# Medical Savings Accounts in publicly funded health care systems: enthusiasm versus evidence

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**Abstract** 

MEDICAL SAVINGS ACCOUNTS (MSAs) HAVE BEEN SUGGESTED as a possible solution to Canada's health care funding woes. This approach is intended to reduce demand for health services by making individuals financially responsible for their pattern of consumption. MSAs may have appeal in the private insurance industry. A review of the scant literature on the experience in the public systems of Singapore and China, where such plans have been implemented, and on a simulation using United States Medicare data, suggests that the approach alone has not controlled costs and may increase inequalities in publicly funded systems. The conclusion is that current knowledge of MSAs is too limited to recommend their incorporation into the Canadian health care system.

lleviating acute fiscal duress has dominated discussions of health care system reform in Canada over the last decade, 1,2 and the continuing focus on sustainability suggests that this policy debate is still far from being resolved. One potential solution to the health care funding dilemma that has surfaced recently in Canadian academic 4,5 and political circles 6,7 is the establishment of Medical Savings Accounts (MSAs). This "demand-side" approach is intended to reduce health care consumption and, its proponents argue, will thus enhance the quality of health care and reduce its public cost. This is, indeed, an attractive vision and was reported in a recent Canadian poll to be somewhat or very strongly approved by 50% of the respondents. But does the limited health services literature available support such optimism?

# What are Medical Savings Accounts?

MSAs are generally defined by 2 components: first, a single or family savings account from which routine medical expenses are paid and to which contributions are made by some combination of the individual (usually with tax-exempt funds), employers or government; and second, an accompanying high-deductible insurance plan to cover catastrophic medical expenses, the premiums for which may come from the savings account. The first component may have restrictions on the types of services that can be purchased and may involve, as with other types of insurance, deductibles or copayments. As well, the rules governing MSA plans vary in terms of how surplus funds in personal accounts are used at the end of coverage periods and whether supplementary assistance is provided in the event that expenditures exceed resources. There is also considerable variation in the application of catastrophic insurance, but in most models coverage does not begin until a threshold of expenditures has been reached by the insured individual.

It is assumed that, by holding consumers responsible for the financial consequences of injudicious health care consumption, they will be motivated to seek the best available price and quality of care from competitive suppliers. Such schemes are available in some jurisdictions from insurance companies and have been incorporated into the public health care systems of Singapore and China, and into a pilot simulation in the United States.

#### Review

Synthèse

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ß See related articles pages 143, 151, 152 and 173

## **Medical Savings Accounts in the private sector**

MSAs are provided by private insurance companies in a number of countries. In the United States, companies have offered such plans to individual clients since 1993, but because of the proprietorial nature of the data, relatively little is known of their performance. However, 2 studies have simulated the probable impact of MSAs on the health expenditures of non-elderly people in the United States when compared with conventional insurance instruments. One showed a change in health care expenditures that ranged, according to various assumptions, from a 1% increase to a 2% decrease. The other showed a decrease in spending of 2% to 8% depending on the individual's tax exposure (those with a higher marginal tax rate would have an incentive to spend more on medical care), with the typical change a 2% to 4% decrease. The other shows the spending of the typical change a 2% to 4% decrease.

Surveys of American benefit specialists suggest a tepid response to MSAs in comparison with current health maintenance organization plans, and many respondents identified consumer confusion about the operation of such accounts as the largest obstacle to their proliferation. A recent simulation suggested that, although a slim majority of employees of small businesses might be willing to switch coverage to tax-advantaged MSAs, the extension of coverage to the uninsured would be minimal. The US Health Insurance Portability and Accountability Act of 1996<sup>14</sup> authorized a demonstration of MSAs for the self-employed and workers in small businesses, but this project has yet to be evaluated.

South Africa also has experience with private MSAs. About 80% of its citizens rely on a public system of care that is free at the point of consumption but plagued by long waits and deteriorating quality. Following deregulation of the insurance industry in 1994, 20% of the population purchased private insurance, about half in the form of an MSA. Typically, MSAs in South Africa have no deductible for hospital care or drugs for chronic conditions, both of which are deemed non-discretionary, and a significant deductible for other drugs and outpatient care. Individuals and employers are given tax incentives to contribute. Although it has not been shown that individuals attracted to MSAs are younger and healthier than those who do not buy into them, it is likely that, given the original rules governing the ability of companies to select clients and insure at differential rates, insurers have chosen such comparatively low-risk clients. 15

MSA plan holders are reported to have cut their discretionary spending in half and to not have increased their use of non-discretionary services. Thus, as a vehicle for private health insurance in South Africa, MSAs appear to have worked to the satisfaction of insured and insurers. The impact on the public system is less clear. For example, it is not known how many plan holders meet some of their discretionary needs from the free public system. Moreover, since the plans provide preferred access to services for which there are waits in the public system, they may create a disincentive for service enhancement in the public sector.

