

# (Applying Medical Saving Account (MSA) as a Financing Mechanism Model in Alleviating Healthcare Cost: A Review of Literature)

[Siti Nurul Akma Binti Ahmad, Sharifa Ezat Wan Puteh, Mohamad Shahril Bin Mohamad Besir, Nor Azmaniza Binti Azizam]

**Abstract**— Healthcare reforms in sustaining the best healthcare financing are the most common debating issues in both developed and developing countries. Policy maker and researchers keep analyzing and experimenting an innovative financing mechanism in order to mobilize resources for sustainable long term healthcare spending. Among other financing mechanism, Medical Saving Account (MSA) is one of the strategies being assessed in ensuring the efficiency issues especially in cost containment as well as in reducing healthcare cost. Due to failure of realizing the large-scale healthcare reform, MSA are proposed in conjunction with high-deductibles health insurance which it could be as a substitute of healthcare reforms. Due to highly subsidized health care expenditures especially in public health care facilities, some developing countries will be overwhelmed with extremely increased health care cost in the future. In other words, if this practice is not improved and monitored, the subsidy fund would deplete. The Medical Saving Account (MSA) model shall be considered as contributing elements in ensuring sustainability of government subsidy in health care facility and enhancing the sources of government fund to cope with the future health care cost. The aim of this paper is to assess the efficiency of MSA in reducing the healthcare cost by reviewing the rational of few countries which experimenting the MSA. The analyzed results reveals that the MSA model is intended to reduce demand for health services by making individuals financially responsible for their pattern of consumption. MSA theory encourages individuals to spend money more responsibly, especially once they become more educated about the actual price of health services. Furthermore, MSA can be used as tax advantaged vehicles to save for health care expenses in retirement. MSAs intends to address some of the main inefficiencies such as moral hazard, escalating costs, adverse selection, and gaps in medical coverage. Initial schemes showed a decline in total health expenditure.

**Keywords**— Medical Saving Account and Financing Mechanism

## Introduction

Healthcare reforms in sustaining the best healthcare financing are the most common debating issues in both developed and developing countries. Policy maker and researchers keep analyzing and experimenting an innovative financing mechanism in order to mobilize resources for sustainable long term healthcare spending. Among other financing mechanism, Medical Saving Account (MSA) is one of the strategies being assessed in ensuring the efficiency issues especially in cost containment as well as in reducing healthcare cost. Due

to failure of realizing the large-scale healthcare reform, MSA are proposed in conjunction with high-deductibles health

insurance which it could be as a substitute of healthcare reforms<sup>1</sup>. MSA is projected in facilitating of cost control and reducing the issues of moral hazards and its welfare costs. According to Chia & Tsui (2005), MSA has potential positive impacts in cost containment of healthcare spending by providing price sensitive and alternative to consumer to choose the most appropriate and cost-effective care<sup>2</sup>. Even though some economists are skeptical of the efficiency of MSA, there are some others who support the advantages of MSA. The aim of this paper is to assess the efficiency of MSA in reducing the healthcare cost by reviewing the rational of few countries which experimenting the MSA.

## I. MSA in Singapore

As stated by Barr (2001) the philosophy of the Singapore's healthcare financing system is based on individual responsibility<sup>3</sup>. Instead of that, MSA in Singapore integrates the features of family support. Unlike any other financing mechanisms who allow risk pooling across individuals and cross subsidizing, MSA allow a risk pooling concept among family members which includes spouse, children, parents and grandparents<sup>3</sup> and balance account at death is inherited by surviving family members<sup>4</sup>. Therefore, each of family members will be accountable for their healthcare expenses. Among others, Singapore is the first country to implement a nation-wide compulsory medical saving and it is called Medisave<sup>4</sup>. Medisave which implemented in 1984 is administered by the Central Provident Fund (CPF) Board are fully tax exempted. This scheme required every employee and employer to contribute a proportion of their monthly income to the CPF. The proportion rate contributed to CPF is increasing based on employees' age and this contribution will goes into three separate accounts which are Ordinary account, Special account and Medisave account<sup>3</sup>. According to CPF Board, contributors are not allowed to withdraw full

amount of their savings upon retirement at the age of 62, a decreed minimum amount must be keep in the account<sup>5</sup>.

