Medical Savings Account: Implications for consumer choice, individual responsibility and efficiency

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ABSTRACT

Context: The idea of Medical Savings Account (MSA) was conceived with the objectives to reduce moral hazard, decrease cost of health care, enhance individual responsibility and improve efficiency. However, it is important to note that no implementation of an MSA healthcare policy framework has been perfect. **Aims:** This paper looks at the broader context of current health policies in different countries and analyzes the reasons why MSAs were incorporated into action and the effects of these implementations. **Methods and Material:** Secondary literature review was done to analyse the theoretical and empirical evidence with respect to MSAs. **Results:** Conceptually, MSAs can help eliminate the unnecessary overuse of healthcare by placing more of the financial burden onto the consumer, whereby encouraging individual responsibility. However, for true choice to be provided there needs to be an excess capacity in the system and, in addition, a workforce that is responsive to the diversity of patient's wishes. From an economic perspective, the notion that MSA has an instrumental value in achieving an optimum allocation of resources is based on the standard economic theory of markets with its assumptions which do not always hold true in the real world. Hence, efficiency may be compromised by giving 'voice' to choice. **Conclusions:** There are drawbacks with all financing systems of healthcare, and MSAs are no exception. Future researchers should consider conducting further studies to see if quality and access to necessary healthcare has improved within an MSA system and if adding supply-side regulations in conjunction with an MSA system produces better results than each would individually.

Key words: Medical Saving Account (MSA); efficiency, consumer choice

Key Messages: MSAs increase consumer choice through delegating power to the patient in choosing types of services and physicians. However, the benefits of choice must ultimately be weighed against its costs. Hence, efficiency may be compromised by giving choice to consumer.

INTRODUCTION

In the context of increasing national health expenditure, market oriented reforms, the WHO's focus on responsiveness of health systems, and the libertarian notion of consumer sovereignty, the innovative and experimental idea of the Medical Savings Account (MSA) emerged. The objectives of MSAs though context-specific; broadly tried to address one or more of these issues: 1) reduce moral hazard, 2) decrease healthcare costs, 3) enhance individual responsibility and 4) improve efficiency. MSA was propagated, as the solution to the inherent problems of healthcare industries worldwide that tax payers will have to bear.

MSAs are saving accounts that are earmarked specifically for health needs, which usually have an attached high deductible and low premium catastrophic insurance plan (Backup financial mechanism). MSA formats vary between countries in terms of who and what is covered (compulsory/optional), limitations on deposit amounts and tax-deductible benefits. For example, MSAs are voluntary in the United States and South Africa, but are

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compulsory in Singapore. There are additional differences in MSA schemes such as the catastrophic insurance is compulsory in the U.S. or voluntary in Singapore. Additionally, MSAs and catastrophic insurance plans can be wholly or partly funded through public or private means.

The goal of an MSA is inter-temporal risk pooling. The rationale of this strategy is that if people invest money into an MSA when they are healthy and economically most productive, then they would be left with these self-created funds during sickness.[1]

From merely engaging in theoretical discussion, (i.e. Canada), to breaking the barrier of experimentation (i.e. U.S.), and to implementing the policy of MSAs for over 20 years (i.e. Singapore), the global community has desired increase in choice and quality of healthcare and also reduce associated costs. It is important to note, however, that no implementation of an MSA healthcare policy has been perfect since "healthcare systems are complicated: successes are often multi-factorial".[2] The concepts of choice, individual responsibility and efficiency will be argued for and against the system of MSAs across various countries where different stages of the MSA system have been piloted or implemented. This article looks into the broader context of current health policy in different countries and analyzes the reasons why MSAs were incorporated into action and the outcomes of these implementations.

SUBJECTS AND METHODS

This paper discusses the variables of efficiency, consumer choice and individual responsibility with respect to MSAs. These variables are intra and inter-linked with the social, political, cultural contexts, specific policy goals and mechanisms of implementation among the various countries where MSAs have existed. Through secondary literature review, an analysis was made to present the theoretical and empirical evidence to substantiate the arguments in this paper. Country-specific references are made as and where appropriate.

