Singapore Actuarial Society
Annual Report on Healthcare Provision and Financing

Period: 1 January 2006 – 30 June 2007

Medishield Scheme

This is the national medical expense insurance scheme introduced in 1990 for all Singapore citizens and permanent residents, whereby premiums are payable from policyholders' Central Provident Fund (CPF) Medisave accounts.

Private Medical Insurance Scheme (PMIS)

Private insurers were allowed to sell Medishield-approved health insurance plans to CPF members whereby the premiums can be funded from their CPF Medisave accounts. The conditions for these Private Medical Insurance Scheme (PMIS) plans are that they must be guaranteed renewable and they must have co-payment features (e.g. deductible and coinsurance).

The MoH website has updated the list of Medisave-approved integrated plans. The new list of plans is as follows:

- NTUC Income's IncomeShield and Enhanced IncomeShield
  - NTUC Incomeshield
  - NTUC IncomeShield M
  - NTUC Enhanced IncomeShield

- American International Assurance International Co's HealthShield Gold
  - AIA HealthShield Gold
  - AIA HealthShield Gold Prestige

- Great Eastern Life Assurance Co's SupremeHealth and SupremeHealth Plus
  - Great Eastern SupremeHealth
  - Great Eastern SupremeHealth Plus

- Aviva Ltd's MyShield
  - Aviva MyShield

- Prudential Assurance Co's PRUShield
  - Prudential PruShield

The sample policy contracts for the above plans can be obtained at the following URL. This link also provides a comparison of all the above plans.
http://www.moh.gov.sg/mohcorp/hcfinancing.aspx?id=342

The most significant development was the introduction of 'as-charged' plans with no internal sub-limits on the reimbursement of specific categories of medical expenses. Control of abuse is by the application of pro-ration factors if the insured is hospitalized in a ward of a higher class than the one to which his plan is tailored to, and priced for.

Riders Covering Deductibles and Coinsurance Provisions of Private Medical Insurance Scheme Plans

PMIS insurers in the past refrained from covering the medical costs not reimbursed due to the presence of the deductible and coinsurance features. In 2006, a few insurers started to provide riders which cover the deductible and coinsurance portions, hence effectively providing consumers with protection against the entire medical costs. The premiums for such

riders have to be paid with the CPF member's own cash, and could not be funded from the member's CPF Medisave account.

The long-term concern of the introduction of these riders is that there will be far less incentive for consumers or doctors or hospitals to keep the medical costs low since the burden of paying the medical bill had shifted fully to a third party, the insurer, who has no influence in the choice of medical procedures or facilities, which will determine the amount of the medical bill.

Withdrawal of SMA Guidelines of Fees (GoF)

Recently, on 1st April 2007, the Singapore Medical Association announced at its Annual General Meeting that the Association was withdrawing its Guidelines of Fees (GoF) with immediate effect. Continuation of the GoF could have been deemed a breach of the Competitions Act.

The GoF was first introduced in 1987. Its purpose was to provide patients with an indication of the prevailing range of fees charged by doctors and surgeons and therefore allow patients to decide whether they are being charged reasonably for the medical services they require. It also helped doctors with an indication of the rates to charge their patients. The guideline was the result of the collaboration of the Singapore Medical Association and the Association of Private Medical Practitioners of Singapore (APMPS) in response to the Ministry of Health (MoH)'s call for a guide on medical charges. There had been four editions of the GOF (1987, 1992, 2001 and 2006) since its inception. With the withdrawal of the GoF, patients will no longer have benchmarks to assess the fees charged by their doctors and surgeons.

The Long-Term Impact of the PMIS Riders, the Withdrawal of the GoF, and As-Charge Medical Insurance Plans

The long-term impact from the introduction of as-charged plans, and PMIS riders, and the withdrawal of the GoF remains to be seen as it is still too early to tell. Some anticipate an increase in claims cost in the near future due to inflation of hospital, surgical and medical bills. If this happens, then the health insurance premiums will then have to be adjusted, or insurers may change plan deductibles and co-payment rates to keep the insurance affordable. Insurers may also have to become innovative in designing plans which encourages insured persons to monitor their medical costs.

If medical costs increase rapidly, there may be intervention from the MoH . Over the past few years, the MoH has taken several precautionary measures to rein in medical inflation. Some of the measures include improving transparency of hospital bills, publishing comparisons of hospital bills for various illnesses, and increase the transparency of medical insurance plans and sales process.

