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The Acceptance of Medical Saving Account (MSA) in Alleviating Healthcare Costs

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Abstract

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A healthcare system involves activities whose primary purpose is to promote, restore and maintain health (WHO, 2000). It is fundamental that health systems are able to maintain and improve social welfare. In relation to mobilization of resources and long-term sustainability healthcare expenditure, ongoing efforts by the stakeholders involved are occasionally made to revisit the current system and propose more innovative financing mechanisms. The Medical Saving Account (MSA) is one of the mechanisms being assessed to gauge the efficiency of cost containment. This study aims to examine the health and financial status of selected residents in Shah Alam, analyze the acceptance of the MSA, and determine the level of willingness to pay (WTP) for the MSA. Data collection was conducted by distributing 31 questionnaires as a pilot test. Respondents were randomly selected from Shah Alam and given a guided questionnaire. The data was analyzed using SPSS. Most of the respondents reported a good health status with no serious diagnosed diseases and a good financial status. However, none of the factors studied showed a significant association with the acceptance of the MSA implementation with a median WTP of RM72.30 (approximately 17USD). To develop the MSA as a comprehensive model which can complement existing financing mechanisms, the benefits of the MSA need to be addressed especially in closing the gaps between the current systems as well as improving the current mechanism models or revising the proposed scheme.

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Keywords: Medical Saving Account; Health Saving Account; Healthcare Financing.

1. Introduction

The World Health Organization has stated that a healthcare system involves activities whose primary purpose is to promote, restore and maintain health. It is fundamental to the ability of health systems to maintain and improve social welfare. Health financing refers to the functioning of a health system concerned with the mobilization, accumulation and allocation of money to cover the health needs of the community in the health system. The aim of health financing is to ensure the availability of funding, as well set up the right financial incentives to providers, and ensure that society has access to effective public health and personal health care (WHO, 2000). According to Roemer (1991) the healthcare system is a combination of financing, resources, organizations and management in delivering health care services to the population, including all aspects of economic sources or financing systems which combine to support the mechanism whether from tax revenues, charity donations, voluntary insurance, social security, and others.

However, as stated by Maimunah A.H (2010), Malaysia is facing challenges in its health care system. These include a higher expectation from the public, over-dependency on government-subsidized services which leads to inefficiency in economy, accessibility and affordability, limited coverage of catastrophic illness (eg: haemodialysis, cancer therapy, transplants etc.) and private spending on healthcare overtaken public health system since 2004. The challenge is that healthcare subsidization is not being properly channeled to the disadvantaged groups because in Malaysia, subsidies are enjoyed by the whole population, not only lower-income consumers but also the well-to-do consumers. With the current unstable economic condition, the forthcoming subsidy funds may be quickly depleted if Malaysians continuously depend on the highly-subsidized healthcare system. Hence, sustainable healthcare reforms that can guarantee healthcare financing that best suit each country have become endless issues of discussion since various challenges have to be deliberated and resolved to realize large-scale healthcare reforms. This is the reason why some countries are considering the MSA as a complementary approach to the existing system either by implementing MSA in conjunction with private healthcare insurance which have high deductibles or as a contributing factor to enrich the source of government funds in the future.

In relation to mobilization of resources and long-term sustainable healthcare expenditure, stakeholders are constantly involved in attempts to revisit the existing system and propose more innovative financing mechanisms. With regards to cost containment efficiency, the Medical Saving Account (MSA) is one of the mechanisms being assessed since it is expected to curb the moral hazards involved by revising the holistic framework including the payment mechanism to the provider. This is supported by Chia & Tsui (2005) who mentioned that price sensitization and freedom for customer to choose the most cost-effective care, the MSA can possibly facilitate cost containment. In line with the Malaysia Economic Transfer Programme, this model will include the necessary Strategic Reform Initiatives (SRIs) in rationalizing subsidies programme that have been executed since 2010 with a possible guarantee of a more sustainable government fund as well as optimization of healthcare subsidization.