RESULTS AND DISCUSSION

Theoretical Arguments

Efficiency and MSA

Theoretically, the concept of allocative efficiency is met wherein further allocation of resources will not make one better off without making the other worse off. Practically this occurs when services match the need. However, 'needs' are different from 'wants' and in the context of MSAs, it seems that the 'wants' are being matched with the services. This does not produce an optimal efficiency, although subjectively, it may be providing the highest utility to an individual.

Markets encourage efficiency by relying on consumers to make informed choices. In assessing efficiency, two relevant aspects include:

1. Attainment of a given level of risk protection against healthcare contingencies and its provision to the population at the lowest possible use of resources.
2. Use of efficient tools in the provision of healthcare and risk protection.[3]

The RAND Health Insurance experiment (HIE) suggests that cost sharing (for which MSA is an instrument) would help decrease costs. However, the RAND HIE also found that patients are equally likely to forgo both effective medical services and less effective care in the presence of cost sharing.[4] Preventive services may be neglected in the interests of cost savings by some individuals, which could lead to increased costs in the future to treat worsened conditions.[5]

Early reports suggest that MSAs are associated with lower costs and smaller cost increases.[6] However, it is difficult to determine whether these occurred due to the introduction of MSAs or from simultaneous supply side interventions. Ozanne (1996) found reduction in medical spending between 2–8% in the U. S Medicare population,[7] but it should be noted that cost savings do not necessarily equate to efficiency. Only long-term MSA studies are able to decipher true societal cost savings.

Where MSAs are voluntary, Sheils (1995) points out 'rational' consumers will choose between MSAs and traditional insurance schemes depending on their financial benefits.[8] Another complication is the tax benefit associated with MSAs, which partially offsets the cost sharing effect of MSAs by indirectly giving a return on the money invested into such accounts. Forget *et al.* (2002) suggest that MSAs would actually significantly increase government expenditure on healthcare with most of this spending going to the healthiest people.[9]

MSAs in theory are able to instill competitive discipline onto healthcare providers. As the money follows the patient, it will encourage providers to provide high-quality services efficiently. Moreover, if providers are free to develop

more effective services, then competition can provide a sustained impetus to improve care. Consumers, however, may interpret quality and efficiency very differently and demand accordingly. It is possible that consumers having accumulated a reasonable amount of money in their MSAs and having no other option to spend it elsewhere, may indulge in demand for high technology and sometimes unnecessary services. This 'moral hazard creep' defeats one of the objectives for which MSAs were created.

Monheit (2003) suggests that MSAs may lead to reduced utilization of only few services.[10] This is supported by evidence from RAND HIE, which suggests that cost sharing is effective in reducing visits to a physician but less effective on the visit cost.[11] Additionally, patients will not have financial incentive to curb medical spending once their catastrophic insurance starts.[12] This supplemental financial backup system (which is usually part of the model) introduces an element of risk pooling. This leads to problems with risk pooling such as cream skimming, adverse selection and moral hazard. The theoretical argument supporting efficiency is that individuals are able to ration their healthcare. This is true provided the amount of the service or commodity required is known. But given the unpredictable nature of health, individuals cannot decide on rationing.

The other argument supporting efficiency is that more private funds are drawn into the healthcare financing system which increases the state's ability to invest in cost effective preventive and primary healthcare programmes. MSAs, by directing demand to private facilities, would increase price of some professional services and in future increase supply of these professionals. This argument is based on the traditional economic model of supply and demand. However, this model is based on assumptions that do not apply to the healthcare market. For example, the healthcare market is monopolistic due to entry barriers. Also, consumers do not have adequate information to make preferences. On the other hand, this may lead to an effect on labour market wherein providers may shift from the government to the private sector due to increased demand and price. This may cause a shortage of doctors in public hospitals, which would affect quality of services and efficiency.