Eldershield

Launched in 2002, the ElderShield Scheme is a severe disability insurance scheme to help Singapore citizens and permanent residents pay for their long-term step-down care if they become severely disabled. In 2002, the Ministry of Health (MoH) appointed 2 insurers, Great Eastern Life and NTUC Income, for an initial period of 5 years, to operate ElderShield. Currently, the number of policyholders for Eldershield is estimated at 770,000. The contract is due for renewal in October 2007.

Reformation of Eldershield and Public Tender

In April 2007, MoH conducted an open tender to appoint insurers for ElderShield for a new 5-year period (October 2007 – September 2012). The intention was to reform the Eldershield structure with effect from October 2007 with the following objectives:

- Retain a "basic ElderShield" for all Singaporeans that will help pay for basic no-frills long-term step-down care.

- Allow private insurers to offer "ElderShield Supplements" with additional benefits and premiums on top of the basic ElderShield plan.

The insurers were invited to bid for:

- The right to offer the basic ElderShield as an opt-out scheme for eligible CPF members from October 2007; and

- The right to offer ElderShield Supplement plans. The ElderShield Supplements will be marketed as opt-in benefits and the premiums shall be payable from policyholders' Medisave accounts up to specified withdrawal limits.

Insurers were invited to submit quotations of their proposed premiums for the scheme. The selection of insurers would take into account several factors such as the proposed premiums, the effectiveness of proposed business plans for Eldershield, expertise and experience in relation to severe disability or long-term care plans, and level of investment in resources for managing ElderShield policies and claims.

The ElderShield tender document was published in GeBiz on 2 Apr 2007. The document contained all the technical details of the ElderShield scheme, and other necessary information for the purpose of submitting a tender bid. The deadline for submitting the quotation and business plans was set at 30 April 2007.

Results of Public Tender

On 19 June 2007, the MoH announced the results of the tender. Aviva was selected as the third insurer to compete with the two incumbents, Great Eastern Life and NTUC Income. According to the MoH FAQ (http://www.moh.gov.sg/mohcorp/hcfinancing.aspx?id=310#), Aviva proposed the most competitive premium bid, and Great Eastern Life and NTUC Income agreed to match these rates.

Several changes to the Eldershield scheme were announced as well:

- The monthly payout for Eldershield was enhanced from $300 to $400 and the maximum payout period was extended from 60 to 72 months in the event that the policyholder is severely disabled.

- The monthly premiums were increased by only $2.

The new scheme remained an opt-out scheme. CPF members reaching age 40 will be automatically covered under this new scheme unless they opt out.

However, there will be no auto-upgrading of benefits for the existing policyholders. Existing policyholders need to be medically underwritten before they can upgrade to the new scheme or purchase the Eldershield Supplement. For the upgrade, existing policyholders also have to pay a one-off premium adjustment. MoH has worked with the ElderShield insurers to spread the adjustment premium over a period of 5 years to facilitate ease of payment by policyholders.

Premium Rebates

The Eldershield contract contained a premium rebate provision, whereby if the actual claims experience turned out to be less than projected, the insurers must give rebates back to their policyholders. According to a press release by MoH on 22 June 2007, the rebate is estimated

to be $60 million, which is approximately 7% of premiums paid. This amount will be finalized at the end of the 5-year contract, i.e. end-September 2007, and paid thereafter.

Other Matters

Publication of Service Indicators for Medisave-Approved Integrated Insurance Plans

On 15 August 2006, MoH started to publish on a quarterly basis three insurance service indicators. The aim was to provide information to consumers in helping them to select their insurance providers, and therefore enhance market competition. The three indicators are as follows:

i) Claims return rates – This is actually the turnaround time for processing claims. It is defined as the number of days an insurer takes to process claims, including the time it takes to obtain medical records from claimants or medical institutions. These rates will allow customers to know how long each insurer takes to process claims and encourage insurers to process claims more expediently.

ii) Provision of letter of guarantee – MediShield and PMIS plans work on a reimbursement basis where patients pay for their hospital bills upfront and are subsequently reimbursed after their claims are approved. The letter of guarantee is provided by insurers to hospitals and reduces the amount that patients have to pay upfront, thus alleviating the financial burden on patients.

iii) Absorption of costs of obtaining medical records for claims assessment – Medical records usually cost between $75 and $250 to obtain. Publishing such information would allow the public to know whether some insurers require claimants to pay for such charges.

Here are some sample indicators published in the MoH website.

