

CHAPTER I



INTRODUCTION

The interaction between tuberculosis and HIV has implications for the public health approach to tuberculosis control among HIV-infected people. Untreated HIV infection leads to progressive immunodeficiency and increased susceptibility to infections, including tuberculosis. Tuberculosis in high HIV prevalence populations is a leading cause of morbidity and mortality, and HIV is driving the tuberculosis epidemic in many countries including Thailand. This burden of HIV and TB co-infections requires an urgent need for interventions, including possible implementation of preventive therapy for tuberculosis among HIV-infected individual.

In Chiang Rai, Thailand, 9-months INH preventive therapy among asymptomatic HIV-infected individuals are feasible and well-tolerated. However, because of a poor compliance due to long treatment, an alternative short-course tuberculosis preventive regimen is needed. In making a decision on which treatment should be standard, evaluating cost-effectiveness is one of the tool make informed decision and is necessary. We have limited of resources- people, time, money, facilities, equipment, knowledge, etc., so choices must and will always be made concerning for economic. Without systematic analysis, it is difficult to identify clearly the relevant alternatives. Therefore, the economic evaluation in term of cost-

effectiveness will be introduced. To address these problems, an essay, a proposal and a data exercise were written as a major content in this thesis. This following will briefly explain in each paragraph.

In the chapter II **essay** describes background of the problem and gathers the public health information which related with cost-effectiveness of treatment of latent tuberculosis infection such as TB and HIV epidemiology, intervention to control TB in high HIV prevalence, treatment of LTBI including treatment regimen, drug side effect, how to conduct treatment of LTBI and what-why-how we need economic evaluation for treatment of LTBI.

In the chapter III **proposal**: Public health information related with cost-effectiveness of treatment of LTBI in essay come up with clear research question that is, Which regimens is more cost-effectiveness of treatment of latent tuberculosis infection(LTBI) for preventive tuberculosis disease between 9-month Isoniazid and 2-month Rifampin plus Pyrazinamide from both perspectives, hospital and patient to HIV-infected person ? Therefore, this chapter will explain about how to answer this question by deal with the rational and justification of the project, the objective, research methodology, ethical consideration and also the detailed activity plan with required budget estimation for conduct the research.

In the chapter IV **data exercise**, the propose of this data exercise was assessing and gathering the basic information about INH preventive therapy which was performed in four hospital in Chiang Rai province in order to improve and develop

proposal before implementation the clinical trial of TB preventive therapy. The specific objective is to assess the effectiveness of TB preventive therapy in term of the treatment outcome of INH preventive therapy 9 months and to identify the common factor affecting default of INH preventive therapy(IPT) in HIV infected person in 4 community hospital, Chiang Rai province, Thailand.

In the chapter V **presentation**, the main concept of the study will be presented to the thesis committee by using Power Point slides show.

Chapter VI is the **annotated bibliography** provides a brief overview of major books or journals used for counseling and writing this study.