Consumer choice and efficiency

People have a natural tendency to abuse a public service like healthcare insurance and social security. This privilege misuse leads to overuse of resources, market inefficiency with social cost exceeding social benefit and moral hazard. The argument in favour of unrestricted choice is that individuals, if well informed, can select the services that are best for them.[14] Theoretically, choice may be the necessary precondition for different wants to be satisfied by creating a better match between demand and supply. Moreover, lack of choices is psychologically associated with reduced motivation and a decreased sense of well being. Therefore, individuals will better enjoy goods and services they consume if they get to choose them. From a market perspective, encouraging choice can lead to better value by having competing suppliers drive the market price downward.[15]

However, the notion of bounded rationality[16] describes people's restricted information-processing capacities and incomplete knowledge of the world. In contrast to economic thinking, Schwartz (2000) claims "aspiration to self-determination, presumably through processes resembling those of rational choice, is a mistake, both as an empirical description of how people act and as a normative ideal".[17] Therefore, choice without proper information is futile.

MSAs may possibly reduce social welfare: 1) if by allowing some to exercise choice, it reduces the utility of others (negative consumption externality) without those same choices, 2) if the choices that some make has an adverse effect on others and 3) if the societal costs of providing choice outweigh the benefits.[15] When spillovers from choices of one group negatively affect others then selection bias, cream skimming, and death spiral occurs. However, insurers administering catastrophic policies could possibly get better prices from providers and transfer this advantage to consumers.[18] Hence, there is a theoretical potential of benefits outweighing the costs of choice, where MSAs are coupled with catastrophic insurance policies.

Individual responsibility and efficiency

MSAs aim to put more control of healthcare spending into the hands of individual consumers by enabling them to 'purchase' health services directly through the funds held in their own accounts.[19] By having individual consumers take responsibility of the financial consequences of their actions, the idea is that costs are controlled and services are more likely to be provided in line with consumer preferences.[20,2] This would also provide incentive to consumers to invest more in their health information. Therefore, the consumer acts both as an agent seeking quality of care and also as a financial agent.[21] This should support the aim of more

appropriate care and potentially more efficient use of resources.

Personal responsibility is enhanced, as the consumer is encouraged to choose a provider and types of services. Individual responsibility in MSAs is closely linked to how consumers use and process the necessary information to make responsible choices. These choices are based on understanding the qualitative differences and the nature of the choices. However, the choices an individual makes are limited by the quantity and quality of information. Also, consumers are not trained to process medical information in an appropriate manner to make "wise" choices.

Beattie and colleagues (1994) demonstrated that when consumers are faced with difficult decisions such as medical ones, they actually prefer to relinquish their freedom to choose.[22] This power of choice is transferred to their healthcare provider. Whether the provider acts in the consumer's interest or self-interest is difficult to judge and directly affects matters of cost and efficiency.

MSAs force individuals, especially the young, to anticipate future healthcare needs and accumulate reserves for future.[23] Therefore, the young subsidize themselves over time. This leads to intra-generational risk pooling rather than inter-generational. Since the consumer controls the use of the money in the MSA, it would act as an incentive to discipline the consumer to plan ahead and be aware of medical needs. However, in light of the unpredictable nature of health, future planning for medical needs is restricted.

With a MSA, the consumer is able to decide where and how their money is spent concerning basic healthcare needs. Since the balance of the account essentially is returned to the consumer, they are able to reap economic benefits from a health plan that they control.[24] Another potential advantage is that services such as alternative medicine which are not traditionally covered in insurance schemes, could be purchased with a MSA scheme, thereby, prompting individuals to take a broader 'wellness' perspective on their health.

The following section will focus on country-specific studies encompassing simulation experiments and empirical evidence.