Table 1: Claims return rate for Jul to Sep 2006

	<= 1 week	<= 2 weeks	<= 4 weeks	Median (Days)
AIA	62% (+6%)	80% (+9%)	87% (+6%)	6 (-1 day)
AVIVA	62% (+12%)	67% (+2%)	75% (+4%)	5 (-2 days)
Great Eastern	63% (+21%)	71% (+8%)	84% (+3%)	4 (-6 days)
NTUC Income	27% (+26%)	41% (+31%)	74% (+22%)	18 (-10 days)
Prudential	Insufficient data	Insufficient data	Insufficient data	Insufficient data

Note: Figures in brackets show change from 15th August publication.
Source: http://www.moh.gov.sg/mohcorp/pressreleases.aspx?id=12236

Table 2: Provision of letter of guarantee and Absorption of costs of obtaining medical records
(As of 15 November 2006)

	Provides Letter of Guarantee	Absorbs costs of obtaining medical records [1]
AIA	No	No
AVIVA	No	No
Great Eastern	No	Yes
NTUC Income	Provided to Restructured Hospitals and Institutions	Yes
Prudential	No	Yes

Source: http://www.moh.gov.sg/mohcorp/pressreleases.aspx?id=12236

Note (1): Insurers who are shown to absorb the cost of obtaining medical records do so in the majority (more than 90%) of cases. There might still exist situations where the claimant is requested to pay for medical records.

Table 3: Claims return rate for Jan to Mar 2007

	<= 1 week	<= 2 weeks	<= 4 weeks	Median (Days)
AIA	88%	91%	94%	2
AVIVA	66%	70%	76%	3
Great Eastern	84%	86%	91%	1
NTUC Income	89%	92%	94%	2
Prudential	65%	70%	76%	4

Source: http://www.moh.gov.sg/mohcorp/hcfinancing.aspx?id=342

Table 3 showed remarkable improvements in the claims turnaround time (from Table 1) for all insurers.

Chronic Disease Management Programme (CDMP)

In early 2006, the MoH announced its plan to improve the care for chronic diseases starting with 4 common diseases; diabetes mellitus, hypertension, hyperlipidemia (lipid disorders) and stroke. As of April 2006, it was estimated that around 1 million Singaporeans were inflicted by such diseases. It was projected that if all participated in this scheme, the savings could be as much as SGD250 million a year.

The MoH conducted several pilot projects on managing such chronic diseases. These projects were done in public hospitals and polyclinics. Preliminary results were good. MoH then planned to extend such services to general practitioners, family physicians and polyclinics.

From 1 October 2006, MoH created Medisave for CDMP and the first chronic disease covered under this scheme was Diabetes Mellitus. This scheme pays for treatment even when treatment is carried out as outpatient care. From 1 January 2007, this scheme was extended to the other 3 chronic diseases: hypertension, hyperlipidemia (lipid disorders) and stroke.

As Medisave was initially intended to help with inpatient costs, one of MoH's concerns would be the abuse of the outpatient benefit under this scheme. To address this issue, MoH will monitor and publish regularly the performance, cost and effectiveness (health outcomes) of these programmes on its website. So far, there has not been any report issued by MoH on this yet.

In May 2007, it was reported that around 60,000 patients have claimed from Medisave for CDMP, with 78% of them claiming for diabetes. This is actually a far cry from the estimated number of Singaporeans with Chronic Diseases.

Table 4: Estimated Number of Singaporeans with Chronic Diseases

Age Group	Diabetes	Hypertension	Stroke
18-39	17,000	74,000	0
40-59	120,300	287,800	16200
60 & above	136,000	251,900	19000
Total	**273,300**	**613,700**	**35,200**

Source: http://www.moh.gov.sg/mohcorp/parliamentaryqa.aspx?id=16186, National Health Survey 2004

For more information on CDMP, please go to the Health Promotion Board website at http://www.hpb.gov.sg/chronicdisease/.

HOTA vs. MTERA

In 2006, there was some publicity through advertisements and blogs on HOTA in the papers. To shed some light on organ donation in Singapore, there are two pieces of legislation.

HOTA, which stands for Human Organ Transplant Act, was first introduced in 1987. Initially, it allowed the removal of kidneys for the purpose of organ transplantation from those who died in a hospital as a result of accident, and did not object to organ donation prior to their death. Since July 2004, HOTA was extended to include liver, heart, and cornea as well, and the death of the donor was no longer restricted to just accidental death. This act applies to all Singapore citizens and permanent residents between the ages of 21 and 60 years. Muslims were excluded from this Act because of religious reasons. This Act legislates an opt-out scheme whereby those who do not wish to participate in the scheme can fill out an opt-out form at public hospitals and polyclinics, the National Organ Transplant Unit (NOTU) or the Ministry of Health website.

