
Towards universal health coverage: the national health insurance in Singapore

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Abstract: This paper investigates the factors resulting in Singapore's health insurance coverage expansion through MediShield Life. A questionnaire-based survey is used to identify these factors. It is found that the Singaporean Government is rolling out MediShield Life to enhance coverage, but it remains to be seen whether this will alleviate the health insurance cost burden for Singaporeans. In practice, MediShield has not provided adequate coverage owing to exclusions of people bearing congenital or chronic illnesses, the elderly, and those who cannot afford private health insurance; MediShield Life aims at addressing these issues. The social implications are that although Singapore's healthcare system has been recognised as world-class, the healthcare services there are not perceived by citizens to be affordable; MediShield Life attempts to alleviate this concern. This paper provides a discussion about the affordability vs. coverage of Singapore's national health insurance, optimal balance between public and private health insurance, gaps and necessary reforms.

Keywords: MediShield; compulsory national social insurance scheme; universal health coverage; healthcare service affordability; MediShield Life; national health insurance; Singapore.

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1 Introduction

The key goals of a national comprehensive universal healthcare system are to provide lifelong access to high quality essential health services for residents (e.g., treatment, rehabilitative, palliative, etc.) without the risk of financial ruin or impoverishment. The provision of comprehensive universal coverage is now an ambition for governments of nations at all stages of development. While the health status of residents, the causes of morbidity and mortality, and the health infrastructure may vary greatly among nations, there is an emerging norm of international law that views access to a decent minimum level of healthcare is a basic human right (Marks, 2013). However, given the variations in resources, each nation must determine its own priorities for improving health, the nature of essential services to be provided, and the appropriate financing mechanisms (Dye et al., 2013).

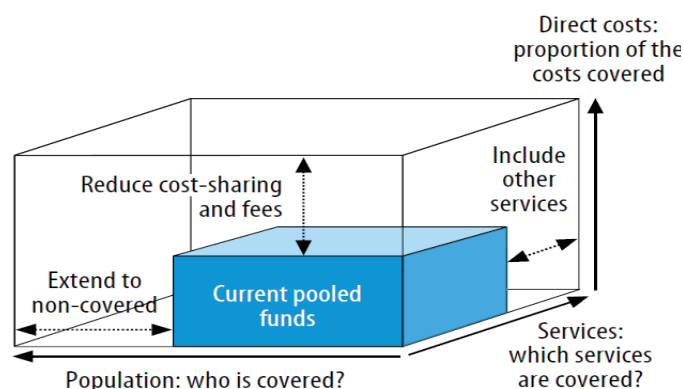
The formulation and implementation of policies to support a governmental system to provide comprehensive universal healthcare coverage must address three issues:

- a the delineation of the essential health services to be provided
- b the number of people that will be provided these services
- c the costs that to be borne by the users and third-party funders.

The challenge for health policymakers is to determine the optimal size of each dimension of the system, i.e.;

- 1 Who is covered
- 2 Which services are covered
- 3 What costs are covered (see Figure 1)?

Figure 1 Measuring progress towards universal health coverage in three dimensions (see online version for colours)



Source: Etienne et al. (2010) and Busse et al. (2007)

Universal healthcare systems typically provide access to a broad spectrum of services that range from clinical care for individual patients to public health measures necessary to protect the health of whole populations. Services may be provided by both the public and private sectors. Financial risk protection is also necessary to provide overall social protection (Diop and Cichon, 2010). The peace of mind that is given by protection against severe financial difficulties in the event of illness is an integral part of well-being.

Governments must take into account many factors in providing universal access to high quality essential health services for all residents notwithstanding health status, age, or income level (Chisholm and Evans, 2010).

One widely used mechanism to provide financial risk protection is to combine the prepayment for routine and expected services with insurance coverage for catastrophic losses. Nonetheless, governments in low-income countries may not have sufficient funds to eliminate excessive out-of-pocket expenditures for all essential health services, and it is a significant challenge for these states to find an appropriate solution within budgetary limits that will allocate scarce resources to maximise the covered population access while limiting costs and maintaining quality (Etienne et al., 2010).

It is a difficult challenge for governments to decide how best to move closer to universal coverage when financial resources are limited. And the move toward universal coverage should be subject to ongoing evaluations to measure the effectiveness of the methods used that include the use of valid indicators and appropriate data (Dye et al., 2013). In devising an optimal universal healthcare system, it is essential that policy makers have an understanding of the causes of ill-health in the population, the possible interventions to address those causes, the characteristics of those in the population without access to essential health services, and the extent of financial hardship incurred by those paying out-of-pocket. After providing an introduction to MediShield and reviewing recent reforms, this article presents research on the perceptions of Singaporeans on the affordability and adequacy of MediShield.

