that the legislations need to match the various types of health insurance business (Nik Rosnah, 2007).

The Act governing healthcare provisions is the Private Healthcare Facilities and Services Act 1998, enforced by the Ministry of Health. The Act gives wide powers to the Director-general of Health and the Minister of Health with regard to control, registration, monitoring and licensing of private healthcare facilities and services and healthcare professionals. The act provides regulation on all procedural and surgery fees. Also, under the Act, the Minister may prescribe a fee schedule (s.106 of the Act), and failure to comply with this is an offence as set in Part V s. 117 of the Act.

The regulation of the medical and health profession is assisted by two core regulatory bodies, that is, the Malaysian Medical Council (MMC), which is considered as the custodian of the medical profession, and the Malaysian Medical Association (MMA), a self-regulatory body of the medical professionals.[8] The Doctor's Fee schedule for healthcare services is defined by the Malaysian Medical Association (MMA, 2002).

3.3 PPPs in Healthcare Financing

In healthcare provision, some states in Malaysia are directly involved in investor-led private healthcare through the state economic development corporations and state investment holding companies, and indirectly involved through the political patronage of well-connected companies that are awarded concessions for various hospital support services. While the government is deliberating on the establishment of a new healthcare financing scheme, it has encouraged private funding through health insurance to emerge: this is part of its efforts to reduce public expenditure on health care. And, as Chan (2007) observed, the privatization of healthcare financing is most at odds with a welfarist state in socializing risks.

Joint ventures of health insurance schemes have emerged. In 1994 the government introduced a medical saving scheme through the Employees Provident Fund (EPF)[9] by the establishment of Account III of the EPF. In

2000 it was announced that this account may be drawn to meet the annual private health insurance premium of a risk-rated insurance scheme offered by the Life Insurers Association of Malaysia (LIAM) (*Star*, 18 January 2000). The scheme gives government employees the option of seeking healthcare at private hospitals.[10] Accrued profits would be shared by EPF (70%) and LIAM (30%). To date this scheme has yet to be approved by the Treasury.

In 1999 the Confederations of Unions of Employees in the Public and Civil Services (CUEPACS) launched CuepacsCARE, a voluntary, private health insurance scheme, in joint venture with two insurance companies, AMI Insurans Bhd and MediCare Assistance Sdn Bhd. Both schemes are available to those aged 70 and below. Other employee unions are embarking along the same lines. Among the salient points is that there seems to be a trend of partnership with the private sector for private sources to finance healthcare.

4. Methodology

The statistical test conducted on the data collected for this study was to answer the concern of whether private healthcare facilities and services providers charged differently between the insured and the non-insured patients. A total of 115 samples of hospitalization bills were collected of which 41 bills were from the non-insured patients and the remaining 74 were those covered by health insurance. These bills were collected randomly from two groups of hospitals owned by two different corporate bodies in Malaysia (hereafter known as Group A and Group B). The duration of admission is between 1 to 10.5 days. The cause of admission varies with different types of procedure and surgery done. It is important to note that the duration, illness and medical procedure as well as surgery were not standardized in view of the fact that this is an exploratory research carried out within a short time frame of three months. The results of this research are enclosed in the Appendix. The insurer in this research uses the service of two different TPAs located in Petaling Jaya and Subang Jaya,[11] respectively, in managing the cashless facility.

This study also takes a close look at the problems encountered by the insured patients in making their claims. The data obtained is from first-hand experience, as the co-author of this paper is a working claims officer at one of the firms dealing with insurance.

The statistical tests were conducted using correlation and T-test as well as Analysis of Variance (ANOVA)

4.1 Correlation and T-test

According to Coakes and Steed (2000), correlation is performed to describe the relationship between two variables. Underlying assumptions are the

data must be collected from related pairs, normally distributed, having a linear relationship and homoscedasticity.[12] Meanwhile, the T-test is used in determining whether a set of scores is from the same population.