2. Problem Statement

Increasing healthcare costs is a global healthcare challenge in most countries (Akma, 2014). The actual cost of treating each patient is currently highly-subsidized by the government which inclusively covers consultation fees, medication charges and hospital bills. According to Mazura et al. (2011) in their article "Research Highlight: "How much does primary care cost?" based on a study that was conducted in one of the local public health clinics, the actual treatment cost per patient for acute Upper Respiratory Tract Infection (URTI) is RM 29.85; fever is RM 27.49 per patient; Diabetes Mellitus is RM 79.81 per patient; and hypertension is RM 49.08 per patient. Therefore, as compared to the current patients' registration fee of RM1 per visit in public health clinics, the cost recovery for the treatment is very minimal.

The public sector delivery system subsidizes nearly 95% of the patients' cost of treatment for nearly 90% of the population that has access to some form of healthcare (MoH, 2013). Due to the highly-subsidized healthcare expenditure in Malaysia, there have been increasing demands to control the rising healthcare costs in order to guarantee upcoming healthcare financial support in the future. Although the estimation by the Malaysian Health Accounts (MNHA) showed that there is an increase in Malaysian out-of-pocket (OOP) spending, the highly-subsidized government healthcare protects and supports in the people-at-risk population group which relies heavily on government health services which are charged minimal fees. As subsidized healthcare facilities become further enhanced with better-furnished amenities, the researchers foresee most Malaysians including those in the high-income groups taking advantage of public healthcare services. This would crowd out the lower-income patients, who cannot afford higher healthcare costs in the private sector and have no choice but to endure long queues in seeking treatment in government-subsidized healthcare facilities.

According to the MNHA (2009), the total health expenditure (TEH) for Malaysia in 1997 was RM8, 045 million which increased drastically to RM33, 691 million in 2009. The amount spent on healthcare in the Gross Domestic Product (GDP) from 1997 to 2009 also increased from 2.85% to 4.96% with a corresponding growth in per capita spending on health ranging from RM370 (USD119) in 1997 to RM1208 (USD387) in 2009 (Malaysia National Health Account, 2009).

Meanwhile, according to the Pharmaceutical Services Division (2009) Annual Report, the Malaysia Ministry of Health drug expenditure went up to RM1.402 billion in 2009. Therefore, the implementation of new financing mechanisms must be critically considered to ensure that the government is able to channel the limited subsidy to those who need it the most. The new financing mechanism would also be significant to ensure that the lower income patients will have the access to subsidized healthcare facilities and are not crowded out by those who could afford to go to private healthcare. Thus, the lower-income patients will receive more subsidies than the higher-income patients at public healthcare facilities.

3. Purpose of the Study

The purpose of this study is to examine the health and financial status of selected residents in Shah Alam, a suburb in Malaysia, to analyse the acceptance of MSA and determine the level of willingness to pay (WTP) for MSA. The research findings are expected to facilitate and improve the model of health financing mechanism as a complementary approach to the existing healthcare system.

4. Medical Saving Account (MSA)

The MSA is a concept where individuals are responsible for covering their own medical costs. This model has emerged in response to concerns of escalating healthcare costs particularly in Singapore, China, the United States, South Africa and China over the last 20 years (McLeod & McIntyre, 2010). The appeal of enlisting consumers in reducing costs as well as mobilizing additional funds for healthcare led to implementation of this mechanism in those countries. Minimizing issues related to inefficiency like moral hazards, increasing healthcare costs, gaps in medical coverage and adverse selection are the other aims of MSA implementation (Hanvoravongchai, 2002). Glied (2008) concluded that this approach (implementation of MSAs) provides cost-savings from 10% to 25%.

According to Brimacombe, Antunes, McIntyre (2001), an objective of MSAs is to encourage individuals, families and low-income patients create medical savings accounts in an economical fashion. A medical savings account can be defined as:

- 1) An incentive to use fewer services and encourage them to shop around with their MSA funds, whereby a sum of money may be set aside for the payment of future medical expenses and participants are covered by a high deductible health plan
- 2) A plan under which a sum of money can be set aside and which, in part, is used to pay for a health insurance policy with a high deductible and the remaining fund to pay medical expenses (up to the deductible amount), or to retain the balance, if any, for future use or savings
- 3) A plan with other variables included in addition to or in combination with features included in (1) or (2).

According to Jost (2015), MSAs are generally defined by two elements which are single or family savings account and the second is a supplementary for insurance plan with high deductible for catastrophic healthcare spending. In the first element of single or family account, the medical bills are paid by contribution from a combination of individual, employers or government, while, for the second element of supplementary insurance plan, the premiums may come from the saving account.