Despite data limitations, it appears that in some jurisdictions the operation of MSAs in the private insurance sector may have attractions for both insured and insurer. This experience, however, cannot be assumed to translate into a ready fit in publicly funded health care systems.

## **Lessons from Singapore**

The most established public MSA program is found in Singapore, a city-state with a population of 3.3 million. In 1984 the government established Medisave, a compulsory program to which an amount equivalent to 6%-8% of an employee's pre-tax wages is contributed by the employee and the employer in equal proportions. The plan covers hospital and some expensive outpatient services. Medishield, a high-deductible insurance scheme for catastrophic expenses, was added in 1990, and Medifund, an endowment fund, appeared in 1993 to cover the expenses of indigent people. 16 Although government-subsidized clinics provide some primary care for the poor, most outpatient expenses are born out-of-pocket. In 1995 direct payment by consumers accounted for 57.7% of Singapore's total medical expenditures, whereas MSAs provided only 8.5%.17

By creating cost-conscious health care consumers, it was hoped that MSAs would control costs in the Singapore system. However, per capita health care costs continued to rise after the program was initiated in 1984, driven by the increased use of expensive technology in private hospitals and rising provider charges.<sup>16</sup> In 1993, after recognizing that its demand-side approach could not curb expenditures, the government introduced supply-side controls that restricted the introduction of technology in government hospitals, placed price caps on services delivered in these institutions, imposed predetermined subsidy rates and bed numbers on the hospitals, and tightened controls on the number and specialty mix of physicians. As well, restrictions have been placed on the eligible benefits under the various plans. Medisave funds cannot be used to purchase some types of obstetric care and long-term hospital care, and Medishield will not cover expenses associated with preexisting conditions including stroke, coronary artery disease, chronic obstructive lung disease and cancer.18 It appears that Singapore's MSA program itself has contributed less to cost control than the more recently introduced supply-side tactics.16,18

The failure to control costs through the MSA approach is especially noteworthy, given several characteristics of the Singapore population that might have been expected to assist in minimizing expenditures. The population is comparatively younger than Europe's, and the country has yet to confront the health costs associated with an aging population. Many citizens are immigrants with relatively low expectations of the role of the state in providing health care. An ethos of individual responsibility stands in contrast to the redistributive philosophies of most Western European

societies. <sup>19</sup> Many patients in Singapore turn to traditional Chinese medicine, a type of health care not covered by government plans but one that serves to reduce reliance on Western therapies. <sup>18</sup> Finally, the Singapore economy grew rapidly for 2 decades after the mid-1970s; <sup>20</sup> although the resulting high employment rate ensured that most citizens contributed to MSAs, it left the MSA system vulnerable to the impact of a slowdown in economic growth.

Given the magnitude of out-of-pocket costs borne by individuals, the costs of medical care in Singapore often cannot be met by elderly people, especially elderly widows who were never employed outside the home, and poor people. 17,18 Indeed, the World Health Organization rated the city's system 101st of 191 countries studied for fairness of financing. 21 This below-average equity ranking, coupled with the documented inability of MSAs to justify their primary rationale of cost containment, suggests that the Singapore system undergo closer scrutiny before it is emulated.

# The Chinese experiment

In 1994 China initiated a pilot project in 2 cities with a combined population of 5 million, representing about 1.4% of China's urban inhabitants. Participants financed care from MSAs (to which they contributed 1% of wages and employers contributed 10%), out-of-pocket funds (to cover deductibles for care not covered under MSAs) and catastrophic insurance. As in the case of Singapore, the government recognized that controlling demand alone was inadequate, so it imposed limits on the use of expensive diagnostic procedures and medications and fixed remuneration rates to providers and institutions.<sup>22</sup>

Under this plan outpatient utilization has remained unchanged and hospital admissions have diminished slightly. In one participating community, total health care spending dropped by 24.6% in the year following the introduction of MSAs. However, much of the savings resulted from a reduced use of expensive drugs and technology owing to the simultaneous introduction of a system of prospective fixed payments, cost-sharing with hospitals and high deductables for patients.<sup>22</sup> There is some evidence of increased health services costs for people outside the plan and of a shift of resources from frail to healthy individuals.<sup>22</sup> The latter has occurred in part because of risk selection, but also because healthy participants accumulated unspent assets in their accounts, whereas unhealthy participants exhausted their MSA accounts and had to pay an additional deductible equal to 5% of wages before the plan would cover a portion of excess expenditures.22

