EXPERIENCE WITH MEDICAL SAVINGS ACCOUNTS IN SELECTED JURISDICTIONS

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This synthesis is the fourth of a series of papers that the Canadian Health Services Research Foundation is producing on the topic of healthcare financing models. It is a companion paper to the third paper in the series, “Medical Savings Accounts in Financing Healthcare,” also written by Raisa B. Deber, PhD. All reports in the series can be found at www.chsrf.ca.
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KEY MESSAGES

- The design of medical savings account (MSA) plans varies considerably within and among jurisdictions.
- The impact of MSAs depends heavily upon how the plan is designed. The design of certain MSAs is likely to increase total costs.
- The U.S. has implemented a number of MSA models, each with its own rules and tax implications. To date, relatively few people have selected such models. Those who have selected MSA models tend to be richer and healthier, perhaps because the models were being used primarily as a savings device and tax shelter.
- In the U.S., some studies found that families would attempt to control costs by delaying or avoiding physician visits. However, families did not feel that they could control costs once the clinical encounter had occurred.
- Being exposed to even modest increases in personal costs did make U.S. consumers more cost-sensitive, but they seemed unable to distinguish between cutting back on necessary versus unnecessary care. Co-payments for needed services yielded worse outcomes, and often generated costs which offset or exceeded the savings from reduced utilization.
- China employs MSAs in some jurisdictions (largely cities) as part of a multi-level system of financing. Where used, the individual-level MSA is the first line of financing. Once those funds have been exhausted, the individual must still pay a deductible out-of-pocket (set at up to 5% of salary), with a pooled social insurance account (paid by employers, at the city level) responsible for financing costs above that level.
- Observers of both the U.S. and Chinese plans suggest that costs for care had increased through loss of bargaining power over providers.
- MSAs are compulsory in Singapore, where they are blended into the social insurance system. About 70% of health expenditures are financed out-of-pocket. Analysts argue that the MSA plan has resulted in higher costs and worse equity.
- South Africa introduced MSAs and, while some analysts were enthusiastic, a Department of Health inquiry soon concluded that MSAs were problematic and should be phased out.
INTRODUCTION

Medical savings accounts (MSAs) refer to a family of financing approaches that use a personal health spending account, often combined with a high-deductible insurance plan, to pay for specified health care services. They already exist in a number of countries, including the U.S., Singapore, South Africa and China, and several reports have urged the use of MSAs in other countries including the U.K., Australia, and Canada. There are considerable differences across plans, in terms of such details as: who can join; whether membership is voluntary; who contributes (employer, employee or both); who owns the funds (employer, employee); levels of deductibles and co-payments; availability and generosity of insurance for costs above the threshold; which services can be purchased with these funds; and whether unused contributions can be carried over to subsequent years. Regardless of these differences, these plans do not usually involve government contributions, except indirectly through the tax system. A number of authors have reviewed international experience with MSAs. Note that the descriptions in this companion paper are based on the materials reviewed, and may accordingly not capture recent changes, should these have occurred.

SINGAPORE

Singapore introduced universal and compulsory MSAs in 1984. They are blended into Singapore’s social insurance system, which includes compulsory savings for a number of activities. The Medisave account was initially intended to cover only acute hospital care in public (government-run) hospitals, but was expanded to include other facilities and other types of services, although still not primary care, long-term hospital care or emergency care. Required contribution levels are high (6–8% of income for all employed workers, plus employer contributions) and the model still requires significant cost-sharing from those using services. The total amount that can be accumulated is also capped, with excess contributions transferred to other mandatory savings plans. Limitations of the MSA approach can be inferred by the subsequent introduction of complementary funds, including limited catastrophic insurance (a voluntary plan, which also imposes limits on claims, both per year and per individual), a supplementary plan to help the poor who cannot pay the high out-of-pocket expenses, and another insurance plan for those who become severely disabled. Although Singapore’s MSAs have received considerable attention, analysts have noted that they account for a very small (less than 10%) proportion of total health expenditure. A further limitation is that those who retired before the plan was set up would not have been able to accumulate savings; authorities note that full implementation will not be achieved until 2030. Instead, most health expenditures (about 70%) are financed out of pocket. Analysts also argue that the MSA plan has resulted in higher costs and worse equity. For additional reading, see the listed references.

CHINA

China has introduced a number of experiments with market-based financing intended to replace the precipitous decline in the former insurance system, particularly for rural farmers. Several of these experiments, largely in cities, have incorporated individual-level MSAs as the first line of financing. Once those funds have been exhausted, the individual must still pay a deductible out of pocket (set at up to 5% of salary), with a pooled social insurance account (paid by employers, at the city level) responsible for financing costs above that level. It is worth noting that these experiments did not reach everyone; more than three-quarters of the Chinese surveyed did not have any health insurance coverage, with coverage particularly poor in rural areas.
Wagstaff et al. summarize some findings about the results of China’s efforts to rely more heavily on market forces to finance healthcare. They note that the story is complex; the Chinese market reforms also introduced perverse incentives for providers and encouraged providers to shift their activities from basic, cost-effective (but less profitable) care to more costly (and often unnecessary) care. There have subsequently been a series of reform measures attempting to provide better insurance coverage to vulnerable populations. For example, some of the benefit packages combine household-level MSAs, which are expected to cover outpatient expenses, with high-deductible social insurance for inpatient care.

