

CHAPTER 1

INTRODUCTION

Cure rate of tuberculosis is the most important indicator of tuberculosis controls and prevention implemented in every nation worldwide. It is different from an achievement indicator of similar projects for other communicable diseases, which emphasizes mainly on surveillance and prevention such as of Dengue hemorrhagic fever, Leptospirosis and Severe diarrhea, etc. According to this reason, the strategy used worldwide to eradicate tuberculosis or to minimize its severity for not becoming public health problem, emphasizes on treatment outcome, especially in new smear positive pulmonary tuberculosis patients who are in infectious stage which are the main sources of transmission (WHO, 1995).

Although measurement of achievement of tuberculosis controls prioritizes the treatment outcome as the most important or key indicator, it does not mean that other preventive measures are less important, for instance BCG vaccination in children can reduce severity of the disease in children but not effective for adults. Good ventilation can help reducing the transmission but only to a certain extent. However, if there are still sources of disease such as new smear positive pulmonary tuberculosis patients stay in the area, the transmission of the disease then still continues. Therefore, tuberculosis

is one of the most current dreadful diseases as its nature is air-borne and transmittable through the air every human needs to breathe. This makes it difficult to prevent the TB pathogens from entering human body as a statement said, “person without tuberculosis is the one who never inhales the air from outside and/or the one who just starts to breathe”. These refer to only foetuses and newborns.

From previous preventions and controls of tuberculosis, the trend of TB transmission had obviously declined in all regions worldwide, almost to the state that the disease was no longer public health problems. However, after the increasing pandemics of HIV/AIDS all over the world, tuberculosis has become an emerging disease (WHO, 1996). There has been increasing problems of Multi Drugs Resistant Tuberculosis: MDR-TB. These problems are mostly caused by human practices, for example, health care workers do not prescribe treatments correctly, patients are not compliant to continuous treatment, etc. These create a lot of impacts and Thailand is one country facing with these problems (Anti –TB association of Thailand, 2000).

Even with the fact that tuberculosis is a curable disease, unless the problems of MDR-TB are solved urgently, the tuberculosis controls will definitely be unsuccessful. The problems of tuberculosis will become greater and greater and so globalize. World Health Organisation (WHO) recommended a new approach of tuberculosis control called “Directly Observed Treatment Short Course: DOTS” for each country to implement, to ensure that patients actually swallow their anti-TB drugs. This approach comprises of 5 main components, all of which are compulsory for each implementing country to follow for the purpose of preventing consequent problems of MDR-TB.

Quite a few of both developed and developing countries have implemented this approach and gained satisfactory results. This new approach has made the cure rate to exceed 85 percent, which achieved the standard goal of WHO in reducing tuberculosis problems.

According to the tuberculosis control in Thailand from the past to present, the situation of tuberculosis here is not different from the other regions. Cure rate, as well as other rates, are still below expected goals of the Tuberculosis Division as shown in Appendix 12. Department of Communicable Disease Control, Ministry of Public Health have integrated the DOTS approach into tuberculosis controls by assigning all Regional Tuberculosis Centers nationwide to implement and cover all provinces within the year 1997-1998 (covering 2 districts for each province) and ultimately cover all districts by the year 2001. Roi-Et Province is one of the 7 provinces in the servicing area under supervision of Center for Communicable Disease Control - Region 7 (CDC Region 7), located in Ubonratchathani Province, where DOTS approach has been implemented and covered the whole province since late 1996. Even with the monitoring of both the Region 7 Tuberculosis Center and the WHO, the tuberculosis cure rate was still lower than WHO set criteria of greater than 85 percent determinedly as a successful plan, the data as shown in appendix 6. (Roi – Et annual report, 2000).

Considering the 5 component set by the WHO, DOTS approach in tuberculosis control and prevention in Roi-ET province, 4 of them were found to be supported and controlled by the government and were easy to manage. The other criterion difficult to implement was the direct observation of the actual anti-TB drugs swallowing of

patients throughout treatment period of 180 days, as it involved persons from many sectors, for instances, government officials, patients and relatives.

Based on principles, guidelines and recommendations of Ministry of Public Health, persons who are most reliable in observing and control anti-TB drug administration of tuberculosis patients are public health staff, village health volunteers and patients' relatives respectively. Reviewing the project operation of DOTS approach in Roi-Et Province, less than 2 percent of health volunteers supervised and monitored the drug administrations of patients in comparison to patients' relatives who dominated 80 to 90 percent of doing this. It was quite a surprise when considering that there was one village health volunteer per 8-15 households working in primary health care system of Roi-Et province. The principle strategy for development primary health care in Thailand involves community participation in order to change health behaviours. Government officials only provide supports and guidance. Communicable disease control in community is one element of the primary healthcare works. Therefore village health volunteers in each community or village should participate in the project to decrease problems of tuberculosis in the community.

In this study, the author emphasized the importance of village health volunteers who are representatives of Ministry of Public Health in community levels and play important roles in public health work development, especially the tuberculosis controls which impact the health of people in their community. It had been integrated into primary health care system by training of village health volunteers were as direct observers for anti-TB drug administrations of new smear positive pulmonary

tuberculosis patients in the study area of Roi-Et province using DOTS approach. As recommended by WHO and Thai MOPH, the DOTS approach was implemented with face to face education for all new smear positive tuberculosis patients in each village who meet inclusion criteria. This was to achieve the goal to improve tuberculosis control in Roi-Et province and to elevate the cure rate in regional and national levels upwardly.