Martin (2013) reported that, Singapore has succeeded in producing a better health outcome as well as managed to contain healthcare cost as compared to any other developed countries<sup>4</sup>. While according to Hsiao (1995) the success of Singapore healthcare system might be due to its distinctive system of healthcare financing which is medical saving account or they call it as Medisave<sup>6</sup>. Although the medical saving account is only a minor component of Singapore's healthcare financing system, and it has accounted for not more than 10% of total health expenditure<sup>7</sup>, however, the Singapore are said to managed their cost containment since the Medisave alone are supplemented by other integrated system including a Medishield which is a catastrophic medical insurance scheme and a means-tested medical expense assistance scheme which is called Medifund<sup>4</sup>. It is supported by the Annual Report of Singapore's Ministry of Health (2001) which stated that about 87% of all hospital in-patients made use of Medisave to pay their hospital bills<sup>1,3</sup>.

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Siti Nurul Akma A./Faculty of Business Management  
University Teknologi MARA  
Malaysia

Sharifa Ezat W. P. (Prof.)/ Faculty of Medicine  
National University of Malaysia Medical Centre  
Malaysia

Shahril M.B / Faculty of Business Management  
University Teknologi MARA  
Malaysia

Nor Azmaniza A. / Faculty of Business Management  
University Teknologi MARA  
Malaysia

## II. MSA in China

China started to implement the MSA in December 1994, which is initially targeted for the urban formal sector employees<sup>9</sup>. MSA or also known as individual saving

account in China is first combined with the other citywide social insurance which is intended to address the issues of problematic insurance scheme<sup>10</sup>. In 1998, healthcare system in China was reform to develop the current framework for China medical insurance system. In this scheme employers and employees will contribute 6% and 2% of their income respectively. The contribution goes to two separate accounts which are 30% of the employee's contribution and all of the employer's contribution is deposited to the individual saving accounts while the remaining amount is deposited to the social insurance funds<sup>10</sup>.

An individual can use their individual savings account to pay for the deductible since the social insurance funds will only cover for medical expenses with a defined deductible up to a set maximum limit. After extended the reforms to 56 other cities across China, almost 60 million of China populations were protected under this new scheme and the pilot scheme evaluation found that there is an increase of 12% likelihood of seeking healthcare care services<sup>10</sup>. It seems that, the increased access for general citizen for high cost inpatient care are due the extension of insurance coverage to all urban employees even though its limit the frequency of care per user<sup>11</sup>. This proposed that the new scheme which a combination of individual saving account and social health insurance are more equitable distribution and enables better cost containment<sup>10</sup>. In term of cost containment, there is an evidence support that the new scheme reduces cost inflation as in Zhenjiang the real health spending per beneficiary reduced by 27%, from 426 RMB yuan in 1994 to 311 RMB yuan in 1995<sup>12,9</sup>. Yip & Hsiao (1997) shows that the total healthcare spending are also declined by 24.6% from 1994 to 1995<sup>9</sup>.

## III. MSA in USA

Meanwhile in USA, medical saving account also known as MediCare is implemented in conjunction with private health insurance with the aim of reducing the numbers of uninsured and healthcare expenditure growth. In 1997, medical saving account legislation was implemented which indicate the eligibility for a medical saving account has been restricted to the self-employed and those employed for a small firms which have less than 50 employees with a condition that they must have health insurance with a deductible of at least US\$1, 500<sup>10</sup>. In 1999, MSA in USA evaluated to decide

whether to extend the program, however, the pilot scheme has been extended to the end of 2002 since the numbers of enrollees reached below the limit set at 750, 000. They managed to achieved only at 50, 000 in 1999. Pauly M, et. al (2000) in their survey revealed that only less than half of their respondents were more likely to recommend medical saving accounts to medium and large scale employers<sup>13</sup>. If all the non-elderly population shifted from fee-for-service and health maintenance organization plans to medical savings account plans, Keeler et. al 1996 simulated the impact of healthcare expenditures with the result would be 6-13% decline in healthcare expenditure<sup>15</sup>. However, most of the assumptions used overstate the cost savings; therefore the results might show lower reduction as low as 2% or less.