Despite this inauspicious beginning, the system was expanded in 1996 to over 50 cities and was scheduled to include all urban areas by 1999. Evaluation of the effect on a city that took part in the second wave of implementation suggested that, although health care costs fell somewhat, the catastrophic coverage operated at a deficit and many employers opted out because of accompanying utilization

restrictions.<sup>23</sup> It must be concluded that the available evidence is as yet too limited to permit a confident evaluation of the Chinese experience with MSAs.

#### **American simulations**

Despite the activities of insurance companies, only 1 large-scale public pilot program for MSAs has been initiated in the United States. In 1997 the Balanced Budget Act provided for a demonstration project of privately furnished MSAs for Medicare beneficiaries, but the project has yet to be evaluated. One study has modelled the effect of introducing MSAs on Medicare expenditures.24 The results varied substantially depending on how consumers were assumed to respond to various financial incentives for buying into and using the program; however, lower program costs were found to be possible only with high out-of-pocket expenditures, and no scenario showed program savings when private carriers were allowed to offer MSAs in place of conventional Medicare. The investigators concluded that the deferral of treatments by patients because of out-of-pocket expenses might subsequently lead to higher overall Medicare expenditures.<sup>24</sup> At least until the demonstration project is rigorously evaluated, no firm conclusion can be drawn of the benefits MSAs may bring to public health care programs in the United States.

# Assessing the effect on publicly funded health care systems

To assess with precision the effect of MSAs on publicly funded health care systems, it would be necessary to conduct longitudinal studies in various jurisdictions that would examine expenditures, utilization patterns, equity issues, patient and provider satisfaction, and health outcomes. Such studies are currently unavailable, forcing decision-makers to rely instead on descriptive reports of existing programs or of simulations. The former are based on administrative data that are usually collected for other purposes and are often incomplete; the latter depend entirely on the modelling assumptions of the investigators.

On the basis of the limited evidence available, MSAs do not appear to achieve their goals in publicly funded systems. The demand-side approach to controlling health care expenditures that MSAs theoretically offer is not effective without the addition of supply-side regulation. As Singapore's experience suggests, MSAs do not contribute to a more equitable distribution of coverage. Existing public health insurance is based on the pooled risk of healthy and sick people. MSAs, especially when coupled with tax advantages, are attractive to the healthy and wealthy, leaving the pooled unwell either to seek higher cost comprehensive insurance or to bear increased out-of-pocket expenses. Finally, there is no evidence that the quality or appropriateness of care increases under MSA plans. Indeed, necessary or preventive services may be

neglected in the interests of cost savings by some individuals, leading to increased costs later to treat worsened conditions.<sup>25</sup> The notion that individuals will have an incentive to adopt healthier lifestyles so as to limit their health care expenses<sup>26</sup> is unsupported by any evidence.

What effect might the introduction of MSAs have on the Canadian health care system? Removing health care dollars from the system by placing them in individual savings accounts, only a portion of which will actually be spent on health care in a given year, will clearly have an adverse effect on a system that is already financially constrained.<sup>27</sup> The health care requirements of the relatively small proportion of the population that currently accounts for a high proportion of health care expenditures will not diminish; there will simply be fewer dollars entering the system with which to meet their needs. The notion that the savings from efficiencies gained by increased provider competition will partially offset the loss of funds sequestered in the accounts of healthy citizens is not plausible. In order to have competition between providers, whether individuals or institutions, there must be excess capacity in the system. The ongoing concern expressed in Canada over physician shortages or long waiting times for many services, for example, suggests that the development of surplus capacity is unlikely in the foreseeable future. As well, it seems improbable that catastrophic insurance will solve the problem of expensive care for the minority of Canadians who require it. Relying on the insurance industry to provide coverage for people with high utilization would prove extremely expensive for those individuals; equally, if coverage were provided by a public source, it would require subsidy by tax revenues, which is exactly what MSAs are intended to avoid. Finally, the introduction of MSAs would challenge a half century of Canadian belief that health care costs are a shared responsibility rather than a burden to be borne by unwell individuals.

In summary, there is a lack of compelling evidence from other jurisdictions that MSAs have realized their objectives. Proposed MSAs should be judged both in the context of the system that they attempt to reform and against the performance of those in other publicly funded health care systems.

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