2 Introduction to health insurance in Singapore

In the existing health policy literature, MediShield, the Singapore national healthcare system has been repeatedly praised for its efficiency and is often referred to as a model for healthcare reforms in the USA (Jones, 2013). MediShield purported to ensure affordability of quality healthcare services (Heng, 2007). Singapore citizens and permanent residents (PR) are automatically enrolled in MediShield unless they opt-out. Eligibility criteria for the automatic enrolment include being below the age 90 years, and the absence of severe pre-existing medical conditions. Since 1 March 2013, however, new-born babies have been enrolled at birth before any conditions may appear that could block enrolment (Ministry of Health, Singapore, 2013a). Nonetheless, despite its world-class reputation and continuing government assurances of access, there have been significant problems with the availability and affordability of health insurance coverage in Singapore:

- 1 people with congenital or chronic illnesses have not covered by the national insurance system
- 2 owing to the many limitations in its coverage and lack of private options, many people have not had adequate health insurance coverage.

The main goal of having one's health insured is to stay financially stable while nursing one's weak body back to health, but MediShield has failed to provide sufficient assistance to help Singaporeans cope with rising costs of healthcare services in Singapore although several revamps have been previously introduced. A survey conducted by Mindshare in 2012 showed that 72% of respondents agreed to the statement "we cannot afford to get sick these days due to the high medical costs" (Hooi, 2012). Thus MediShield has not provided Singaporeans with a sense of assurance. Although only 8% of the population (Singapore citizens and PR) are not insured under MediShield, problems have existed with both the limitations of its coverage and its complexity that have been coupled with the limited availability of private health insurance schemes to supplement its inadequacy. Joshi and Lim (2010) surveyed 1,510 respondents in Singapore concluding that people with lower household income and lower educational level were less likely to have health insurance, and even those with insurance were less likely to agree that MediShield is sufficient to meet healthcare needs.

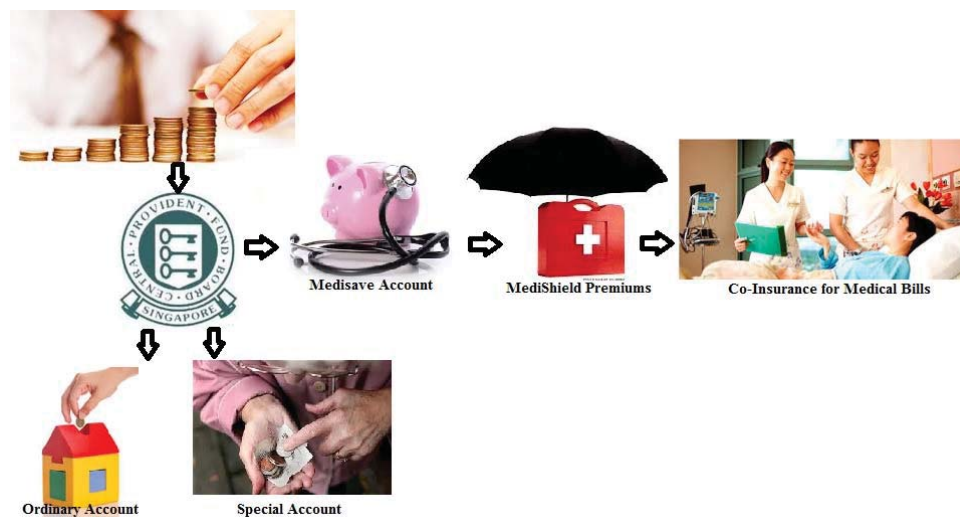
MediShield is unlike universal insurance schemes in other developed countries. It is not an open-ended insurance that covers all medical treatments (Gill and Low, 2013). The insured may access coverage only for large expenses spent on hospitalisation (above eight hours), day surgery and only certain outpatient treatments (excluding common illnesses like cough and flu) at approved medical institutions (Ministry of Health, Singapore, 2013b). In other words, only serious catastrophic illnesses will be covered under MediShield.

Additionally, there are also groups of Singapore citizens and PRs who do not meet the eligibility requirements for MediShield coverage. Because the revamp for new-borns to be automatically enrolled into the scheme was made only in 2013, others who were born with congenital diseases before this are not entitled to be covered by MediShield. Those who opted out are also not eligible to enrol themselves back into MediShield after they are diagnosed with chronic illnesses. They may also face rejection by private insurers due to their pre-existing conditions and high risks. The problem does not stop at

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affording their hefty medical treatments. People with such illnesses also find difficulty in obtaining well-paying jobs.