However, the first component may have limitations on the certain types of healthcare services to be covered with possibly high deductible or copayments. The concern is whether the government will offer the subsidies in the case of insufficient savings in the account or the outcome if there are excess funds in the individual saving account (Thomson & Mossialos, 2008).

4.1 MSA in other countries

With reference to Singapore, the first country that introduced compulsory medical saving in 1984 (Martin, 2013), the philosophy is to encourage each family member to be responsible for their healthcare spending. However, the MSA in Singapore which is called Medisave only allows risk pooling among immediate family members (spouse, children, parents and grandparents (Barr, 2011) and the surviving family members can inherit the balance in the account at the death of any member (Martin, 2013). In contrast with the existing health financing plan which allows risk pooling among individuals or so called cross-subsidization, Medisave is administered by the Central Provident Fund (CPF) Board which requires both employee and employer to contribute a proportion of their monthly income. This contribution scheme depends on the age of employee, and the funds will later be channeled into three other accounts; Ordinary account, Special account and Medisave account (Barr, 2001). In order to secure the savings, the CPF board has ruled out a certain minimum amount to be retained in the account and the contributors are not allowed to withdraw the full amount upon retirement age (Singapore, Central Provident Fund Board, 2003).

As compared to other developed countries, Singapore is claimed to be a success in healthcare cost containment and producing a better health outcome (Martin, 2013). Even though this medical saving account is only a small element in the overall health financing system in Singapore which accounts for about 10% of its total health expenditure, Hsiao reported in previous article on 1995, the success might be due to its distinctive Medisave account.

5. Research Method

In this study, data collection was conducted by distributing 31 questionnaires as a pilot test to randomly selected respondents from Shah Alam, a suburb in Malaysia. The questionnaire was adapted from previous study by Yasmin Almuallim, 2013 on her research paper titled “Factors Influencing Support for National Health Insurance among Patients Attending Specialist Clinics in Malaysia”. Some of the instrument items were slightly amended and was validated by the expert in the related field of study. The questionnaire consists of five sections which are Section A is describing Demographic Profile of Respondent, Section B is Household Expenses, Section C is Health Status, Section D is Financial Status, and Section E is an agreement on Medical Saving Account. The completed data was analyzed by using SPSS version 20.

6. Findings

Table 1 describes the demographic profile of the respondents. The majority were female (77.4%), Malay (96.8%), with high educational level (93.5%), mean age of 32 years with a mean income of RM2445.20. More than half of the respondents were single (67.7%) and worked in the public sector (51.6%). Most of the respondents had a good financial status (100%), no history of hospitalization

(90.3%), no private insurance (51.8%) and no other healthcare plan (71.0%). For those who owned private insurance, the average monthly contribution was RM266.30.

Table 1. Description of the respondents' profile (n=31)

	Characteristic	n(%)	Mean (SD)
Gender	Male	7(22.6)	
	Female	24(77.4)	
Age (Years)			31.97(10.45)
Ethnicity	Malays	30(96.8)	
	Non Malays	1(3.2)	
Educational level	Low	2(6.5)	
	High	29(93.5)	
Income			RM2445.16(2073.62)
Marital Status	Single	21(67.7)	
	Married	10(32.3)	
Occupation	Unemployed	0(0)	
	Self -employed	12(38.7)	
	Private Sector	3(9.7)	
	Public Sector	16(51.6)	
Financial Status	Poor	0(0)	
	Good	100(0)	
History of hospitalization	Yes	3(9.7)	
	No	28(90.3)	
Private Insurance	Yes	15(48.4)	RM266.30 (Monthly premium)
	No	16(51.6)	
Other healthcare plan	Yes	9(29.0)	
	No	22(71.0)	

Three major expenditures for the respondents were food, health and medicines, and clothing with an average expenditure of RM1713.20. The budget spent on health was on average RM176.80 since the respondents (and their family members) were reported to have good health status with no serious diseases diagnosed. For minor illnesses, the most prevalent illnesses among respondents and family

members reported based on the previous six months was cough (41.9%), followed by fever (38.7%), wounds (19.4%), toothache (12.9%) and diarrhoea (12.9%).

