

## **CHAPTER V**

### **Presentation**

On 23 February 1998 I defended my thesis on the topic, “ Directly Observed Treatment Short-Course (DOTS): A Strategy to Increase the Cure Rates Among the TB Patients in Nepal” before the examination committee. The presentation was divided into four parts.

I presented the issue and the conclusion. Then I presented the reasons with evidences. I presented the need to increase the cure rate. I presented the definition of DOTS and the benefits of DOTS. Then I compared the DOTS strategy with other available strategies.

In the proposal part I presented the alternatives of DOTS to be implemented in village Girbari of Nawalparasi district. The study design and the methodology was presented.

Data exercise was done in Choburi province. Findings were presented. Altogether 15 slides were presented and following the presentation questions from the examiner were answered.

Directly Observed  
Treatment, Short-Course  
(DOTS): A strategy to  
increase the cure rates in  
NTP Nepal

**Issue. Conclusion.**

Issue: How the low cure rates in the  
NTP can be raised?

Conclusion: DOTS can raise the  
cure rates from 50 % to 85%

- Infects 10-20 people per year
- Only 5-10 % develop the disease during the lifetime
- But if one is infected with TB and HIV, the risk of developing the disease increases by 10 % each year.

## TB leading killer

- TB is leading killer of youth and adults
- TB is leading killer of women
- TB creates more orphan than other infectious diseases
- TB kills more adults each year than AIDS, malaria, and tropical diseases combined
- TB is the leading killer of HIV positive people

## Global major public health problem

- One person is infected per second
- one third of the world's population is infected (1.9 bill.)
- 3 million people die annually
- Affects Young and productive age group

- 45 people die daily from TB (16,000)
- 20,000 people develop sputum + TB annually
- 60 % adult population is infected TB (9 mill)
- Annual rate of TB infection (ARTI) is 2.2
- Incidence of sputum smear(+) is 110/100,000
- Prevalence of sputum smear(+) is 200-300/100,000

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I need to cure a TB patient.

- to prevent TB deaths
- to reduce the human suffering
- to reduce the social and economic loss
- to stop the transmission (to prevent new infection)

## Directly observed treatment short-course(DOTS)

- **DOTS is someone observes the patient and ensures that patient completes the treatment.**
- **Treatment can be supervised by the health worker, family member, community leaders, etc**

## Benefits of DOTS

- **Cures the patient**
- **Prevents new new infection**
- **Stops MDR-TB**
- **Cost effective**
- **community based**
- **extends lives of AIDS patient**
- **Protects the workforce**
- **stimulates economies**

### Research Question

In Koluwa PHC of Nawalparasi district, does delivery of DOTS by treatment supervisors with community participation given to TB patients in village Girbari result in a 25 % increase in cure rate compared to DOTS by supervisors in TB patients in Koliya village attending the same PHC.

### General Objectives

- 1. To improve the cure rate through improved adherence and thus reduce the morbidity and mortality.

### Specific Objectives

- 1) To implement two intervention programs, one of which is DOTS by treatment supervisors and the other is DOTS by treatment supervisor with community participation in regards to increasing the adherence to treatment.
- 2) To compare the results of DOTS by treatment supervisors and DOTS by treatment supervisors with community participation in regards to cure rates and adherence to treatment
- 3) To determine the most effective intervention and recommend to the NTP (National TB program)

## *Research Methodology*

- Perspective cohort
- Two villages chosen for the study
- One village will have DOTS by treatment supervisors and another will have DOTS by treatment supervisors with community participation
- followed for 8 months and outcome will be measured (cohort analysis)





- Both sexes
- 15 years and older
- Newly diagnosed with at least 2 sputum smears positive
- Never treated before
- Able to find a treatment supervisor
- sign an informed consent

## Exclusion criteria

- Treated for TB
- Allergy to TB drugs
- Pregnant Women
- Has associated diseases like DM, cancer, HIV
- Extrapulmonary and relapse cases

TREATMENT SUPERVISORS

- Anyone in the family,
- wife
- husband
- daughter
- son
- daughter-in-law
- son-in-law
- If no one then a neighbor

## Monitoring Compliance

- **Pill count**
- **DOTS card**
- **Urine check**
- **Sputum examination**
- **Surprise visits**
- **Cohort analysis**