# CHAPTER 5

#### CONCLUSION AND RECOMMENDATION

# 5.1 Conclusion:

During the period of this study at TB Centre, as many as 96 new cases were reported. A crude estimation of new cases per day revealed that on an average 20 cases were reporting at this service point. Initial choice of the patients following their perceived symptom showed that they prefer to utilize the service of lower level facilities (32% drug store and 23% BMA clinic). Only 11 percent of the patients preferred to report at the formal care service points directly. The reason for seeking informal care was varied between patients. Provider's behavior seems to be the contributory factor influencing the choice of service points. This was evident from the proportion (27%) of patients who preferred to consult private clinic where the care is anticipated to satisfy the patients.

The mode of travel was found to depend on the community and condition of the patients. While majority of the patients in urban area used bus and car, the people from suburban areas visited the initial service points either by bus or on foot.

The patients performance in terms of average time delay from the onset of perceived symptoms to the time of their reporting at the formal care service points was observed to be 34 days. However, the delay was as long as 57 - 60 days among 21 % of the patients. When compared to an earlier study (Kornkeo 1988) an improvement in patient performance was noticed and yet steps are required to narrow down the gap between the perceived symptoms and seeking formal care.

This study result showed that the average cost to the patients prior to the formal care was baht 1729, which was observed to be substantially higher in view of their income. Costs (financial) on consultations and drugs for the treatment prior to formal care were only 24 % of the total cost. The economic (opportunity) cost due to travelling time and work loss was the major cost component, constituting about 70% of the total costs prior to the formal care. Based on the days of work lost, the economic loss to the patients was calculated which comprised about 48 % of the total costs. This cost can easily be reduced with increase patient's performance.

There was a significant relationship (p = 0.04) between patients' performance in terms of time delay and costs to the patients prior to the formal care. However, only 5% of the distribution is expressed by the slope (R-squared value = 0.05). This could be due to the bias in reporting the time delay by the patients (recall error). This may be corrected by constricting the time gap and restricting the study with samples whose time gap is with in reasonable recall period. Influence of factors other than those studied in the present attempt may also be responsible for such an trend. Further studies may be useful to delineate this issue.

Then collected possible variables were put into the regression analysis. Result showed that there was statistically significant relationship between cost to the patients prior to the formal care and monthly income of the patients. But only 3% variation of costs to the patients can explained by monthly income of the patients (R squared = 0.03).

### 5.2 The Limitation of Study

Since the present study was a clinic based cross sectional study, the possibility of over or under reporting could not be avoided while costing patients costs. Such difficulties could be overcome by conducting household surveys. But, in the event of low prevalence of disease such an survey will not be feasible.

The frequency distribution of samples in relation to time delay showed a skewed trend. This may interfere in drawing general conclusions and this could not be avoided in short-term studies. Prestratified sampling may be useful to overcome this problem. However, low attendance at formal care units may be an obstacle to complete the study within a reasonable study period.

In this study many cost components were not included, e.g. food cost, house look after cost, child care cost, lodging cost, waiting and treatment time cost. Theoretically, inclusion of these costs would be more appropriate. However, due to practical constraints, experienced from pretest process in collecting information through a lengthy questionnaire, such factors were not included in the final data collection and therefore not included in the present study. In view of this the following assumptions were made to determine the cost components:

- Patients return to the home on the same day.
- Food costs are same if they eat at home and outside.
- There is no waiting line for treatment in informal service points.
- House look after and child care work is substituted by other under employed or unemployed family members.

- In fact if patients loss few hours in seeking care, they are not allowed to work, in this case one can loss the whole day income. This time costs could not valued without the appropriate norm.

Due to want of time, primary data could not be obtained from informal care points which would cover the patients who did not visit the formal care units. Language was a barrier between interviewer and researcher to have a close interaction. Also, many related publications are in local language which was a constraint in updating literature.

# 5.3 Recommendations:

Based on the results of the present study, the following recommendations are drawn:

Case finding and treatment programme has to be decentralized and integrated with the health centers' activities. This approach is expected to reduce the social distance in relation to geographical features of the area and consequently the costs for the patients in seeking care. An improved performance by the patients and an effective coverage could be achieved.

Health education need to be intensified to improve the patients performance. Health awareness is the central theme for the success of any public health programme which depends primarily on the consumer's behavior. Programmes can be planned to cover the target groups (sociologically and economically weaker section) in particular.

The following issues may be dealt by conducting further studies:

i. Transmission costs to the community

- ii. Economic cost of disabilities due to the tuberculosis.
- iii. Cost effectiveness between integrated and vertical approaches of case finding and treatment.
- iv. Unit cost of treatment of AIDS and HIV related tuberculosis.
- v. Studies should be conducted on equity, efficiency of the TB treatment programme

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