

Chapter 5

Conclusion

The cost of alcohol consumption can be divided into two component parts. The first is the cost of alcohol production, or the cost of utilizing various resources to produce alcohol. The second is the social cost of alcohol consumption, which can be assessed based on the effects of alcohol-related problems. These problems range from motor vehicle accidents, industrial accidents, liver cancer, esophagus cancer and to alcoholic dependency. Alcohol-related problems can be quantified in terms of money. For example, production loss occurs when one is absent, or unable to work as a result of drinking. It can also be assessed in terms of medical costs related to drinking, or in terms of damage to property because of alcohol abuse.

This thesis aims to study the treatment costs for alcoholism. Thanyarak Hospital, which provides treatment for drug related illness, is the case study. The study divides the costs into two categories – the direct costs and the indirect costs. Direct costs are the costs or resources that are directly attributable to alcoholism treatment and consist of personnel costs, supplies costs, equipment costs, building costs, drug costs and the travel fares of patients including income or benefit of patients foregone due to illness; such as travelling and waiting time costs of patients; loss of income during hospitalization. The value of time of the patients can also be classified into indirect costs. Because the value of their time are indirectly attributable to the service. But this study included the patient time costs in direct costs because the patients time costs were income or benefit foregone directly attributable to receiving treatment. Hence, the patient's time costs can be classified as direct costs or indirect costs depending on the viewpoint of researcher. Indirect costs are income or benefits of relatives have foregone due to participation in the treatment process. These costs are travelling and waiting time costs for relatives.

Information in this study was obtained in many ways. Data concerning personnel was gained from time records, interviews, and the documentation of personnel. Data of supplies and medical equipment were obtained from interviews with staff. Data of patients were acquired from their medical records. The latter involved a random sampling of 96 patients, who completed the course of treatment (21 days), and included both out-patients and in-patients. The number of sample patients are 22 out-patients and 74 in-patients.

The results obtained on the treatment costs of alcoholism for those who completed the course of treatment were 49,948.67 baht per case for in-patients and 3,446.77 baht per case for out-patients. Treatment costs for in-patient alcoholics comprise of direct costs and indirect costs. Direct costs are personnel costs at 12,208.28 baht per case; supplies costs at 322.16 baht per case; equipment costs at 221.14 baht per case; building costs at 26,486.38 baht per case; drug costs at 398.30 baht per case; travelling fare at 1,737.88 baht per case; travelling time costs of patients at 163.53 baht per case; and loss of income during hospitalization at 8,012.97 baht per case. Indirect costs include travelling time costs of relatives at 188.94 baht per case and waiting time costs of relatives at 209.09 baht per case. In the case of out-patients, direct costs are made up of the personnel costs at 226.61 baht per case; supplies costs at 27.10 baht per case; equipment costs at 0 baht per case; building costs at 298.75 baht per case; drug costs 333.73 baht per case; travelling fare 1,188.27 baht per case; travelling time costs of patients at 418.64 baht per case; and waiting time costs of patients at 218.04 baht per case. Indirect costs include the travelling time costs of relatives at 483.69 baht per case and waiting time costs of relatives at 251.92 baht per case. The results of the survey into the treatment costs of alcoholism are shown in table 5.1 as follows:

Table 5.1 Treatment costs of in-patients and out-patients

Type of costs	Out-patients(baht per case)	In-patient(baht per case)
Direct costs		
1. Personnel costs	226.61	12,208.28
2. Supplies costs	27.10	322.16
3. Equipment costs	0	221.14
4. Building cost	298.75	26,486.38
5. Drug costs	333.73	398.30
6. Travelling fare	1,188.29	1,737.88
7. Travelling time costs of patients	418.64	163.53
8. Waiting time costs of out-patients	218.04	0
9. Income loss due to admittance	0	8,012.97
Indirect costs		
1. Travelling time costs of relatives	483.69	188.94
2. Waiting time costs of relative	251.92	209.09
Total costs	3,446.77	49,948.67

The results of the study found the treatment costs of alcoholism for in-patients were more than those for out-patients. Because the in-patients consumed more health care resources than the out-patients did. These resources are the personnel concerned, medical equipment and supplies, including expenses in travelling to hospital. When comparing between services charged for treatment and hospital costs, the results show that they are very different. The services charged are equal to 555 baht per case per course for out-patients and 570 baht per case per course for in-

patients. From calculations, the hospital costs are equal to 886.18 baht per case per course for out-patients and 39,636.26 baht per case per course for in-patients. This is because the calculated hospital costs include the opportunity costs of the personnel concerned and the depreciation and the opportunity costs of capital. From the provider's point of view, not only the costs of activities or treatment programs but the consequences or outcomes of activities are considered also. Patients and relatives costs are much lower than the hospital costs because this study is based on the assumption that patients and relatives costs are expenditure and income foregone due to participation in the treatment process. These costs excluded 1) expenses and income foregone by out-patients during care received at home, 2) expenses and income foregone by in-patient's relatives in travelling and visiting during hospitalization and 3) expenditure and the time spent by family members taking care of the patients at home. Hence, further study should include the costs mentioned above to provide more accurate costs.

