

**“The Case Finding Trends of New TB Cases in Almora District in reference to NSP – NSN Ratio and PTB – EPTB Ratio and An Insight Into The Effects of ACSM Activities Upon These Trends”**

A dissertation submitted in partial fulfillment of the requirements  
for the award of

**Post-Graduate Diploma in Health and Hospital Management**

by

**Dr. Tapan Jyoti Kalita**



**International Institute of Health Management Research**

**New Delhi -110075**

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**Under the guidance of**

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# Abstract

**Introduction** TB or Tuberculosis is an infectious disease caused predominantly by Mycobacterium Tuberculosis. Tuberculosis can be Pulmonary or Extra-Pulmonary. Pulmonary tuberculosis is further sub-divided into Smear-Positive and Smear-Negative cases. This study probes into the case finding trends and the discrepancy in the ratios of case detection rates of NSP and NSN cases and that of PTB and EPTB cases, in reference to the RNTCP standards; and an effort has been made to find out the probable factors leading to it, from the perspective of the RNTCP provider/staff and Programme personnel. The study also incorporates an element of the effects of ACSM activities on the case finding trends either at indicator level or process level.

**Setting** This study is based in the District Almora, in Uttarakhand. Almora is a hilly district in the Kumaon region of Uttarakhand. The DTC is located in Almora Town. There are 3 TUs in the District, located in Almora, Ranikhet and Bhikshyasen, and a total number of 14 DMCs are there in the District.

**Background** The ratio of New Smear Positive Cases to The New Sputum Negative Cases should be 1:1, According to RNTCP Standard, It means out of all the newly diagnosed cases, at least 50% of cases should be Sputum Positive. Any discrepancy in this ratio is a matter of concern, and is reflective of inadequacy of a number of factors, specially adequate radiological and other diagnostic services. This study is a Retrospective Record Based Study based on the records of last 8 quarters ( 2 years) in Almora District in the state of Uttarakhand, and through this study, I am expecting to come up with some valuable information about the case finding trends of New TB cases, specially in context with the ratio of New Sputum Positive Cases and New Sputum Negative Cases, and also the ratio of New Pulmonary Cases; to observe the Discrepancies in the ratios and to find out the probable reasons for these discrepancies from the perspective of RNTCP Programme Personnel and Local RNTCP Staff/ Provider. This study also incorporates the assessment of the intensive ACSM activities in the district that have been conducted under the RNTCP - ACSM strategy and the various ACSM activities Conducted in the District by The International Union Against TB and Lung Disease and MSS, as a joint initiative, under the aegis of Global Fund Round 9 Project under stop TB Partnership ; and

analysis of the effects of such activities on New Case Finding Trends either at process level/indicator level.

**Study Objective** The general objective is to study the case finding trends of New TB cases in context with NSP – NSN ratio and PTB – EPTB ratio and the effect of ACSM activities on such trends.

To put it in a more specific way, this study aims at To highlight the discrepancies in the study finding and analyze the Probable causes of these deviations.

**Design** This study is a mixed study consisting of both quantitative and qualitative components – The initial Phase1 is a Secondary Data based consisting of Retrospective chart review , data are based on the Retrospective data or record of the last 8 quarters and the subsequent Phase 2 consisting of Qualitative study based on Unstructured interviews with the state, district and sub-district level RNTCP staff. The target Data comprised of the case finding from 1<sup>st</sup> quarter 2009 to 4<sup>th</sup> quarter 2010, in terms of the reporting cohorts. The source of the data was primarily the TU wise case finding report and the TB register entries of the corresponding cohorts. For the qualitative study, around 15 RNTCP staff and Programme personnel were considered for In-Depth Interview using an Unstructured Questionnaire containing 10 Open-Ended Questions.

The data from the initial secondary study were then compiled and analyzed using Microsoft Office Excel software. The analysis included quarter – wise computation of Annualized Case Notification Rate, Case Detection Rate, Ratio of NSP : NSN and that of PTB : EPTB, among all new TB cases. The measurements thus obtained were then compared to the RNTCP standards and the variations found were further probed by the qualitative study. The findings from the interviews were summarized and finally, effort has been made to come up with a set of conclusions.

**Conclusion** The CDR of NSP , which is a performance indicator for RNTCP varies between 47 to 48 during last two years. The NSP : NSN ratio in case finding trends reveal that there is significant discrepancy in this ratio in all the 8 quarters in last two years, as compared to the RNTCP standard of 1:1. This ratio for Almora District at the end of 4<sup>th</sup> quarter, 2010 is 4:1.

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## Abbreviations

ACSM	Advocacy, Communication and Social Mobilization	STC	State Tuberculosis Cell
AIDS	Acquired Immuno-Deficiency Syndrome	STDC	State TB Training and Demonstration Centre
ARTI	Annual Risk of Tuberculosis Infection	STLS	Senior TB Laboratory Supervisor
ASHA	Accredited Social Health Activist	STO	State TB Officer
CTD	Central TB Division	STS	Senior Treatment Supervisor
DMC	Designated Microscopy Centre	TU	Tuberculosis Unit
DOTS	Directly Observed Treatment Short Course	WHO	World Health Organization
DST	Drug susceptibility Testing	CBO	Community Based Organization
DTC	District Tuberculosis Centre	PP	Private Practitioners
DTO	District Tuberculosis Office	CDR	Case Detection Rate
IEC	Information, Education and Communication		
IRL	Intermediate Reference Laboratory		
IUATLD	International Union Against TB and Lung Diseases		
LT	Lab Technician		
MOTC	Medical Officer Tuberculosis Control		
NGO	Non-Government Organization		