Figure 2 MediShield premiums’ payment mechanism (see online version for colours)



MediShield premiums are paid using savings set aside in one’s central provident fund (CPF) account (refer to Figure 2, *infra*, for the process of paying MediShield premiums). Singapore citizens and PR may also use their CPF accounts to pay for their dependent children or parents in old age.

Table 1 MediShield yearly premium rates for different age groups of eligible persons

Age next birthday	MediShield yearly premiums	
	In Singapore dollars	In euros
1 to 20	50	30
21 to 30	66	39.6
31 to 40	105	63
41 to 50	220	132
51 to 60	345	207
61 to 65	455	273
66 to 70	540	324
71 to 73	560	336
74 to 75	646	387.6
76 to 78	775	465
79 to 80	865	519
81 to 83	1,123	673.8
84 to 85	1,150	690
86 to 90	1,190	714

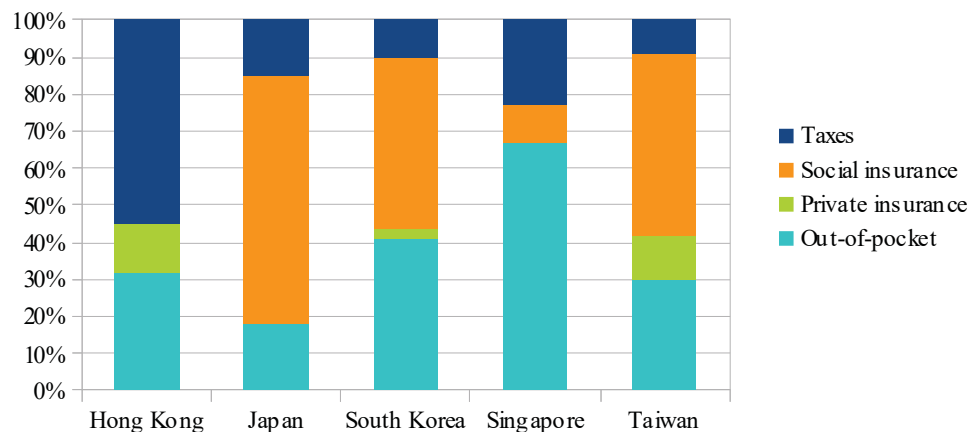
Source: http://www.moh.gov.sg/content/moh_web/home/costs_and_financing/schemes_subsidies/Medishield/Premiums.html

The Singapore government tries to keep MediShield premiums lower for younger persons by categorising insured persons into age groups charged with different premiums ages (Table 1) but this premium unaffordable for some of the elderly.

Thus arguably the current MediShield system does not meet standard of fairness and equality (Tan, 2012). Moreover, even for the educated, the MediShield system for making claims is unnecessarily complex and unclear. It is not a straightforward insurance scheme in which the insured submit necessary documents to the insurance providers to make a claim according to the payout tables in the policies. MediShield has co-insurance and deductibles features, which means that the insured still has to pay a compulsory sum out of his/her pocket to cover a portion of the medical expenses.

While private health insurance may be purchased to supplement MediShield, there is a lack of availability. Ernst and Young has noted that the private non-life insurance (including private health insurance which belongs to this insurance branch) penetration rate of Singapore, measured as percentage of insurance premiums in country's GDP, is 1.5% as of 2011 and this is still below other developed countries in Asia like South Korea and Taiwan with 4.6% and 3.1% respectively. This low penetration indicates that there is still a relatively large potential market for insurers and that there are many people in Singapore who are, most likely, underinsured privately. Moreover, Wagstaff (2005) (Figure 3) found that the proportion of governmental funding of healthcare is much lower in Singapore than in four other Asian countries (Hong Kong, Japan, South Korea and Taiwan). Indeed, it is also the only country of the five in which its people finance the largest part of their healthcare expenditures through their own money.

Figure 3 Breakdown of healthcare spending sources in developed Asian economies (see online version for colours)

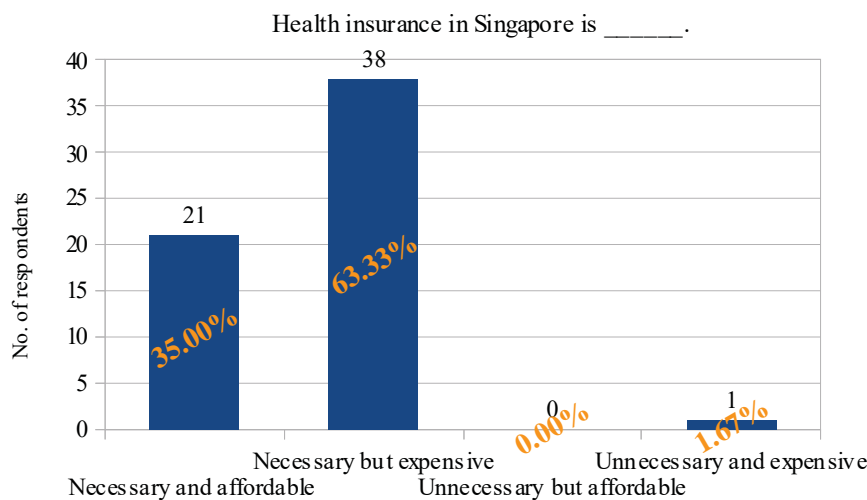


Source: Wagstaff (2005)