4.2 Analysis of Variance (ANOVA)

ANOVA is appropriate in comparing the means of more than two groups or levels of an independent variable (Coakes and Steed, 2000). The F-ratio in this test is the ratio between-group variance to within-group variance. The significant F-value, where $p < 0.05$, implies that the population means are significant. For this research, the confidence interval would be at 95 per cent. Coakes and Steed (2000) further state that planned comparisons are used when researchers have specific expectations or predictions about some of the results. In this research ANOVA with a planned comparison is used in determining whether there are significant differences on medical charges between the insured patients and non-insured patients.

5. Empirical Results and Analysis

5.1 Hospital Charges

Of the 41 admissions (from Groups A and B) of non-insured patients in private hospitals, the biggest portion of the expenses was on doctors' fee at 42 per cent (RM90,288.79), followed by charges for hospital facilities at 36 per cent (RM77,390.39) and medication at 14 per cent (RM30,096.26). The smallest portion of the expenses was on room charges, which was at 8 per cent (RM17,197.86).[13]

For charges by private hospitals on insured patients, a sample size of 74 admissions (from Groups A and B) was taken: the results show that the largest portion of charges was for doctors' fee at 40 per cent (RM110,714.87), followed by charges for hospital facilities at 36 per cent (RM99,643.38) and medication at 15 per cent (RM41,518.08). The smallest portion of expenses was on room charges at 9 per cent (RM24,910.85).[14]

Analyses show an almost homogenous trend for both groups with doctors' fee being the largest expense. As mentioned earlier, doctors' fee which depends on the complexity of the procedure or surgery, the level of expertise, and the time expended on the patient, is regulated by the MMA guidelines (MMA, 2002), whilst all procedural and surgery fees are regulated under the Private Healthcare Facilities and Services Act 1998 (PHFSA). However, the later is silent on the charges of facilities in the private hospitals. This remains a concern as hospitals could charge beyond the reasonable amount without the patients' knowledge.

5.2 Statistical Results

The Pearson correlation test results show that there was no significant relationship between hospital bill and insurance coverage based on the significant value of 0.327, where $p > 0.05$. This means that insurance coverage does not influence hospital charges.[15]

The results also show that the average medical charges on the insured patients were lower at RM4219.88 as compared to the non-insured patients which were at RM5243.25. This could be attributed to the corporate discounts made to insurers on room and board charges as found in the sample of hospital bills. For doctors' professional fee, there was no evidence of discounts made. This could be because the fee is regulated under the Private Healthcare Facilities and Services Act, 1998 and the MMA Guidelines on Doctors' Fee. The average duration of admission for the non-insured and insured patients is 3 days[16] and 2.66 days[17] respectively.

The Levene test results showed that the homogeneity of variance[18] has not been violated in view of the significant value that is more than 0.05. Hence, interpretation on ANOVA can proceed. F value was obtained at 0.974 with a significant value of 0.327, where $p > 0.05$. This indicated that there was no significance found. Hence, statistically, private healthcare facilities and services providers do not charge differently for insured and non-insured patients.

The T value of the test is at 0.987 with significant value at 0.327. This means that it is not significant in view of $p > 0.05$. Hence, the two groups are from the same population in view of the fact that no significant differences exist.

From the sample of the hospital bills collected, it was found that in disclosing the details of expenses there were two different practices by the private hospitals. For hospital bills settled by patients, the breakdown of the charges was given in one sheet of bill. However, for hospital bills that were submitted to the third party administrators (TPA) and insurers for reimbursement, a detailed breakdown of charges for each and every item was given. One example was the charges for medication: under the customer's bill, the cost of medication was lumped into one item known as medication or pharmacy. However, for bills sent to the insurer, the breakdown for medication charges was given on top of the hospital bill. This breakdown showed the cost and quantity of each and every medicine prescribed and charged. It was also found that insurers were given discounted rates called "corporate rate" on room and board charges. However, the same practice was not applied to non-insured patients.