Table 2. Household Expenses

Aspect	n(%)	Spending (Mean)	Spending on health
Food	31(100)		
Education	6(19.4)		
Health and medicine	17(54.8)		
Housing and construction	7(22.6)		
land	0(0)	RM1713.20	RM176.80
access to drinking water	5(16.1)		
clothing	16(51.6)		
ceremonies	1(3.2)		
Others	5(16.1)		

Most of the respondents paid for their treatments using their savings (64.4%), paid by family members (32.3%) and others (32.3%). Average spending on drugs was RM210.90. The findings also reported that the majority of the respondents have a good financial status, with most of the responses indicating that they always had money to pay for the treatments both for minor or serious illnesses. This might be due to the highly subsidized Malaysian healthcare system accessible to the whole population.

Table 3. Mode of payment

Mode of payment	n(%)	Spent on drugs (RM)
Savings	20(64.5)	
Loans	0(0)	
Money Lender	0(0)	
Paid By Family	10(32.3)	
Selling Goods	1(3.2)	RM210.90
Credit Of A Saving	1(3.2)	
Selling Of Labour	1(3.2)	
Traditional Loan System	0(0)	
Selling Livestock	0(0)	
Others	10(32.3)	

None of the factors studied shows any significant association, ($p > 0.05$) with the acceptance towards MSA implementation. However, due to the small number of respondents, the results might not represent the true situation. Based on the findings, females reported a higher acceptance than males. Malay, high education, salaried employee, low family income ($< \text{RM}2445.16$), single marital status, those with no private insurance and those aged 32 and below reported a higher acceptance from the MSA. The median willingness to pay is RM72.30.

Table 4. Bivariate Analysis

Factors	Yes	No	χ^2	p value
Gender				
Male	5	2	0.39	0.53
Female	14	10		
Age				
≤32	12	8	0.04	0.84
>32	7	4		
Race				
Malay	19	11	1.64	0.20
(Non-Malays)	0	1		
Educational Level				
Low Education	1	1	0.12	0.74
High Education	18	11		
Occupational				
Self-employed	7	5	0.07	0.79
Salaried employee	12	7		
Family income				
≥ RM 2445.16	5	5	0.79	0.37
(< RM 2445.16)	14	7		
Marital status				
Single	12	9	0.47	0.49
Married	7	3		
History of hospitalization				
Yes	2	1	0.04	0.84
No	17	11		
Private Insurance				
Yes	8	7	0.78	0.38
No	11	5		

7. Discussion

The current study was conducted with aim of analyzing the acceptance of Medical Saving Account (MSA) as financing mechanism model in alleviating healthcare cost among Shah Alam residents. In Malaysia where healthcare services are highly subsidized and funded through taxation, it is vital to evaluate the support from its public before implementing healthcare reforms. In this study, health and medicines were shown to be one of major expenses of the respondents for their household expenses with total of 54.8% compared to clothing (51.6%) and education (19.4%). As the majority of the respondents had no private insurance (51.8%) and no other health care plan (71.0%), most of them paid for their treatments using their savings (64.4%) while the rest was paid by family members (32.3%) and others (32.3%) with an average spent on drugs alone coming to RM210.90.

This indicated that patients paid for the treatments and drugs through out-of-pocket payment (OOP). However, the trend of OOP may possibly lead to financial burden especially for middle and lower income individuals as they have to face financial hardship as the results of direct payment (Lee & Shaw, 2014). High levels of OOP expenditure among Malaysians is a good indicator of the potential of the implementation of MSA in Malaysia as the major objective of the proposed plan is to reduce healthcare costs as well as OOP expenditures. Nevertheless, none of the factors studied shows a

significant association ($p>0.05$) with the acceptance towards MSA implementation thus indicating that individual willingness to contribute in the new proposed plan is not necessarily based on his or her income. Education and promotion through various mediums are vital for the government to gain public understanding on the purpose of such policies, and the extent to which the policies may benefit the citizens.