In addition to lack of availability, private health insurance is also perceived to be expensive. When asked about their perceptions of affordability of Singapore's health insurance in general, 65% of the survey respondents replied that it is expensive rather than affordable (refer to Figure 4). While patients want to have affordable insurance that will reduce their out-of-pocket expenses, insurers tend to reject the people with high risks to maximise profits. Policies in the private health insurance coverage in Singapore affordable typically provide inexpensive premiums with inadequate coverage (Tan-Goh,

2013), which leaves many underinsured. Global assurance reports that insurance premium inflation rate of Singapore was at 11.3% for the year 2013, highest of the ten regions included in the study. Furthermore, in line with revamps made to MediShield this year, private health insurers have increased annual premiums by about 20% to 50% on average (Ng, 2013).

Figure 4 Perceived necessity and affordability of health insurance in Singapore (see online version for colours)



In response to these problems, the government has announced the introduction of significant reforms to be accomplished through the adoption of MediShield Life. On 26 June 2014, the Singaporean Minister for Health announced that the Singaporean Government had accepted the report of the MediShield Life Review Committee. The Government subsequently announced that MediShield Life will be implemented in 2015 with the following features:

- universal coverage (all Singapore citizens and permanent) regardless of pre-existing conditions or previous rejection by insurers
- lifetime protection
- greater coverage of hospital bills than traditional MediShield
- premiums payable through Medisave (the health savings account that all employees are required to fund with 8 to 10.5% of income)
- with better coverage, the premiums will increase
- the government will provide significant premium subsidies for low and middle-income persons
- additional premium support available to those for whom premiums are unaffordable even after subsidies
- automatic enrolment.

3 Attitudes of Singaporeans on the affordability and importance of health insurance in Singapore

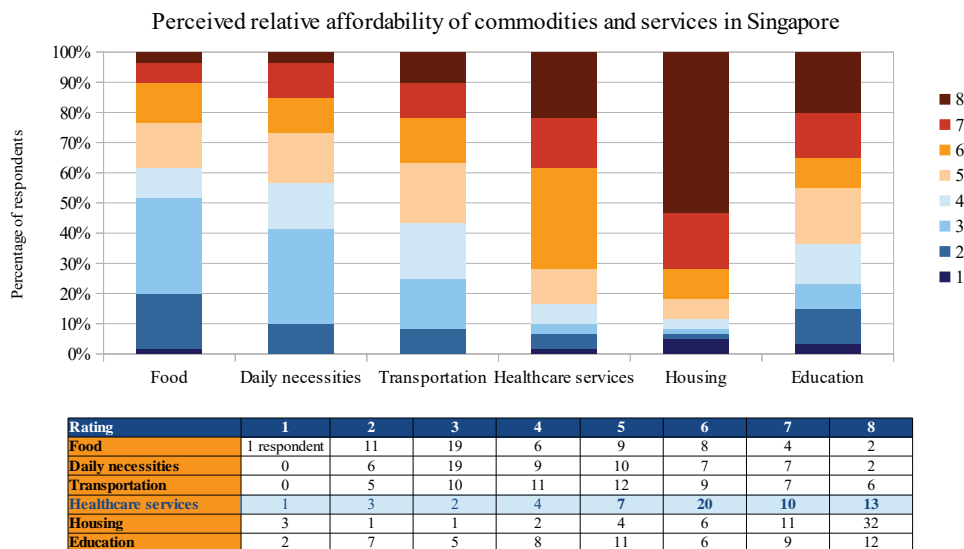
3.1 Research study

- *research goal*: to investigate the opinions of people in Singapore on the affordability and importance of healthcare services
- *research population*: people residing in Singapore
- *research methods*: questionnaire-based survey, the analysis of the collected data is supported by statistical data from the existing literature, combined with the evaluation of the health insurance system through the government policy
- *research sample*: 60 respondents from Singapore
- *sampling method*: random sampling
- *research period*: November 2013.