From the researchers' experience in handling claims in health insurance, many complaints from insurees revolve around two main issues: (a) non-payable items and co-insurance,[19] which range between 10-20 per cent of the

total hospital bill; and (b) exclusions[20] which are standardized and used by all insurers. Hospitalization for an illness that falls under exclusions will not be reimbursed. These are issues of concern as most often insurees are not aware of this information.[21]

The research findings also show that deposit payment was required when using a medical card for admission. Many customers were caught by surprise as they thought it was a total cashless facility offered under their health insurance plan. The customers of the private health insurance also have no guarantee that they will be fully covered for treatment in private hospitals.

These reflect the occurrence of asymmetrical information due to customers' inability to have access to the information. Many of the problems resulted from the lack of understanding and awareness of the terms and conditions of the benefits and exclusions under the insurance policy. There is much technical jargon in the insurance industry, and this may pose a challenge for the insured to understand it. In many cases of claims that were rejected, the insured party felt that they were being cheated. The most common reason given by the customers was that they were promised that the health insurance would cover all types of conditions.[22] There seems to be lack of transparency on the standard of procedures and there is no controlling mechanism. As the regulatory mechanism in health insurance is not in place (Nik Rosnah, 2007), there has been a lot of confusion when claims are submitted and there are also many fraudulent insurance plan being marketed.

6. Conclusions

The findings of the study show that there is no difference in charges for insured and non-insured patients. The findings also show that there is great potential in the private health insurance that could be pooled as one of the resources for efficient delivery of health care services. Policies on healthcare financing can influence healthcare delivery and management, and that the private sector has learned to work within the regulatory boundaries that are set by the government is evidenced in the charges for doctors' fee. The prevailing PHFA and the MMA Guidelines on Doctors' Fee encourages such pragmatism.

However, if partnerships are to lead to quality improvements on the part of both the private and the public sectors, several areas will need to be strengthened. Foremost among these is that the partners need to be accountable to each other and to the customers for the products and services they offer. The study shows that there is incomplete and unequal information, and if the private sector is to be held accountable, this situation has to be remedied. The insurance companies need to provide information on issues such as what is included and excluded; and who is included and excluded.

Making public-private partnerships in healthcare a reality requires political commitment and a clear understanding of how they can be best implemented. The first step is for health professionals to establish a dialog with finance officials and agree on a strategy to engage private sector investment and commitment.

The government needs to have sufficient skills and capacity to deal effectively with the private sector. The government traditionally has worked on 'understandings' without a contractual obligation to provide services, and there is a need for the formalization of contractual arrangements with the private sector, as badly structured contracts can result in opposite effects to those intended. Governments must be equipped with the knowledge to extract maximum benefits from these arrangements.

Malaysia's regulatory framework should not merely consist of two parties, namely the regulator (MOH) and the regulated (public and private providers). It should ideally be tripartite, in which empowered and well-informed consumers play their rightful role in selecting health care providers on the basis of price and quality of care provided. The government's role should be to ensure transparency of key performance measures across the system so that consumers will be well informed and able to make sound decisions with regard to their choice.

Notes

1. In healthcare markets, doctors may encourage patients to demand healthcare they do not necessarily need. In this case the patient is induced to consume healthcare that he/she would not, if he/she had the same information as the doctor.
2. The per capita annual income as reported by the NHMS 2 was calculated to be RM3,748.02 (MOH, 1977).
3. Life insurance refers to life benefits such as death, and hospitalization benefits such as hospitalization and surgical incomes, reimbursement of medical charges, personal accident and critical illness. General insurance deals with coverage on motor, house, fire, marine, and cargo as well as personal accident.
4. Hospitalization benefits offer income payment according to the days of confinement in the hospital. The payment varies according to the type of plan purchased which ranges between RM100 and RM250 per confinement, with limits up 180 days per policy year and subject to terms and conditions under the benefit.
5. Surgical Benefits refer to the indemnity benefit that the insured would be paid a fixed sum of payment according to the plan purchased when a surgery or procedure was performed. This payment is up to the life time limit according to the purchased plan.
6. Besides covering for in-hospitalization charges, the benefits also cover pre- and post-hospitalization charges up to a period depending on the coverage of the medical plan purchased. The period is normally 30 days for pre-hospitalization

and between 60 and 90 days for post-hospitalization. The coverage also includes emergency out-patient treatments due to accidental causes.

