FINANCIAL PROTECTION POTENTIAL BY SOCIAL SECURITY SCHEME AMONG INSURED WORKERS ADMITTED TO MEDICAL WARD OF MANDALAY WORKERS' HOSPITAL IN 2011

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ABSTRACT: Under the Ministry of Labour (MOL), Myanmar exists a compulsory health insurance scheme, as a component of the Social Security Scheme (SSS) run by Social Security Board (SSB). MOL runs three hospitals, two in Yangon Region and one in Mandalay City, to render services to those entitled under the SSS. The number of insured workers covered by the scheme is 520,000 in public, cooperative and private sectors. This hospital-based descriptive study was carried out in Medical Ward of Mandalay Workers' Hospital in 2011 to explore to what extent the Social Security Scheme currently in practice has provided financial protection to those insured. This study involved interviewing 66 insured hospitalized workers. The total health expenditure for 66 insured hospitalized workers was 8,451,932 Kyats. According to this figure, 21.2 percent of workers encountered financial burden. However, 63 percent of the total health expenditure was reimbursed by the Social Security Board (SSB). After getting this reimbursement the workers encountering financial burden declined to 4.5 percent. The reasons for the remaining financial burden were the costs for attendants, meals, and transportation. It is recommended that the coverage of the social security scheme needs to be extended to other formal sectors, and possibly to informal sector. Through such extension, workers in the formal sector could get the social health protection from encountering catastrophic expenditure.

Keywords: Health insurance, Social security scheme, Mandalay, Myanmar

INTRODUCTION

In the public sector of Myanmar, Ministry of Health is the main organization providing comprehensive health care while some ministries are also providing health care, mainly curative, for their employees and their families. Included among other ministries, providing health care to their employees and their dependents, are Ministry of Labour, Ministry of Defense, Ministry of Railways, Ministry of Mines, Ministry of Industry 1, Ministry of Industry 2, Ministry of Energy, Ministry of Home and Ministry of Transport. Under the Ministry of Labour (MOL) exists a compulsory health insurance scheme, as a component of the Social Security Scheme (SSS) run by Social Security Board (SSB). MOL is running three hospitals, two in Yangon Region and one in Mandalay City. The insured workers can get reimbursement from SSS after receiving the medical services from the Government Hospitals. Nowadays, the Social Security Act comes into force in 108 townships in 13 States and Regions. Previous reports indicated that there is a total of 494,385 workers covered form the public, co-operative and private sectors as of March, 2006 [1, 2]. This number of insured workers is said to have increased to 520,000 at the time of this study [3].

In the light of this situation, it becomes important to explore to what extent the Social Security Scheme currently in practice has provided financial protection to those insured.

MATERIALS AND METHODS

Hospital based descriptive study was done in all in-patients in Medical Ward of Mandalay Workers' Hospital during 1st May 2011 to 30th June 2011.

Data collection tools and techniques

Data collection tools were: pre-structured questionnaires, checklists for hospital costing and individual costing.

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Table 1 Cost categories of provider cost

Recurrent cost	Capital cost
- Drugs	- Infrastructures
- Investigations	- Invasive procedures
- Salaries	- Medical instruments
- Invasive procedures	
- Medical instruments	

Data source and method of data collection

Primary data was collected by interviewing the patients for costing data and incomes of patients, and secondary data was obtained from reviewing in-patients records, the records from Mandalay Workers' Hospital and SSB office, MOL, Nay Pyi Taw. Data collection tools were included pre-tested structured questionnaire, and data entry sheets for hospital costing and individual costing.

Data analysis

Collected data were reviewed for completeness and then data entry done with Microsoft Excel 2010 software. After entering the data, data clean-up was done by checking frequency distribution tables, graphs and outliers and errors were checked.

Calculation of provider costs

Calculation of provider cost is theoretically base on two main cost categories: recurrent and capital cost. The detail of item to be included in cost calculation for each cost category is as shown in Table 1.

Capital costs such as infrastructure cost and cost for medical instruments cannot be calculated in this study. The working life for the building can be expected as 20 years [4]. The working life of Mandalay Workers' Hospital was more than 20 years. So, it was been included in calculating the costs. The cost for medical instrument was not included in costing data because there were no cases which used the medical instruments of the medical wards. Cost for Investigations was calculated according to price value from National Health Laboratory, Department of Health.

$$\text{Salary cost for provider of 1 patient} = \frac{\text{Total amount of salaries for providers}}{\text{Total number of patients in a mount}}$$

Drugs costs will be calculated by the tender prices of SSB office.

Calculation of patient cost

Other cost and transportation cost were calculated by current prices.

Opportunity cost = Individual income lost + Family income lost [5]

Individual income lost = Daily income × Numbers of work - Lost days

Individual income lost is taken as opportunity cost. Costs for attendants were calculated based on current prices of meals.

Total cost for health care (Health care expenditure)

Total cost for health care = Provider cost + Patient cost

Catastrophic health expenditure

In this study, the WHO's definition for the catastrophic expenditure for health care expenditure was used. According to the definition, the health care expenditure became catastrophic when the households' out-of-pocket payments (OOPs) were became equal or greater than 40 percent of non-food expenditure [6]. This cut-off point was used in this study and the insured workers were categorized into two groups. The first group was the OOPs less than 40 percent and the second was greater than or equal 40 percent.

$$\text{Health expenditure as percentage of capacity to pay} = \frac{\text{Health care expenditure}}{\text{Non-food expenditure}} \times 100$$

If the result is >40%, it is identified as "Catastrophic Health Expenditure". Non-food expenditure was equal to 39.98% of total household annual income [7] and this figure was applied in expenditure calculation in this study.

