CHAPTER 2

LITERATURE REVIEW

2.1 Cost Analysis:

Cost is an expressed in term of money, time and the resources describes what is used in a particular period of time in activity or process. the purpose of cost analysis is to analyze efficiency and analyze resource allocation and finally produce costing information for planning and budgeting.

Many kind of cost can be analyzed during the period of cost analysis like total cost, fixed cost, variable cost, average cost, marginal cost etc.

Total cost : It means the total value of the resources necessary for the activity in a given period of time.

Fixed cost : The cost which do not vary with the level of output in a given period of time usually a year.

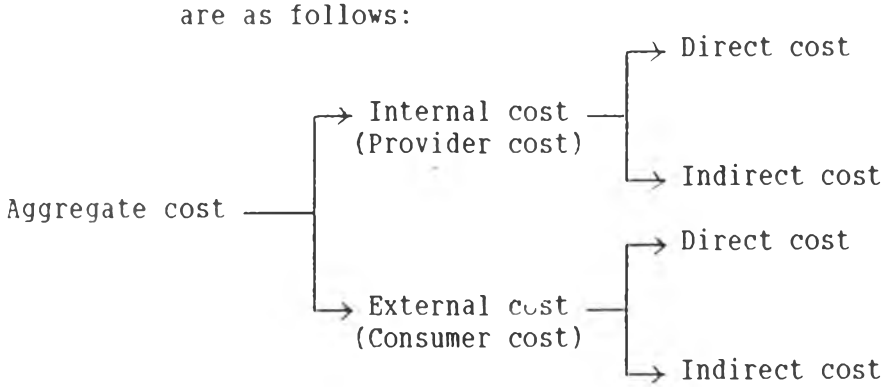
Variable cost: The cost which vary with the level of output.

Average cost : Total cost divided by the total units of output.

Marginal cost: The cost of the additional unit of output.

This study only focus on total cost and the average cost of patients. Cost may be classified according to input, function or activity, level, source and by currency. Cost analysis is important both from providers as well as consumers. It is an examination of how the resources are spent. In providers side cost analysis can help then to understand and explain how fund have been used cost analysis can also help to provider to identify areas where expensescan be reduced.

Figure 2.1 The total cost picture both in provider and consumer side are as follows:



Cost analysis help the provider as well as consumer to understand how fund they have been used and also identify the area where expenses can be reduced. Cost analysis can provide considerable useful information of all kinds of health services. It helps to assess the use of personnel in delivering health care services and the efficiency of putting supplies, transport resources and other input to work.

Cost analysis also help to assessing efficiency. A health program or service delivery unit is more efficient when it provides more beneficial effects from the use of a given set of resources. The aim is to allow health officials to make some judgement about efficiency by examining fairly simple cost presentation. They usually based on cost profiles which show each input in terms of an absolute value and a percentage of the total cost.The use of cost profiles is two different but related way, firstly cost profiles highlight the categories of future studies of efficiency. The larger the cost category the more attention should be given because the potential for saving is greater. The second way to use the cost profiles is to compare the profiles of similar units. Major difference in the cost profiles of similar units encourage to further investigation. Significant difference indicates that there are many ways of restructuring some units to improve the efficiency. Cost analysis to improve efficiency does not stop with the use of profiles. It will also be helpful to calculate the average cost.

On consumer side, direct cost is the cost borne by patient directly for his diet, drugs, and other accessories including transportation to hospital. Indirect cost is the cost borne by the attendant of patient for their food, shelter and other accessories including the transportation to hospital and loss of their earning.

Figure 2.2 Cost of provider as well as consumer for diarrhoeal disease management in hospital level.

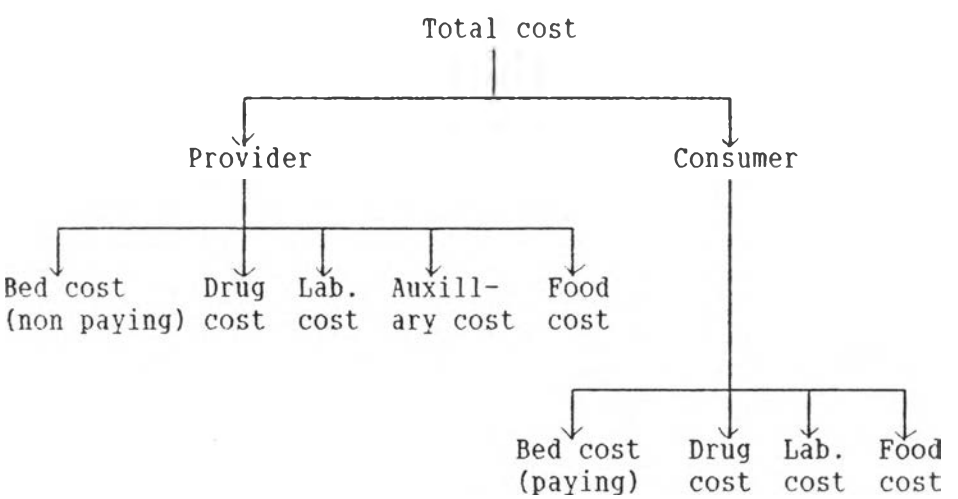


Figure 2.2 shows the cost of providing diarrhoeal disease management in the District hospital. When diarrhoeal patient come to

hospital for treatment they incurred cost in almost all component. On the consumer's side patient incur transportation and time cost to come to the hospital for consultation. Some of those require admission are placed in paying and non paying beds and involves costs both from provider as well as consumer's side. Beds, foods and medicine cost incurred by both providers and consumers. Auxiliary service cost involved on the provider's side. The whole process continues till the discharge of the patient.