7. Most insurers would appoint a Third Party Administrator (TPA) to manage the cashless facility as this facility is offered on a 24-hour basis throughout the year.
8. See Nik Rosnah (2005 and 2007) for further discussion on the regulation of the medical professional in Malaysia.
9. The EPF is the national social security organization. It has more than 10 million members of which half are active. It operates a compulsory retirement savings scheme, to which employees contribute 11 per cent of their wages and employers 12 per cent. Under this arrangement, 10 per cent goes into a separate account which could be drawn upon for treatment of specified illnesses; medical care can be in either the public or private sectors. This allocation may also be used by family members - parents, spouse, children and siblings.
10. The scheme would allow an estimated five million working and contributing EPF members and three million retired and non-working members to use their savings from the EPF to sign up for a health insurance. Members can opt for a low-premium scheme covering 13 critical illnesses, or for one covering 36 critical illnesses for a higher premium. The annual premium will range from as low as RM30 to a high of RM20,000, depending on the age of the policy holder and the category of benefits. Female EPF members would be given a 30 per cent discount in premiums to reflect a lower overall incidence of the designated illnesses, relative to males.
11. The agreement between this TPA and the insurer of this research is not solely on the service as a third party administrator but also focuses on the aspect of brokering. The GHS scheme is offered to the companies introduced by this TPA.
12. According to Coakes and Steed (2000), homoscedasticity refers to the variability in scores for one variable which is roughly the same at all values of the other variables.
13. Please refer to the enclosed pie charts in the Appendix (a. Breakdown of charges by private hospitals for non-insured patients).
14. Please refer to the enclosed pie charts in the Appendix (b. Breakdown of charges by private hospitals from Groups A and B for insured patients).
15. Please refer to the enclosed pie charts in the Appendix (c. Correlation between the insured and non-insured patients)
16. The total duration of admission for non-insured patients is 123 days with admission ranges between 1 – 10.5 days.
17. The total duration of admission for the insured patients is 109 days with admission ranges between 1 to 7 days.
18. According to Coakes and Steed (2000), different population of scores should have homogenous variances and this is known as homogeneity of variance. This is assessed by obtaining variances for each group and dividing the largest variance by the smallest variance to obtain an F-max value.
19. This refers to a percentage of expenses from the total hospital bill, which needs to be settled by the customers. Co-insurance was introduced as a control tool to

curb the demand for unnecessary medical examinations when seeking treatment in private hospitals.

20. Exclusion is a control tool used by insurers in protecting themselves from anti-selection and moral hazards as well as to tighten the benefit coverage from paying non-coverable health expenses. The exclusions include pre-existing illness, which is not covered if the insured had reasonable knowledge of his existing medical conditions prior to purchasing insurance coverage.
21. Information obtained through complaints from customers to co-researcher when making claims.
22. This is the real experience gained by the co-researcher, where he faced with challenges in explaining to customers when claims were rejected due to exclusions under the benefit.