3.2 Perceived affordability and importance of healthcare services among other goods and services

When evaluating people's perceived affordability of a basket of goods, services and commodities that are available in Singapore, healthcare services are given a mean rating of 5.97 by the respondents on an eight-point scale, where 1 is equivalent to a value of most affordable and 8 – least affordable. Referring to Figure 5, infra, 83.3% of the respondents gave the affordability of healthcare services a rating of 5 and above.

Figure 5 The cost of living in Singapore (see online version for colours)



Note: Opinion measured on a scale from 1 to 8 with 1 being the 'most reasonably affordable' and 8 'least reasonably affordable'.

Since prices of housing in Singapore have been on the climb for the past years and required immediate attention from the government to ease an inflating housing bubble, it is not surprising to see most rating of 8 (least affordable) for housing. On the other hand, the fact that the majority of the survey respondents gave rating of 6 for healthcare services indicates genuine concerns about long term affordability. In actual fact, healthcare costs are indeed on the climb as standard of living rises in Singapore. Since healthcare services are relatively expensive in the eyes of many people, it seems likely that those without sufficient health insurance not seek medical attention as readily (Goh and Lam, 2013). The failure to obtain necessary health services because of financial concerns could increase health problems and costs in the future. More than 78.3% of the respondents agreed that health insurance is important to them (Figure 6, infra.).

Figure 6 Perceived importance of having health insurance (see online version for colours)

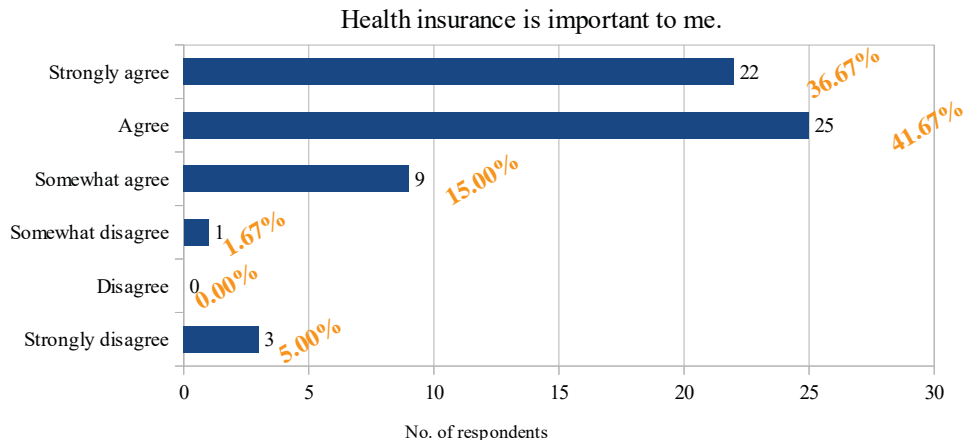
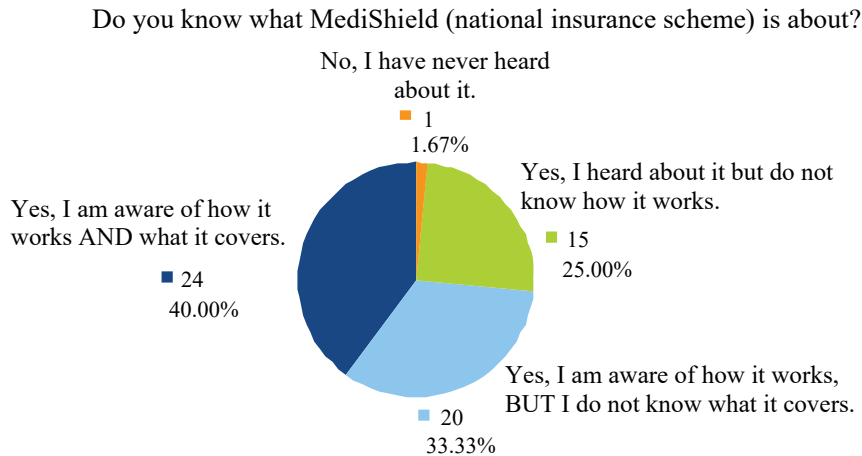


Figure 7 Level of awareness of MediShield (National Health Insurance of Singapore) (see online version for colours)



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There is also great concern about the complexity of MediShield and uncertainty as to its coverage: 60% of the respondents (Figure 7) were not fully aware of the extent of MediShield covers and 27% of them do not know how it works. This shows that not many people are sure about what they can do with their national health insurance. Without sufficient confidence in the system, it is difficult for MediShield to provide assurance and peace of mind to people.