MTERA stands for The Medical (Therapy, Education and Research) Act. Oh the other hand, MTERA is an opt-in scheme, where people can pledge their organs or any body parts for the purposes of transplant, education or research after they pass away. Anyone 18 years old and above can sign up as an organ donor. A pledge can only be revoked by the organ donor. Upon death, the organ donor's decision will be respected, and his family members will not be able to revoke his pledge. All organs can be donated or the donor can specify those that he wishes to donate.

Below is a comparison of the difference between HOTA and MTERA, taken from the MoH website.

Table 5: Comparison between HOTA and MTERA

	HOTA	**MTERA**
Age	21 - 60 years	Age limit for organ pledging: 18 years and above The adult next-of-kin can also pledge the organs of deceased patients of any age for donation.
Organs included	Kidney Liver Heart Cornea	All organs and tissues e.g. kidney, liver, heart, cornea, lung, bone, skin
Purpose(s)	Transplant	Transplant and treatment Education Research
Nationality	Singapore citizens and PRs	Any nationality

	HOTA	MTERA
Religion	Excludes Muslims	Any religion (For Muslims, MUIS has issued fatwas stating that the donation of kidney, liver, heart and cornea is permissible.)
Consent	Opt-out People who meet the above criteria will be automatically included under HOTA unless they register their objection.	Opt-in People who are not covered under HOTA, as well as people who wish to pledge any organ/tissue not covered by HOTA, will only have their organs removed if they have pledged their organs/tissues for donation.

Implications of HOTA

So what have these Acts got to do with us? If you are reading this but have not bothered much about HOTA over the past few years, it basically means that you are an organ donor already because HOTA operates on an opt-out basis. .

The HOTA act does have its merits as there is a long waiting queue for certain organs (e.g. kidney). There are clear guidelines on the diagnosis of "brain death" so that the medical professionals do not simply remove the organs by assuming that one is dead after a few minutes. However, there are controversies over this Act because the Act assumes that silence means consent.

Why amend HOTA in 2004?

The HOTA act was meant to solve the lack of organ donors in Singapore, particularly for kidney transplants. Here are some statistics on kidney transplants:

- Between 1970 and 1987, an average of 4.7 cadaveric kidney transplants was performed annually.
- The introduction of Sandimmune (cyclosporine) in 1985 significantly increased graft survival and increased the demand for kidney transplants.
- Between 1988 and 2004, there was an average of 40.8 cadaveric kidney transplants per annum, with 13.5 per annum being obtained through HOTA.
- By the end of 2003, there is a waiting list of 673 end-stage kidney failure patients.

As for liver and heart transplants, there was similarly a shortage of livers and hearts available. Between 1998 and 2003, there was only an average of 7.3 liver transplants per annum and 1.8 heart transplants per annum. Due to the shortage of organs, an average of 14.7 patients per annum died while waiting for a liver transplant, and 2.7 patients per annum died while waiting for a heart transplant.

As for cornea transplants, Singapore relied heavily on imported corneas, mainly from the United States of America. Between 1998 and 2002, there were 861 cornea transplants carried out in Singapore, of which 363 (42%) transplants involved imported corneas. As imported corneas might not be of optimal quality because of the long transit time between the country of origin and Singapore, there was a need to increase the local supply of corneas.

With the HOTA operating on an opt-out basis, a number of residents may forget to opt-out or may actually become more receptive to the idea of being an organ donor. Over the period of 2003-2005, about 800-1100 people die in accidents (including poisoning and violence) per year. This would increase the supply of organs, hence providing higher chances for patients

to seek for a matching organ. Within the first year HOTA being amended in 2004, the kidney transplant waiting list has begun to shorten but the organ donation rates still lag behind United States of America and United Kingdom.

Impact of HOTA on Insurance?

The impact of this amendment of HOTA would most likely be higher for Medisave than for private medical insurance. Medisave basically covers everyone because it is a social medical insurance.

For private insurance, Major Organ Transplant is one of the covered events under a typical critical illness policy in Singapore. Sometimes it is also covered under a medical expense policy. Usually the benefit amount is limited and is claimable once only.

The impact on private insurance would depend on how many of such patients are insured. However, assuming most Singaporeans have medical insurance policies together with life insurance policies, then the increase in the experience for private medical insurance would be partially offset by lower mortality experience.

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