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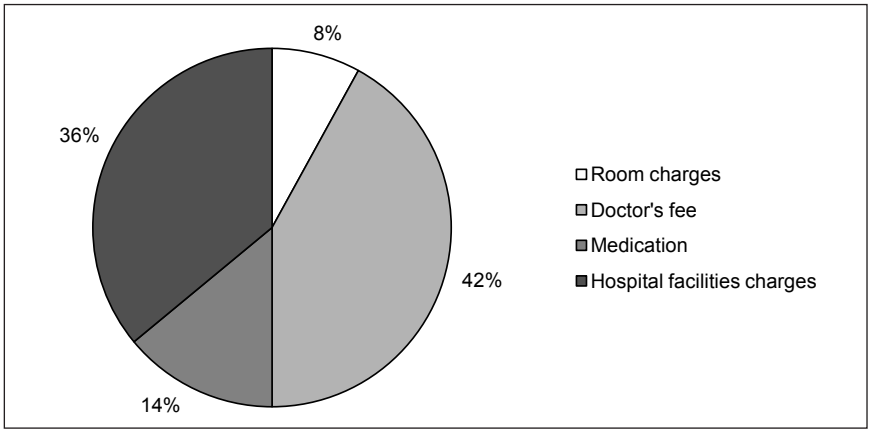
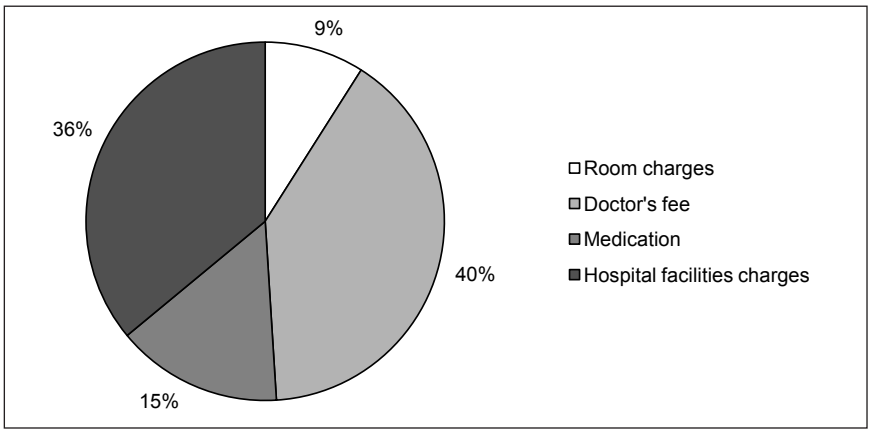
APPENDIX

a. Breakdown of charges by private hospitals for non-insured patients (%)



b. Breakdown of charges by private hospitals from Groups A and B for insured patients (%)



c. Correlation between non-insured and insured patients

		Ins	Hospbill
INS	Pearson Correlation	1.000	.110
	Sig. (2-tailed)		.327
	Sample size, N	82	82
HOSPBILL	Pearson Correlation	.110	1.000
	Sig. (2-tailed)	.327	
	Sample size, N	82	82

d. Descriptive statistics of insured and non-insured patients

	Sample size, N	Mean	Std. Deviation	Std. Error
With insurance	41	4219.8861	4880.4041	762.1911
Without insurance	41	5243.2500	4503.7536	703.3681
Total	82	4731.5680	4695.0916	518.4861
	95% Confidence Interval for Mean		Minimum	Maximum
With insurance	2679.4405	5760.3317	87.38	24523.39
Without insurance	3821.6900	6664.8100	956.76	22904.26
Total	3699.9433	5763.1928	87.38	24523.39

e. Homogeneity of Variances between insured and non-insured patients

Levene Statistic	Df1	Df2	Sig.
.010	1	80	.922

f. Analysis of Variance between insured and non-insured patients

	Sum of Squares	df	Mean square	F	Sig.
Between groups	21469110.375	1	21469110.375	.974	.327
Within groups	1764085604.507	80	22051070.056		
Total	1785554714.882	81			

g. Contrast Coefficients between insured and non-insured patients

	INS	
Contrast	With insurance	Without insurance
1	-1	1

h. Contrast Tests between insured and non-insured patients

	Contrast		Value of contrast	Std. Error	T	Df	Sig. (2-tailed)
HOSP BILL	Assume equal variances	1	1023.3639	1037.1412	.987	80	.327
	Does not assume equal variances	1	1023.3639	1037.1412	.987	79.489	.327