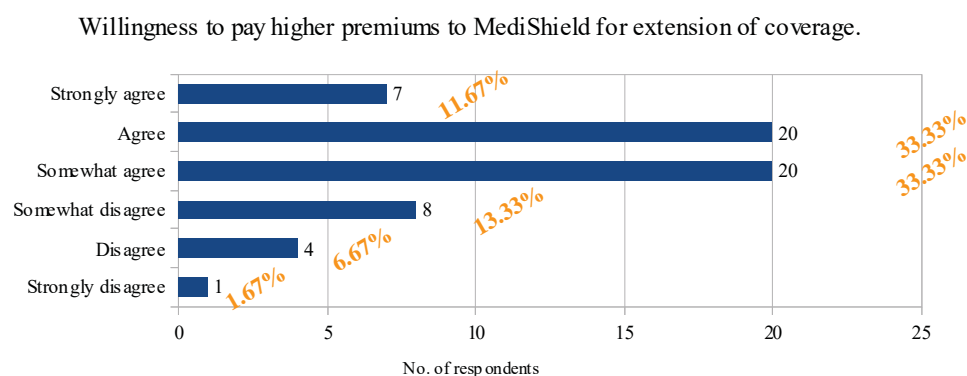
As noted above, MediShield has played only a minor part in providing coverage for healthcare costs, and private health insurance is perceived to be costly and unavailable.

4 Solutions and feasibility evaluation in Singapore

4.1 Moving towards universal insurance

To improve on the national health insurance situation, the Singapore government has announced the implementation of MediShield Life in 2015. It will change MediShield into a universal insurance scheme to cover every single citizen and PR, and to ensure that all people are well-protected against rising healthcare costs and ageing population. Not surprisingly, this expansion of coverage will also result in increased premiums that MediShield have to hike even higher. MediShield Life will become mandatory for all. While some people may be upset by higher premiums, it is positive to note that the younger generations in Singapore are willing to pay more to help elderly members who cannot afford it (Chua and Kok, 2013). The poll, done on 50 young working adults aged 21 to 40, cited higher earning power as a reason why three-quarters of them are willing to do so. 81% of these are willing to pay 30% more than their current premium rates. Likewise, the survey for this paper shows that 78% of the respondents are willing to pay higher premiums so that MediShield will extend its coverage to all people (see Figure 8).

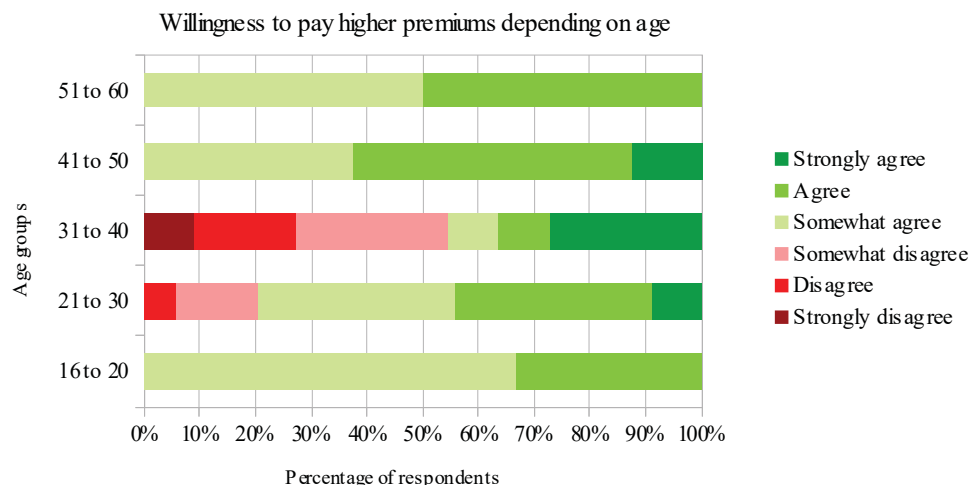
Figure 8 Willingness to pay higher premiums to MediShield to extend the insurance coverage to every Singapore citizen (see online version for colours)



While this result is consistent with Chua and Kok (2003), it also indicates that the respondents between 21 and 40 have more diverse sentiments than those in other age groups. There is more unwillingness to pay higher premiums among respondents between 31 to 40 who are most likely working adults (see Figure 9). But because only 11 respondents of 60 are in this age group, it is not sufficiently representative. On the