The statistical data of Thanyarak Hospital shows that the numbers of alcoholics in 1998 were 585 patients of whom 135 were out-patients and 450 were in-patients. Therefore, the total treatment costs of alcoholism for out-patients are approximately 465,000 baht and the total treatment costs for in-patients are about 22,400,00 baht in 1998. The 1998 total treatment costs of alcoholism in Thanyarak Hospital was approximately 23 millions baht. This amount is only one of the costs of alcohol-related problems in one hospital, and to estimate costs including treatment costs of alcoholism in the whole kingdom and other costs of alcohol-related problems, such as the cost of social response to alcohol abuse and cost of motor vehicle accidents resulting from alcohol abuse, the costs would be very much higher. It can be seen that the consequences of alcohol consumption result in high loss so that related agencies should aware of the importance of the reduction of alcohol consumption. Even though, tax revenue from imported liquor were 2,301.5 millions baht in 1996 and the trend of tax revenue increase so on. It is therefore

questionable whether the economic benefit of alcohol is more than the economic cost.

Finally, this study is cost description that only costs are examined. The results only illustrate that the cost components of treatment for alcoholism are and how much the cost components are (both in-patients and out-patients). The decision as to which treatment programs of alcoholism are best depends on the comparative analysis of alternative courses of programs or health services in terms of both costs and consequences such as cost-minimization analysis and cost-effectiveness analysis.

Limitations

1. The treatment of alcoholic patients consists of 4 stages. They are pre-admission, detoxification, rehabilitation and convalescence and follow up. However, the assessment of the treatment costs for alcoholic patients in this thesis excluded the third and fourth stages. This is because of the lack of information possessed by Thanyarak Hospital. The patients spend around eighteen months in the rehabilitation stage, which uses the principle of work therapy and group therapy. The patients must be ready in body and mind for rehabilitation. Some patients did not have enough time and some patients did not complete the course. This led to some uncompleted data. Moreover, the follow up can cover an extended period of 1 and 5 years. Therefore, this thesis excludes the rehabilitation, convalescence and follow up stage.

2. The assessment of the treatment costs for alcoholic patients did not consider intangible costs; for example, losses due to the psychological impact on patients and attendants, caused by the illness or suffering. Such costs are difficult to estimate.

Suggestions of the further study

1. This study focuses only on the patients who did not have associated diseases or had mild complication diseases such as common colds. However, some alcoholic patients experience serious medical complications, both physical and mental. Gastro-intestinal bleeding, liver disease, alcoholic dementia, and hypertension are examples which require simultaneous additional treatment. Further study should focus on the treatment costs of alcoholic patients who have severe complications. In such cases, the costs could be much higher.

2. The treatment process consists of 4 stages, but this study excluded the third and fourth stages due to the lack of available information and time constraint. Further study should include the third and fourth stages of treatment. The study would then better illustrate the total costs of the treatment process.

3. Besides the treatment costs for alcoholism, there are other costs related to alcohol consumption, such as the economic costs of motor vehicle accidents resulting from alcohol abuse, the cost of fire or crime, and the economic costs of social responses to alcohol abuse. Time limitations forced this study to omit these costs. However, further study involving these cost factors should be conducted in the future.

4. Alcohol consumption results in some benefits and some costs. Examples of benefits include alcohol production as a source of employment, government revenue through excise tax and tariffs, and drinkers may be cheerful and relaxed. However, alcohol consumption has costs too. Costs of alcohol measures not only health care costs but also of the foregone output that results from the consequences of problems such as the cost of motor vehicle accidents due to alcohol abuse, the cost of fire or crime that might be attributable to alcohol abuse, costs of social

responses to alcohol abuse etc. So, further study should be done to assess the relevant benefits and costs and a comparison made between them.

5. The study of treatment costs for alcoholic patients involved only Thanyarak Hospital. But the hospital has branches for the treatment of drug addicts in other regions, namely the drug addict rehabilitation center at Chiang Mai, Pattani, Songkhla, Khon Kaen, and Mae Hong Son. Consequently, similar studies should be undertaken at other medical institutions so that the sample group may better represent the general population.