Country based case studies

Canada

Canada is a nation with universal health coverage "similar to many current third-party payer health insurance arrangements",[25] which has been discussing to implement MSAs to decrease overuse of resources and to reduce costs, while increasing choice and responsibility. Proponents argue that MSAs tackle drawbacks e.g. long queues, by reducing the utilization of unnecessary health services.[26] However, Byrne and Rathwell (2005) argue MSAs will not necessarily eliminate the supply shortages and the "government-imposed rationing of health services". Moreover, to increase patient choices, there must be an excess of supply in the healthcare industry.[27] Therefore, though MSAs may allow Canadian citizens to move out of their provincial boundaries to receive healthcare, the present health resource constraints of providers and technology may still restrict the choice that is proclaimed by MSA advocates.[27]

The possible net efficiency in allocating resources within an MSA scheme has been tested in simulations. Deber *et al.* did a study using Manitoba Province data that captured "almost every physician and hospital contact" in 1999, which is "broadly representative of Canada".[28] These simulations resulted in higher costs. In Manitoba, 50% of the population took up only 4% of total expenditure, while 26% of all spending was attributed to the sickest 1%.[28] In addition to being inequitable, Hurley (2002) has stressed that by allocating equal amounts of money into MSA accounts for the sick and healthy, the Canadian government would lose money to healthy people who would spend little, and gain nothing from the sick who would spend up to the deductible and end up using their catastrophic insurance.[29] When analyzing these models, there seems to be a total lack of efficiency in allocating the already limited healthcare resources. However, Canadian literature on MSAs has produced simulations that have showed a lot of cost savings using demand side tactics, signifying the variability and limitations of simulations.[2,25] Therefore, one proposed approach is to actually "experiment with [MSAs] right here in [Canada]".[2]

U.S.A

The idea of MSAs was born in the U.S., "to overcome the problems of moral hazard and adverse selection in [its] private health-insurance market," but had a slow uptake at onset.[30] The push for MSAs continued due to the U.S.'s increasing national health expenditure. In 2006, the cost of employer-sponsored health insurance rose 7.7%, which continued the pattern of health insurance premiums, outpacing the increase in American workers' earnings (3.8%) and the overall rate of inflation (3.5%).[31,32]

The U.S. spends over 17.6% of its GDP on healthcare, which in 2009 totalled 2.5 trillion dollars.[33] Being the biggest spenders on healthcare globally, while having around 50.7 million Americans uninsured in 2009,[34] signifies a lack of efficiency. This led to talks regarding fiscal responsibility and various ideas in the attempt to increase the number of insured. MSA was suggested as a potential solution to this crisis and to reduce the number of the uninsured and in 2003, Medicare Modernization Act certified Health Savings Accounts (HSAs).[36] HSAs have three key components: 1) a high-deductible health-insurance plan, 2) a low premium, and 3) a tax-free savings account earmarked for health.[36] Hence, they are similar to the current MSAs operating in countries like Singapore, South Africa and China. Ever since HSAs were offered with less restrictions on eligibility, they have increased enrollment every year, and a census done by America's Health Insurance Plans (AHIP) found that "the number of people covered by health savings accounts/ high-deductible health plans (HSA/HDHPs) totalled 10 million in 2010".[37] Take up has been higher among people in the individual market, partly because they now benefit from tax subsidies and also because deductibles in HSA plans are capped.

The US administration claims that HSAs give power back to the consumer. In the U.S., HSAs offer more choice than preferred provider organizations (PPOs) and health maintenance organizations (HMOs).[36, 38] But this choice comes with a price. However, HSAs do not offer any kind of discount for healthcare consumers. Consumers also lose out on bargaining capability because it is more difficult to negotiate as individuals versus a big purchaser like an insurance company or government. Furthermore, a person has to pay out-of-pocket until they reach their deductible limit. Also, the driving up of competition in both quality and price in the healthcare industry has yet to be seen from this instilled consumer choice. Keeler *et al.* (1996) in a modelling study suggests that MSAs would have little impact on healthcare costs in the U.S.A.[39]