RESULTS

Socio-demographic characteristics of the insured patients included in the study are as shown in Table 2.

Among these 66 of insured patients, the mean age was 43years and median age was 42 year. The age group, between 51 to 60 years, was mainly included, 34.8 percent. The smallest component was the age group, more than 60 years old, 1.5 percent. The main participant of this study was the male population. The male patients were two times higher than female patients in this study. As regards the marital status, 30.3 percent in single and 68.2 percent in married group. Concerning the educational level, majority of the insured patients in the study have reached middle school level and above. Government-employees constituted the majority in the study patients. Regarding job category, majority (83.3%) were laborers.

The total health expenditure (THE) can be sub-divided into provider cost and patient cost. The provider cost included the cost for human resources (which were used as provider cost in this study), drugs cost and investigation cost. The patient cost included the opportunity cost, cost for attendants, travelling cost and other costs. The THE, used for 66 insured patients, was 8,451,932.2 kyat. Therefore,

Table 2 Socio-demographic characteristics of the insured patients (n=66)

Socio-demographic characteristic	Frequency	Percent
Age group		
21-30	13	19.7
31-40	17	25.8
41-50	12	18.2
51-60	23	34.8
>60	1	1.5
Mean,	43	
SD	11.77	
Minimum Age	23	
Maximum Age	68	
Gender	44	
Male	22	66.7
Female		33.3
Marital status		
Single	20	30.3
Married	45	68.2
Divorced	1	1.5
Educational level		
Primary school level and below	19	28.8
Middle school level and above, below high school level	21	31.8
High school and above	26	39.4
Work sector		
Public	51	77.3
Private	15	22.7
Job category		
Laborers	55	83.3
Supervisor level and above	11	16.7

Table 3 Contributions in Total Health Expenditure (in per cent)

Cost category	Percentage
- Drugs cost	17.44
- Investigation cost	18.79
- Cost for human resources	4.67
- Opportunity cost	22.22
- Cost for attendants	18.92
- Travel cost	1.83
- Other cost	16.13

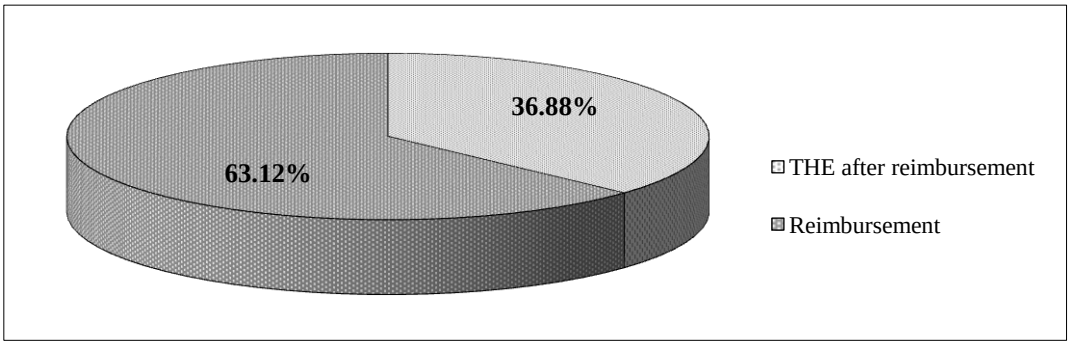

Figure 1 Diagram showing contributions in reimbursement (in percent)

the mean THE for one insured patient is 128,059.58 Kyats in this study, the opportunity cost played as the major component in the contribution of THE, 22.22 percent of THE. Cost for attendants and investigation cost were the second and third largest components in THE, 18.92 percent and 18.79 percent of THE respectively (Table 3).

In 8,451,932.2 Kyat of THE, the SSB reimbursed most of the costs. The reimbursement consisted of all the provider costs and the opportunity cost from the patient side. The reimbursement of SSB in this study was 5,334,586.1 Kyat in THE. It was 63.12

Table 4 Distribution of financial burden if not insured (n=66)

Health Expenditure as percentage of capacity to pay	Frequency	Percent
<40%	52	78.8
40% and above	14	21.2
Total	66	100

Table 5 Distribution of financial burden if insured (n=66)

Health Expenditure as percentage of capacity to pay	Frequency	Percent
<40%	63	95.5
40% and above	3	4.5
Total	66	100

percent of the THE. So, only 36.88 per cent of THE (3,117,345.9 Kyat) was the final cost after the reimbursement (Figure 1).

In calculating whether the financial burden is present or not in this study, the percentage of total health expenditure was based on the family (household) based non-food expenditure. It is found that 52 insured patients had THE less than 40% of their non-food expenditure. It constitutes 78.8 percent of the total study population. On the other hand, 14 insured patients (40%) suffered the financial burden, Table 4.

The number of the insured patients who met the financial burden decreased after they had got the reimbursement from SSB, from 21.2% to 4.5% (Table 5).

DISCUSSION

In this study, the WHO's definition for the catastrophic expenditure for health care expenditure was used. According to the definition, the health care expenditure became catastrophic when the households' out-of-pocket payments (OOPs) were become equal or greater than 40 percent of non-food expenditure [6]. This cut-off point was used in this study and the insured workers were categorized into two groups. The first group was the OOPs less than 40 percent and the second was greater than or equal 40 percent.

Seventy eight point eight percent of the hospitalized insured workers were not met with the financial burden. The result was for the workers if they were not insured. If they were insured in SSB, the group, who met the financial burden, decreased in number from 21.2 to 4.5 percent. This was obviously seen in numerical values.

RECOMMANDATION

Based on the findings the coverage of the social security scheme needs to be extended to other formal sectors, and possibly to informal sector. Through such extension, workers in the formal sector could get the social health protection from encountering catastrophic expenditure.

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