Assessments of the success of these reforms are mixed, but generally not favorable to MSAs. In terms of reductions in mortality among children younger than five years of age, China went from being an over-performer in the 1960s and 1970s to an under-performer in the 1980s and 1990s. Although results were less clear, equity was also adversely affected. The share of health spending financed through out-of-pocket payments increased, with an accompanying increase in financial hardship. The percentage of people not seeking care for financial reasons increased from 12% in 1993 to 18% in 2003 and the percentage of the population experiencing catastrophic out-of-pocket spending for health reasons also increased, particularly in rural areas.

The MSA scheme aggravated these problems. Yip and Hsaio found that the less healthy tended to pay more, both in absolute terms and as a proportion of their income, than the healthier. The poor were likely to use up their MSA funds more quickly and to have larger overall out-of-pocket payments. Dong noted that health expenditures in Shanghai increased sharply once MSAs were introduced. Ordinary residents did not benefit; as healthcare became less affordable, disparities in access became more evident. MSAs also shifted emphasis from prevention and primary care to payments for catastrophic disease.

Another similarity to Singapore is that MSAs play a minor role in financing healthcare (estimated at less than 8%), with 70% of healthcare financing being out-of-pocket.

4 SOUTH AFRICA

South Africa introduced MSAs, and while some analysts were enthusiastic, a Department of Health inquiry soon concluded that MSAs were problematic and should be phased out. Reasons included the high administration fees, the undermining of risk-pooling and the failure to achieve cost control.

5 UNITED STATES

The U.S. differs from most developed countries, in that healthcare coverage is not universal. Unlike European countries using private insurance, the U.S. is characterized by limited regulation of benefit packages, coverage requirements, and prices charged by providers, although this may change somewhat if provisions in the newly passed health reform are implemented. One earlier effort to control costs was managed care, but this led to a backlash against perceived rationing of care. More recently, there has been a major shift in the private health insurance industry that has been described as a fundamental change in “its strategic focus, product design, and pricing policy.” Rather than pool risks and attempt to manage costs charged by providers, the industry moved to what has been termed a “consumer focus.” This translated into making more extensive use of deductibles, coinsurance, and co-payments, and incorporating greater variability in what would be included in benefit packages. Robinson notes that “the most-discussed, if least purchased, contemporary innovation in benefit design is a product that combines a high-deductible PPO [preferred provider organization] with an employer-financed but employee-managed and tax-exempt health savings account (HSA), which can be used to pay for services falling
below the deductible.” In these models, the balances can be rolled over and accumulated if not spent. He further notes that this approach rejects risk-pooling; fees paid by those in good health “are retained by healthy enrollees rather than diverted to pay for the care of others ... The overall trend in benefit design now is from fully insured services to services that are partially insured (coverage with co-payment provisions), to noninsured services fully paid by the enrollee but at insurer-negotiated discount prices.” These noninsured services include not only prescription drugs and complementary medical services (e.g. acupuncture, chiropractic), but also an increasing number of physician services. In addition, a number of plans use tiered network designs, where patients are charged different co-payments and deductibles depending on where they choose to be treated.

As noted above, a series of studies has consistently found that utilization was “significantly lower for the measures that might be considered to most reflect choice by the enrollee: emergency room visits, professional encounters, prescription drug use, and, to a lesser degree, x-ray and lab services,” but not for utilization patients can’t control, such as inpatient admissions and intensity of professional encounters. Some studies found that families would attempt to control costs by delaying or avoiding physician visits, but did not feel that they could control costs once the clinical encounter had occurred. Being exposed to even modest increases in personal costs did make consumers more cost-sensitive, but they seemed unable to distinguish between cutting back on necessary versus unnecessary care. Cost-sharing made them more likely to discontinue some classes of prescription drugs and to forgo some preventative care. Emergency department use was found to decrease, particularly for conditions of low or indeterminate severity. Increasing co-payments for ambulatory care among seniors did lead to fewer outpatient visits but resulted in more hospitalizations, particularly for those with lower incomes and those with chronic disease. Again, whether these effects were positive or negative depended on how necessary the services were.