Singapore

The first country to implement MSAs was Singapore. The three 'Ms' of their system are Medisave (compulsory MSA, 1984), MediShield (voluntary catastrophic insurance, 1990), and Medifund (financial cover for those who cannot afford an MSA, 1993).[35] A unique characteristic of this system is that it is constantly evolving and adapting to emerging problems. The experience from Singapore suggests that competition among providers was not based on price but high technology and 'hotel amenities'.[13] The assumption that the "patient is the driving force behind escalating costs" with the provider acting as a neutral entity was seen to be flawed, and in consequence, Singapore introduced supply side measures to control costs that MSAs were not adequately handling.[27,40] Singapore is efficient in allocating resources because its health expenditure has been constant at 3–4% of its GDP.[41] This cost containment from a government perspective was possible and covered most of its citizens. Ever since MSAs were implemented, "the Singaporean government's share of the nation's total healthcare expenditure dropped from about 50% to 20%".[42] Even though responsibility is stressed in Singapore, MSAs "have never accounted for more than 10% of its total [health] spending".[43] The voluntary nature of MediShield and mostly out-of-pocket payments are "inefficient instruments".[3] Only 54% of MSA holders had MediShield in 2005.[3] This is risky for individuals because it is likely that without this insurance, they will not be able to afford the healthcare costs. Singapore is continuing to adapt, but it seems that they will not be able to afford this system as its population ages.[3]

MSA — Market Segmentation and its implications

Introducing MSAs in mixed health systems has received criticisms. If given the option, a higher proportion of young, healthy and wealthy people would leave current systems of government financed healthcare (Canada) or private insurance schemes (U.S.)[44] to gain money from the lower premiums, tax subsidies, and/or other forms of government allotted money from an MSA. However, this cream skimming leaves a segmented system where more sick and poor individuals remain in their former plans and soon face higher premiums.[45] The U.S introduced tax breaks and low premiums to make healthcare affordable[46] but what good will HSAs have for uninsured individuals if they cannot afford to save? HSAs reward people in relation to their income and are "being used disproportionately by high-income individuals" as "tax shelters".[47,48] These regressive tax breaks do not benefit the uninsured, more than half of who already have "no income tax liability". Furthermore, since many of the uninsured are not in a high-enough tax-bracket to truly benefit, there would be a negligible effect on coverage for them.[49] Likewise, only one-third of the Singaporean labor force is subject to taxes, further substantiating the case that MSA tax exemptions are regressive.[3] Therefore, to fight against segmentation this system has to be compulsory. Segmentation of the market is a bigger issue keeping in mind that a small number of sick individuals utilize a large portion of healthcare

(e.g. 5% of Americans account for 55% of healthcare costs).[10] Deber *et al.* (2004) states that employers and government providers will save money by eliminating their role in financing healthcare, but costs to society will probably end up being higher in both the short and long run by "shifting the distribution of costs from the rich and healthy to the poor and unhealthy".[28]

CONCLUSIONS

Any policy decision needs to be assessed by the objectives it hopes to achieve. These policies are also not necessarily underpinned by the standard economic theory of markets.[50] MSAs can increase consumer choice and encourage individual responsibility if the system has excess capacity and workforce responsive to the diversity of patient's wishes. However, the benefits of choice must be weighed against its costs. There is a risk that the benefits enjoyed by some will be at the expense of others.

From an economic perspective, the notion that MSA has an instrumental value in achieving an optimum allocation of resources is based on the standard economic theory of markets with its assumptions. However, people are not always the best judges of their own welfare, do not always behave rationally, and cannot always be certain of the outcome of their choices.[51] Therefore, giving choice a 'voice' may compromise efficiency.

There is no evidence of more rational purchasing through a MSA system. Individual financing fosters fee-for-service payments and makes it harder to regulate quality of provision.[52] Also, there is no evidence that the quality or appropriateness of care increases under MSA plans. Selection biases can make patients who are sicker not be subject to any efficiency-enhancing incentives that derive from cost sharing.