In USA, medical savings accounts only target for non-catastrophic costs whereas data shows that inpatient services are likely to be covered by insurance and not to be paid from the individual medical savings account. Therefore, the projected cost savings under medical savings accounts due to reduced utilization are unlikely to be fully realized<sup>16</sup>.

## Conclusions

The lacking of evidence on the advantages of MSA need to be address perhaps by improving the model of its mechanism or revising the proposed scheme in order to produce more comprehensive model to support the existing healthcare financing. Each and every country might have a different need or issues to be address, therefore it is suggested, the new proposed mechanism should be more innovative and modifiable to best suit each needs. Even most published theoretical studies trying to support the advantages of MSA implementation, others have to agree that MSA are not likely feasible for any countries with high unemployment rate and low average income since this scheme require a consistent saving account to cater for the healthcare fund.

## Implications for school of business management

- (1) Future research should focus on reviewing national health policy for respective countries
- (2) There is a need to investigate the efficiencies of each financing mechanism by having a standardize measures

## References

- (1) Pauly, M.V., Goodman, J.C., 1995a. Tax credits for health insurance and medical savings accounts. *Health Affairs*. 14 (1), 125–139.
- (2) Ngee-Choon Chia , Albert K.C. Tsui, 2005. Medical savings accounts in Singapore: how much is adequate? *Journal of Health Economics* 24 (2005) 855–875.
- (3) Barr, M.D., 2001. Medical savings accounts in Singapore: a critical inquiry. *Journal of Health Politics, Policy and Law* 26 (4), 709–726.
- (4) Martin McKee, 2013. Medical savings accounts: Singapore's non-solution to healthcare costs One small part of a complex patchwork of funding. *BMJ* ;347:f4797.
- (5) Singapore, Central Provident Fund Board. CPF Annual Report, 2003.
- (6) Hsiao WC. Medical savings accounts: lessons from Singapore. *Health Aff (Millwood)* 1995;14:260-6; discussion 77-9.
- (7) Haseltine WA. Affordable excellence: the Singapore healthcare story. Brookings Institution Press, 2013.
- (8) Ministry of Health (MOH) Singapore Annual Report, 2001
- (9) Yip, W.C. & Hsiao, W.C., 1997. Medical savings accounts: lessons from China. *Health Affairs* 16 (6), 244–251.
- (10) Dixon, A. 2002. Are Medical Savings Accounts a Viable Option for Funding Health Care? *Croat Med J* ;43:408-416
- (11) Liu GG, Cai R, Zhao Z, Yuen P, Xiong X, Chao S, et al. 1999. Urban health care reform initiative in China: findings from its pilot experiment in Zhengjiang City. *International Journal of Economic Development*;1:504-25.
- (12) Zhenjiang Social Insurance Bureau, Report on Evaluation of the Zhenjiang Health Insurance Experiments (City of Zhenjiang, 1996).

- (13) Pauly M, Percy A, Rosenbloom JS, Shih D. What benefit specialists think about medical savings account options for large firms. *Benefits Q* 2000;16:39-46.
- (14) Winnie C. Yip and William C. Hsiao. (1997). *Medical Savings Accounts: Lessons From China*. Health Affairs.
- (15) Keeler EB, Malkin JD, Goldman DP, Buchanan JL. Can medical savings accounts for the nonelderly reduce health care costs? *JAMA* 1996;275:1666-71
- (16) Moon M, Nichols LM, Wall S. *Medical savings accounts: a policy analysis*. The Urban Institute 1996. Available from: [www.urban.org/pubs/HINSURE/medical\\_savings\\_account.htm](http://www.urban.org/pubs/HINSURE/medical_savings_account.htm). Accessed: June 11, 2000.