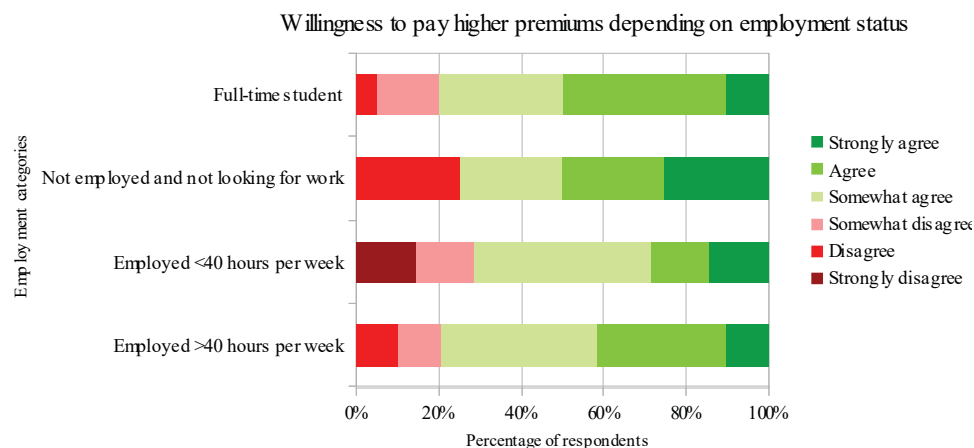
whole, it can still be concluded that most respondents are willing, to some extent, to pay higher premiums.

Figure 9 Age and willingness to pay higher premiums for MediShield extended coverage (see online version for colours)



A closer look at the respondents' employment status rather than age also shows that at least 70% of them in respective employment status are willing to pay higher premiums. However, a large part seem to have revealed partial willingness by choosing 'somewhat agree' (see Figure 10).

Figure 10 Employment status and willingness to pay higher premiums for MediShield extended coverage (see online version for colours)



This research suggests that the implementation of MediShield Life will not face huge objections, but premiums must not increase to a point from which people would become unsatisfied. At the same time, the government should consider lowering premiums for the elderly and introduce 'front-loading'. It is most crucial that the government finds out

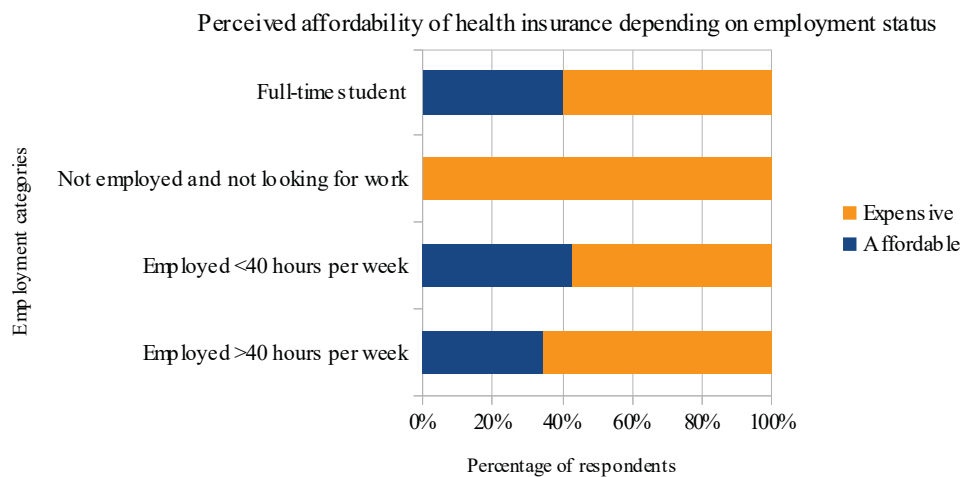
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what the optimal premium rates are to implement the new MediShield Life successfully. With this, a team of various experts from financial, voluntary and healthcare industries was formed to “understand the concerns of as wide a spectrum of people as possible” (Khalik, 2013).

4.2 Enhanced cooperation between the private and public healthcare insurance sectors

Currently, the groups who find health insurance affordable are mainly the employed and students. A possible reason for the 40% of students who find it affordable is lower premiums they have to pay because premiums rise with age. On the other hand, more than 60% of the 29 full-time employed persons find health insurance to be expensive (see Figure 11). In addition, it is crucial to the success of MediShield Life that private health insurance should be affordable so that people who think they supplemental coverage. It is noteworthy that there has been greater cooperation between public and private insurance providers. For example, people may now use Medisave to pay for premiums of approved private health insurance plans provided by five providers. Since July 2005, these private plans are integrated with MediShield so that policyholders are on just one plan only but receive enhanced coverage (Ministry of Health, Singapore, 2013c). It is less complicated because one does not have to meddle with two insurance contracts and have only to deal with one’s private insurance company. Private insurers will service the claims and sort out all back-end arrangements with the government authorities to include any pay-outs from MediShield.

Figure 11 Employment status and perceived affordability of health insurance in Singapore (see online version for colours)



Technically, it is affordable for people to buy private health insurance since they can use Medisave to pay. However, there is income-inequality in Singapore with Gini coefficient of 0.437 after government transfers and taxes in 2012 (Department of Statistics, Singapore, 2012). This means that there are people who do not earn high income and therefore do not have high savings in their Medisave account either. Thus, it is still critical for the government to reduce income-inequality in the country.