8. Conclusion

In an effort to develop a comprehensive complementary model for the existing financing mechanism, the benefits of MSA need to be seriously considered especially with a view to closing the gaps between the current systems as well as improving the mechanism model or revising the proposed scheme. The proposed health financing mechanism and its benefits must be absolutely convincing, then the population will be ready to accept and willing to participate. However, concern should also be given to issues of feasibility of the implementation of the MSA in those countries with a high unemployment rate and low average income in order to secure a consistent monthly contribution into the proposed saving accounts.

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References

- Akma, S. N., Ahmad, S. E., Puteh, W., & Azimatun, N. A. (2014). Willingness to pay for drugs in future national health financing scheme among Malaysian population. *World Applied Sciences Journal*, 30(3), 271-278.
- Brimacombe G.G, Antunes P., McIntyre J. (2001). The future cost of health care in Canada, 2000 to 2020: Balancing Affordability and Sustainability. Ottawa: *Conference Board of Canada*.
- Fronstin, P. (2014). Health Savings Accounts and Health Reimbursement Arrangements: Assets, Account Balances, and Rollovers, 2006–2013. *A monthly research report from the EBRI Education and Research Fund* © 2014 *Employee Benefit Research Institute*
- Glied, S.(2008). ‘Health savings accounts in the United States,’ *Euro Observer* 10(4), pp.5-6
- Hanvoravongchai, P. (2002). ‘Medical savings accounts: lessons learned from international experience,’ EIP/HFS/PHF Discussion Paper No. 52. Geneva: *World Health Organization*.
- Hong T.C. & Chee H.C. (2012). Financing Universal Coverage in Malaysia: a case study. *BMC Public Health* 12(Suppl 1):S7
- Hsiao WC (1995). Peer Review: Medical Savings Accounts: Lessons From Singapore . *Health Affairs* 14, no.2:260-266
- Hurley J. (2002). ‘Medical Savings Accounts: Approach With Caution’. *Journal of Health Services Research Policy*, 5(3), pp.130-132
- Jost, T.S. (2005). ‘Consumer-Driven Health Care in South Africa: Lessons from Comparative Health Policy Studies,’ *Journal of Health & Biomedical Law*, 1(2), pp.83-109
- Leng C.H. (2008). Ownership, control, and contention: Challenges for the future of healthcare in Malaysia. *Social Science & Medicine* 66: 2145-2156.
- Maimunah A.H (2010). 1Care for 1Malaysia: Restructuring The Malaysian Health System. *10th Malaysia Health Malaysia National Health Account (MNHA) (2009)*.

- Martin (2013). Medical savings accounts: Singapore's non-solution to healthcare costs. *BMJ* 2013;347:f4797
- Mazura, M., Ramli, Z., Zulkarnain, A.K., Nazhiyah, H., Zurriyati, Y., Roslinah, A. (2011). Research Highlight: How much does primary care cost? *Institute for Health System Research*, Kuala Lumpur.
- McLeod, H. & McIntyre, D.(2008). 'Medical savings accounts in South Africa.' *Euro Observer*, 10(4), pp.7-9
- Ministry of Finance Malaysia. (2011): The 2012 Budget Speech. *Ministry of Finance Malaysia*, Putrajaya.
- Najib Razak. (2010). Rationalising subsidies for Malaysia's future. *Laman Web Rasmi Najib Razak, Perdana Menteri Malaysia*. Retrieved on 5 March 2014.
- Pharmaceutical Services Division. (2005). *Annual Report*. Kuala Lumpur, Malaysia: Malaysian Ministry of Health.
- Pharmaceutical Services Division.(2009). Annual Report. Malaysia Ministry of Health Drug Expenditure. *Plan Conference*.
- Roemer MI (1991). National health systems of the world, volume 1. New York, Oxford University Press.
- The National Mission, Ninth Malaysia Plan 2006-2010. Retrieved at www.parlimen.gov.my. Jan 2016.
- Thomson, S. & Mossialos, E. (2008). 'Medical Savings Accounts: Can They Improve Health System Performance in Europe?' *Euro Observer* 10(4), pp.1-4
- World Health Organization, (2009). Technical Briefs for Policy-Makers. Achieving Universal Health Coverage: Developing Health Financing Systems. *World Health Organization*, Geneva.
- Yu, C.P, Whynes D.K. & Sach T.H. (2008). Equity in healthcare financing: the case of Malaysia. *International Journal for Equity in Health*. 7(15) OpenURL