The effect of co-payments appears to be particularly strong for pharmaceuticals. In the U.S., an increase by the Department of Veterans Affairs in co-payments for lipid-lowering medication from $2 to $7 per month significantly decreased adherence, with potentially adverse health consequences, particularly among those at high risk of coronary heart disease. Medicare is a particular US program, and should probably be capped. Medicare drug benefits had similar results; drug consumption was lower, but this was associated with worse clinical outcomes, including control of blood pressure, lipid levels and glucose levels. The authors concluded that “the savings in drug costs from the cap were offset by increases in the costs of hospitalization and emergency department care.” An analysis of managed care formularies found that higher co-payments led to greater discontinuation of medications; for certain sub-groups, including those with congestive heart failure, lipid disorders, diabetes and schizophrenia, there appeared to be increased use of medical services, presumably as a result of adverse health implications of the higher co-payments. Pharmacy benefit caps for retirees with employer-sponsored drug coverage showed similar adverse effects among those with chronic illness. Increasing cost-sharing reduced utilization of prescription drugs, particularly newly-prescribed ones; those already taking the drugs appeared to be less price sensitive. Non-adherence because of cost among dialysis patients in 12 countries was found to be related to out-of-pocket spending, although other factors also mattered. Similar findings occurred for other conditions. Indeed, the new trend towards value-based insurance is calling for removing co-payments for treatments seen as important for maintaining health, while potentially using price signals to discourage use of care that is of marginal value or potentially harmful.

The U.S. has a number of MSA-like options, each with its own rules and tax implications, falling under the rubric of consumer directed health plans. For example, health reimbursement accounts (HRAs) are funded by employers or health plans with pretax dollars. Health savings accounts (HSAs), in contrast, accrue in a tax-sheltered environment. Note that there is also variation in what happens to the funds when an
employee changes health plans or employers; in general, the funds would be forfeited and remain with the employer.\textsuperscript{94} Since the first version was set up in 1996 as a pilot project,\textsuperscript{95} there has been relatively slow growth. In general, the earlier models did not appear to have been particularly popular with potential enrollees, with a number of efforts to analyze the models noting that the initial participation rate was too small to be able to do a comprehensive study. By 2002, an estimated 1.5 million persons were enrolled in these consumer-driven plans—less than 1\% of the employer-coverage market.\textsuperscript{96} In general, MSA plans do not appear popular with those using them.\textsuperscript{97}

Although there have been a number of efforts to assess MSA-type models in the U.S.,\textsuperscript{98--100} most conclude that it is too early to fully assess their impact. There appears to be a consensus that effects are very dependent on plan details.\textsuperscript{71,101,102} Another complication is that most studies have found evidence of risk selection, although the nature of that risk selection also depends on the details of the MSA and of the available alternatives.\textsuperscript{103,104} Those selecting the MSA-type options tended to be richer and healthier,\textsuperscript{105} perhaps because the initial results suggest that these models were being used primarily as a savings device and tax shelter. “In any given year, most taxpayers withdrew less than 60\% of what they contributed, but about one-fifth withdrew at least 90\%.”\textsuperscript{95} An additional complexity is that detecting this risk selection required information about individual claims; efforts to analyze selection only on the basis of age-sex groups often did not find significant variation, reinforcing the conclusions noted in the companion paper about the importance of understanding the distribution of health expenditures.

Although the theory behind consumer-choice models assumes that consumers would be given adequate information to make informed choices—including when they would need to seek professional help vs. when they could self-manage their care, what care they should seek and from whom, and what treatment they should select—evidence that this was available or helpful is sketchy, with most suggesting that this is not occurring.\textsuperscript{94}

Another factor complicating these comparisons is the trend towards higher cost-sharing in standard insurance. Paradoxically, and contrary to the theory behind MSAs, the combination of tax deductions for MSAs coupled with guaranteed catastrophic coverage in some models stood to reduce rather than increase cost-sharing for many Americans whose existing coverage had left them exposed to potentially high medical expenses. For example, Remler and Glied report survey results showing that 21\% of insured workers in non-MSA plans had no out-of-pocket maximum, and more than half (55\%) had an out-of-pocket maximum exceeding $2,000 (including those with no such maximum). There were also sizeable deductibles and co-payments.\textsuperscript{106} This variability in plan details means analyses that (on the surface) reach different conclusions are often comparing apples and oranges. For example, noting that enrollees in MSA plans that exempt preventive services from cost-sharing use such services tells us little about the impact of MSA plans without such exemptions on utilization.

Another factor is that MSA plans have tended to erode the ability to negotiate prices, particularly for drugs. The U.S. Government Accountability Office has noted considerable growth in the costs payable for those drugs that insurers are required to cover; one example they give is Gleevec, where the average negotiated price across the sample of insurance plans studied increased by 46\% between 2006 and 2009 (from $31,200 per year to $45,500 per year).\textsuperscript{107,108}

MSA models remain highly contentious within the U.S., but do not appear to have achieved their desired goals.
REFERENCES


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Liu Y. Reforming China’s urban health insurance system. *Health Policy* 2002 May;60(2):133–150.


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75 Trivedi AN, Moloo H, Mor V. Increased ambulatory care copayments and hospitalizations among the elderly. *NEJM* 2010 Jan 28;362(4):320–328.


100 Ross MN. Consumer-directed health care: It’s not whether the glass is half-empty, but why. *Health Aff* 2006 Oct 24;25(6):w552–w554.