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In addition, Joshi and Lim's (2010) research also shows that people with lower household incomes and educational levels tend not to have health insurance because they believe healthcare is affordable even without insurance. Hence, educational efforts to explain the importance of health insurance should reach out to them.

More importantly, the government has to ensure that the important role of health insurance regulators is in place and active in sorting out the balance between the interests of insurers and insured. In Tan-Goh's (2013) words, the balance is between 'better coverage for patients' and 'ensuring fiscal sustainability of the insurance sector'.

Income-equality is a complicated issue, but the move towards a universal insurance scheme should at the least ensure that people feel assured even if they cannot afford private insurance. Better dissemination to the people about the constant new revamps of MediShield has to be further strengthened so that they are always knowledgeable about what they can expect from their insurance.

5 Introduction to MediShield Life

On 26 June 2014, the Singaporean Minister for Health announced that the Singaporean Government accepted the report of the MediShield Life Review Committee. The report suggests a number of measures to improve Singapore's National Health System (Chin et al., 2014). These are highlighted in what follows.

- 1 Improved protection against large hospital bills and expensive chronic treatments
 - lifetime claim limit elimination and policy year claim limit increase
 - increase of the daily limits for hospital stays
 - increase of the limits for surgical and outpatient cancer treatment
 - reduction of the co-insurance rates from 10–20% to 3–10%
 - reduce premium rebates eligibility age from 71 to 66.
- 2 Life-long health protection benefits for all Singaporeans
 - life-long health protection benefits for all Singapore citizens and PR, regardless of financial situation
 - coverage of all pre-existing health conditions
 - risk sharing by everyone at the national level:
 - a 'government to bear about 75% of the costs of bringing those with pre-existing conditions under MediShield Life, at an estimated cost of \$850 million over the first five years
 - b individuals with pre-existing conditions pay an additional 30% of the standard premiums for the first ten years.
 - c all other Singaporeans to co-share a modest part of the costs'.
- 3 Increased protection and coverage for all by means of increased premiums while government provides support to keep premiums affordable.
 - pre-existing condition coverage partly covered by people and partly by government

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- limits on Medisave withdrawals to ensure continuous coverage of MediShield Life premiums
 - premium increase for working age persons so as to limit the impact of high premium rates in old age
 - government commitment to support Singaporeans in paying for their premiums.
- 4 Improving efficiency of MediShield plans
- government cooperation with the insurance industry on the improvement of MediShield plans
 - integrated shield plan insurers can now manage people with pre-existing conditions on a different basis as healthy policy holders, including risk-loading
 - improve the framework for regulatory and accountability of integrated shield plans and of approved insurers.

6 Concluding remarks

With rising costs of healthcare and ageing population, health insurance becomes increasingly important for people in Singapore. While MediShield is named a national health insurance scheme in the city-state, insurance plays only a meagre part in sharing the costs of healthcare expenditures of the people. Regarding healthcare spendings, Singaporeans pay a lot more out of their pockets in contrast to the populations of other developed countries. Furthermore, the scheme is complicated to follow and has many limitations. Private health insurance is perceived to be expensive and people may not buy it to supplement the inadequacy of having just MediShield.

Although there are problems of MediShield that cloud the assurance it should provide for the people, there are upcoming new plans that would make it a better national health insurance scheme. The current discussion goes on about transforming MediShield into MediShield Life as a compulsory universal health insurance that will cover all citizens and PR in Singapore. There is also a need for enhanced cooperation between the public and private health insurers.

One question that remains, though, is what will happen after 2019 once the transition from the premiums largely subsidised by the government to full premiums has occurred. By that time it is expected that Singapore's growth will slow down (because the economy is becoming mature), thus the cost of health insurance will no longer be hidden by the growth of economy. Given this, it might be that the universality of health coverage will be challenged since its pillars (availability, affordability, efficiency and quality) might be adversely impacted. In turn, continuous adjustments and improvements to MediShield Life will be needed.

Finally, people, insurers and government should remember that maintaining an active and healthy lifestyle can significantly reduce the collective burden related to health insurance costs; this is something that should be promoted as part of the new program.

As for the future research, there are a few open issues that must be taken into consideration. Firstly, a thorough analysis of the costs and benefits of the implementation of MediShield Life should be conducted. It might be that the introduction of the new health insurance scheme will increase healthcare costs for the Singaporean government and this as well might increase the prices of healthcare services within the private sector.

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Secondly a cost-effectiveness analysis from a viewpoint of potential increased utilisation and improvements in health status as a result of switch to MediShield Life health insurance scheme.

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