CHAPTER II

LITERATURE REVIEW

2.1 Introduction

The purpose of this literature review was to know about cost, expenditure effectiveness, and outcome of treatment of medical intervention and types of costs involved. According to literature there are three types of costs (1) direct cost (2) indirect cost and (3) intangible cost. Further costs could be capital or operational. The available literature also states that cost could be meaningfully spent so as to get maximum social benefit from a program.

No study is available in Bhutan on expenditure in health care area. This study aimed to identify expenditure on free referred care to India and is first of its kind.

2.2 Cost

According Webster's dictionary cost is the amount paid, charged or engaged to be paid for anything bought or taken in barter; charge; expense, hence, whatever as labor, selfdenial, suffering etc is requisite to secure benefits.

Horngreen et al (2000) defined cost as resource sacrificed or forgone to achieve a specific objective. It is usually measured as the monetary amount that must be paid to

acquire goods and services. To guide their decisions, managers want to know how much a particular thing (such as product, machine, service or process) costs.

Creese and Parker (1994) stated that to estimate health program's cost it is necessary to clarify its components. Cost element can be broken down in several ways, as illustrated below. A good classification scheme depends on the needs of the particular situation or problem but there are three elements:

- It must be relevant to the particular situation.
- The classes (categories) must not overlap.
- The classes chosen must cover all possibilities.

Roemer & Aguilar (WHO, 1998) defined quality care as proper performance (according to standards) of interventions that are known to be safe, that are affordable to the society in question, and that have ability to produce an impact on mobility, mortality, disability and malnutrition. The most simplest and comprehensive definition of quality is that used by advocates of quality management: doing the right thing right, right away.

2.3 Economic Evaluation

Jefferson, (1996) stated that an economic evaluation is based on the scarcity of resources. So it is necessary to make choices or make decisions on how to allocate resources. Economic evaluation comes to play when such decisions are made. In economics there are two types of choices to be made; technical efficiency and allocative efficiency.

Economic analysis deals with two characteristics regardless of the activities (including health services)

- It deals with both inputs and outputs and is sometimes called costs and consequences of activities.
- It concerns with choices, because resources are scarce and our inability to provide all desired output, necessitates that choices must and will be made.

2.4 Hospital Cost Allocation

Finkler and Ward (1999) stated that the cost allocation refers to taking costs from one area or cost objective and allocating them to others. There are two types of cost allocation. The first is the allocation of indirect costs within a department to a specific individual patient. The second type of allocation is to associate costs as closely as possible with the patients who caused them to incur. The goal of costs allocation is to associate costs as closely as possible with the patients who caused them to incurred. One of the cost allocation methods is 'Step- Down Allocation' that requires the organization to allocate all cost of non-revenue cost center to all other costs centers, both revenue and non-revenue. The hospital cost allocation is an analysis tool that policy makers, hospital administrators and finance managers can use to improve the performance of a hospital. It can help them in making decisions in effective resource allocation that are always scarce.

2.5 Cost Effectiveness Analysis

Drummond et al. (1998) defined cost effectiveness analysis as one of full economic evaluations where both cost and consequences of health programs or treatment are examined. In order to carryout cost effective analysis, an organization set one unambiguous objective of the intervention and therefore, a clear dimension along with effectiveness can be assessed.

Kamol Ratanakul, (2002) defined four types of cost effectiveness analysis that could be examined:

- Cost per outcome
- Outcome per cost
- Marginal cost per marginal outcome
- Incremental cost per incremental outcome

Cost Effectiveness Analysis summarizes all program costs into one number and all program benefits or effectiveness into second number and it prescribes rules for making decisions based on the relation between the two. The method is particularly useful in the analysis of prevention health programs, because it provides a mechanism for comparing efforts addressed to different diseases and population. The intervention with the lower cost- effectiveness ratio is preferred, that is the alternative that takes fewer resources to achieve the same or greater health benefits.

Gold et al (1996) stated that perhaps the simplest definition is that health services are considered to be effective to the extent that they achieve health

improvements in real practice settings. Thus effectiveness must be distinguished from two closely related concepts:

Efficacy, denotes that how well the intended objectives are realized in ideal setting in which services or treatments are developed and initially tested and appropriateness reflects the broader range of issues considered in deciding whether an intervention should or should not be done, including assessments of the extent to which the expected health benefit exceeds the expected negative consequences of the intervention, as well as considerations of acceptability, feasibility and cost (Leap and Brook,1990).

2.6 Increasing Health Care Expenditure

Today, unfortunately the world faces the reality of increasing health care expenditure though high quality care is technically possible for all people, are expensive than the economies seem to be able to afford. The public service providers practicing in developing countries with low per capita income need to provide high quality care and maximize access to health care given the resources that the economy can hold. As health care providers the primary commitment is to provide the best care to the patients.

Continuous increasing of medical expenditure outweighs economic growth. It is also increasing at a rate that is five times the rate of inflation. (Japan, MHLW, 2004) The developed world has already initiated health reforms to meet the increasing health care expenditure. According to annual report on Health and Welfare (1999), the

Government of USA spends 14% of GDP ($ 4,090 per capita medical expenditure), Germany 10.4% of GDP ($ 2677 per capita expenditure), Switzerland 10.2% of GDP ($ 3,584 per capita expenditure), France 9.9% of GDP ($ 2348 per capita expenditure), Netherlands 8.5% of GDP ($ 1,975 per capita expenditure) Japan7.3 of GDP ($ 2,453 per capita expenditure) as health care expenditure.

The industrialized countries have largely preserved their systems of near universally accessible as in Canada, United Kingdom and New Zealand. Other countries have begun to shift payment responsibilities for longterm care to patients and family members (Japan, MHLW, 2004).

The United Kingdom has a National Health Care Service since 1948 (Myatt 2001). The British Government is purchaser and provider of health care and retains responsibility for legislation and general policy matters. The Government decides on an annual budget for the NHS, which is administered by the NHS executive, regional and district health authorities. The NHS is funded by general taxation and national insurance contributions and accounts for 88% of health expenditure. Complementary private insurance involving both profit and nonprofit insurers cover 12% of the population and accounts for 4% of health expenditure

While reviewing the literature on health care expenditure in developing countries it is found that Bhutan spent 7 %of its GDP on health care sector, (National 8th 5 Year Plan Bhutan, 2002) Thailand spent of GDP 6% (New Health Insurances Policy in Thailand, 2001), India spent of GDP5.1%, Nepal 5.2% of GDP, Laos 3.1% of

GDP, Srilanka 3.6% Indonesia 1.8% and Bangladesh 3.8 (UNDP, 2003). This shows that health care expenditure of Bhutan when compared with developing countries is much higher and may continue to rise in near future for which the Royal Government is required to look at cost containment ways. Increase in health care cost has been steady with the introduction of modern health care services in Bhutan since 1960s. The Royal Government of Bhutan spent Nu 13 million in 1999, 28 million in 2000, 37 million in 2001, 48 million in 2002, 56 million in 2003 and 65 million in 2004 for free referred care to India (DWNRH, 2004).

The literature review assisted in knowing types of expenditures, means of calculation health care cost and expenditure, outcomes and optimum utilization of resources to get maximum benefits from a particular program. It also taught to reduce expenditure in health care services so that the program succeeds and sustains.