Cost analysis is also important for household purpose because the household cost is mainly borne by society providing the services. From the perspective of the society as a whole the cost of obtaining health care and other services are just as pertinent on the cost of producing service.

This study focuses on consumer's cost because of the data on provider's cost are already available in diarrhoeal cases. Many studies on the cost incurred by the providers have been carried out in serving the affected population and also promoting awareness of the management procedure. However consumers the beneficiaries of the health services in the management and control of diarrhoeal disease need to be considered particularly in the view of equity. Another reason is that due to time constrains and limitation this study only focus on consumer's cost.

Cost analysis is relevant to two aspect in all endemic diseases. One is the cost of endemic diseases,in terms of health impact,productivity losses,and as well as health services demands and the cost of implementing control measures. In case of endemic diseases, this analysis serve two separate although inter related purposes. First external comparison of the economic impact is relative to other health and development concerns. Second internal comparison of the relative cost effectiveness of the available options for intervention.(Journal of Tropical Medicine and Hygiene 1992)

Economic analysis in patient side is very important, because health care system involves cost from the patient side also, so indirectly it plays an important role for management of diseases. Many studies for the health economic aspect of diarrhoea have done in the world especially in the developing countries, but very few study about cost analysis of diarrhoea in consumer side. On the consumer side large proportion is for time cost (Somkid 1988).

The main reason for measuring household cost is to obtained a better understanding of user behavior. Knowing the costs that householders bear if they use a service may be help how much services they used. People will decide whether to seek a service for themselves or for someone in their household on the basis of its expected value. If they have to walk too far or wait too long, or pay too high a price they may decide against seeking some or all of the possible services. Where there are alternative types of care, such as traditional healers, the relative costs and benefits of this will enter into the decision (Creese and Parker 1994).

A study in India found that in one week eight patients came from a particular village for treatment, the cost to them would be 64 rupees for transport,a total of Rs 80 for drugs and Rs 32 in wages lost. If on the other hand, the mobile team visited the village to treat the same patients, the cost of transport would be Rs 20 and the cost of drugs Rs 20.5. In this case it was demonstrated that the mobile team would save household costs and apparently delivery costs as well.

Higher costs to the users of health services are sometimes reflected in costs- effectiveness measures. If the cost to patients goes over some household patients may stop using the facility, attendance will fall, and the cost per person treated may will increase while resources will be under used.

The method of measuring household cost for using health services is the way to interview the individuals who attend health centers, hospitals and other facilities, asking them about the household costs associated with their current use of the facilities and also about previous visits. Asking them the reasons for using (or not using) a particular facility rather than available alternatives, and how satisfied they have been with the quality of care. Staff members at the facility might be a good supplementary source for certain information, such as the probable cost in time to the patients of visiting each facility and waiting time. Another source of information would be patient records (Creess and Parker 1994).

Cost in time is especially important. A study of treatment of malaria in Thailand found that about 90% of estimated costs to patients were time costs. Not only the patients but also other members of the household are likely to be involved, spending time carrying for patients or accompanying them to the place where health care is delivered. Cost may also be incurred by people who go to the health facilities but receive no treatment. They may find that the health center is closed, that the drugs they need are not in stock, or they cannot afford to wait. Other time cost include those for taking medication or treating oneself or one's children (e.g preparing and giving oral rehydration salts solutions for diarrhoea).

Time costs may be greater in rural areas because access is often worse in rural than urban areas access to rural government facilities is often particularly limited (Gilson 1988).

Another study reflect the Nigerian experience,they suggests that all the costs of care are assessed in choosing which provider to use. Certainly, poor access is often associated with lower use of care but where access is easier, it seems people will use health services more (Heller 1982).

Another study found poor physical access to health care generates cost additional to the price of care, there may be transport costs, if transport facilities are available and used , there will be time cost possibly including loss of income resulting from the time taken to seek care (Howard 1976).

Cost incurred by patients: Some writers (Bijleveld and others 1977) who have examined the costs of leprosy control but have not considered the costs incurred by patients. Actual costs incurred by the patients for the treatment is difficult to quantify. Generally diarrhoeal patients do not get the treatment at the first stage. When they do not feel better they may getting treatment from some other sources and lastly,when they develop complication they may getting treatment from hospital.

So, with this behavior it is not an easy task to study costs incurred by the patients seeking diarrhoea care and treatment. Change of attendance at the hospital, moving from one to another hoping for better treatment results in higher costs to the patients. These costs must be considered but up until now this point has not been studied.

Cost incurred by the patients depends on the level of hospitals, the severity of disease, knowledge about the disease, and the economic condition of the patients.

2.2 Satisfaction Level:

Thomas (1983) examined the casual relationship between patient satisfaction and the use of health services. He suggested, that satisfaction has both specific and general dimensions and includes both short and long term processes. As a short term process,it probably is related to utilization but also is directly a function of socio-demographic and family characteristics. As a long term process it is probably more independent of utilization and has its roots in the patient- providers interaction. Reciprocal relationships between satisfaction, patient out come, and utilization are likely.

Samlee (1983) also pointed out that, in general, distance is a critical reason for health service utilization in most developing countries. He thought, distance is not a critical issues for under utilization. Lack of attractive services and quality of care, which contributed much more issue for under utilization.

Krongkaew (1983) found that the causes of under utilization of rural health centers are as follows:

a) Lack of faith that local residents have upon rural health personnel.

b) Inconvenient location of health centers, not so inexpensive.

c) Cost of medical services, and the limited health services that these health centers could offer for local patient.

Justice (1981) found that most illness patients delayed seeking professional help and used home remedies instead. These remedies

include herbal treatments and foods to eat or avoid. If the problem continued traditional healers were the next step. According to Justice modern health care services were sought only as a last resort, usually for serious and persistent problems.