As the money in MSAs is to be spent only on healthcare, it limits the choice of an individual to use that money for food, education and other determinants known to be associated with health status. Studies related to the opportunity cost of investing in MSAs need to be further studied to see the full implications on health. Also, because some of the resources are kept in individual accounts, governments may lose resources contributed by healthy individuals that would have been used for the treatment of the sick. The empirical question is whether this loss is greater or less than the efficiency gains resulting from reductions in inappropriate care.

The costs associated with producing an informed consumer, needs to be taken into account when assessing efficiency. The notion that individuals will have an incentive to adopt healthier lifestyles so as to limit their healthcare expenses is unsupported by any evidence.[53] Culture and embedded norms may be significant in determining the extent to which patients utilize the 'freedom' of choice and exercise individual responsibility through their MSAs. There is a need to conduct longitudinal studies examining costs and outcomes to precisely assess the effect of MSAs on efficiency.

MSAs do emphasize individual responsibility. However, the assumption that increased choice enables consumers to make cost efficient decisions when shopping for health services and drugs is false. In Singapore a compulsory financial advisory service had to be implemented in 1986 because people had "insufficient knowledge concerning the actual prices for inpatient treatments and the various bed classes" and were not able to handle this individual responsibility with the onset of MSAs.[41] Furthermore, Harris Interactive in its survey consisting of 300 U.S. employers found that 195 employers (65%) believed that consumers would "forgo needed healthcare" through a health savings account.[54] Under MSAs people may be more careful with their money, but this does not equate to being more responsible with their health. The delaying of necessary healthcare due to cost has been evident with individuals under High Deductible Health Plans (HDHP).[55,11] Other studies have also showed decreased use of critical medicines with increased costs.[56,57,58]

In the U.S., the push for HSAs to cover more preventive care has been successful, but due to consumer confusion "they cut back on preventive care even when it is fully covered".[54] There is also a lack of available and user-friendly information on quality and costs of healthcare treatments and providers for the consumer.[59,44] Moreover, even with the recent push for more decision-making on the part of the patient, "physicians end up making most decisions about place and type of healthcare services" due to information asymmetry.[44] MSAs cannot alone encourage individual responsibility and reduce costs unless the information asymmetry produced by the healthcare industry is reduced to allow consumers to better utilize their choice.[1] Thus, the emphasis on moral hazard being the culprit to the economic failures of the healthcare industry is overstated.[60] In an effort to fight moral hazard, one commonality with all MSAs is that there are limitations on choice in regards to coverage, which varies between countries. Even though MSAs

increase choice in theory, in practice MSAs have a list of covered services and providers. Furthermore, MSAs would be more effective if they not only focused on just a demand-side approach, but also incorporated regulations on the supply like in Singapore.[40]

Countries are struggling to find ways to reduce national health expenditure and some have seen MSAs as the solution. There are drawbacks with all financing systems of healthcare, and MSAs are no exception. Conceptually, MSAs can help eliminate the unnecessary overuse of healthcare by encouraging individual responsibility. However, this optimistic view has yet to be proven in practice. Even in Singapore, a country named by some as a success story, the government has been forced to keep changing its rules and regulations. Adding to the current literature, future researchers should consider conducting studies to see if: 1) quality and access to necessary healthcare has improved with the MSA system, 2) an extensive computer-database that contains information about prices of all providers will induce consumer cost-efficiency over time within an MSA framework and 3) adding supply-side regulations in conjunction with an MSA system will produce better results than each would individually. These future studies will help policy-makers understand the best ways to incorporate the MSA system into their governments to produce the most ideal results.

For India, MSA as a source of financing health care, would at best be restricted or experimented with the formal sector employment. Unlike the countries in which MSA has been implemented, this comprises a much smaller segment of the overall work force in this country. Since even these countries are struggling to reduce national expenditure even after experimenting with MSA, India needs to be cautious in its approach towards accepting this as an alternative model of health care financing among the organised sector.

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