

Revised National Tuberculosis Control Programme

Social Action Plan

(Including the Tribal Action Plan)

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Executive Summary

The Revised National Tuberculosis Control Programme (RNTCP), implemented since in 1993, is a part of the Government of India's (GoI) National Health Mission. The GoI has been supported by the World Bank with financing of US\$ 115 million (1997-2004) and US\$ 179 million (2006-12) and technical support to strengthen RNTCP and its delivery. In the follow up of this, the Government of India is in dialogue with the World Bank to continuing this partnership in its efforts to eliminate TB from the country, envisaged in the National Strategic Plan (NSP) for RNTCP (2012-2017). The relationship between TB and poverty is known: the poor, vulnerable, and marginalized communities- tribal, rural, and urban slum dwelling people are affected disproportionately by TB with severe financial consequences. With this in view, RNTCP has been designed as a socially inclusive program aimed at reaching the unreached.

A **Social Assessment** was undertaken in 2005 and a Tribal Action Plan was developed with measures to better serve vulnerable and marginalized groups in tribal and hard reach areas. A **follow-up Social Assessment** was carried out in 2011 to identify and bridge gaps in and barriers to full utilization of RNTCP services by the marginalized and vulnerable populations. This Study informed strategies spelt out in the NSP (2012-17) to ensure universal access to quality TB diagnosis and treatment services.

This document presents the **Social Action Plan** including the **Tribal Action Plan** (TAP) as incorporated in the NSP (2012-2017) and reflected in several guidelines and training modules developed by RNTCP to sensitize service providers towards the poor and vulnerable, especially in the pursuit of assured, early, accessible good quality care for all TB patients in a community. This Social Action Plan is an outcome of **stakeholder consultations** carry out for the **Social Assessment** (2011), **national consultation** held in Delhi to finalize the NSP (2012-2017) in 23rd July 2012, and **follow up consultations** held at Delhi on October 24, 2013 and at Phulbani, Odisha on November 4, 2013 to take feedback on the draft Social Action Plan. <u>This Social Action Plan with the TAP meets the requirements of the Bank operational Policy 4.10</u>.

The Plan identifies migrants and tribal groups as difficult to reach populations for which gender sensitive approaches will be pursued to provide appropriate, accessible, acceptable and affordable RNTCP services. Identified mechanisms include strengthening of referral linkages for seamless provision of services, especially for migrant populations; use of communication approaches specific to geographic areas and social/cultural contexts; modification of service delivery and budgetary norms to make services more affordable and accessible to special groups; sensitization of providers to the needs of special groups through training and retraining; and involvement of local practitioners/NGOs for provision of care, awareness generation etc.

Annex-1 to the Social Action Plan provides an **update on steps taken/planned to address issues raised in the Social Assessment of 2011** and Annex-2 presents the **Tribal Action Plan** (2005) which RNTCP will continue to implement in line with NSP (2012-2017).

1.0 Introduction:

Tuberculosis was declared a global public health emergency in 1993, when an estimated 7-8 million cases resulted in 1.3-1.6 million deaths annually, worldwide. With a rising global population, the disease too has continued to grow with approximately 8.8 million incident cases as of 2011.¹ Of the 22 countries that account for 80% of the worldwide burden, India ranks first in terms of total numbers of incident cases with more than 2 million new cases added each year and 270,000 deaths annually.² As the disease becomes resistant to the standard medicines due to misuse of anti-TB drugs and interrupted treatment, drug resistant TB is becoming a bigger challenge for India, with implications for the rest of the world.

Despite a three decade long run (1962-1992), Government of India's National Tuberculosis Program met with limited success in addressing the epidemiology of TB in the country. Consequently, in 1993, Gol revamped its strategy for TB control with the Revised National Tuberculosis Control Program (RNTCP), which piloted the internationally recognized Directly Observed Treatment Short course (DOTS) methodology in five states of India. The success of the pilot, prompted the Gol to expand the program to all districts of the country in 1997. RNTCP demonstrated remarkable results, by 2004, having successfully expanded coverage of DOTS treatment to all districts of India and meeting the global targets for case detection and cure rates (70% and 85% respectively). In 2006, a second phase of RNTCP was initiated, which focused on consolidation of all planned activities, enhancing coverage to address special groups so as to remove inter-district disparities with respect to case detection and cure rates, and initiated multi-drug resistant (MDR) TB services. Since 1997, RNTCP has screened over 55 million people and initiated treatment for over 16 million TB patients.

In its efforts to control TB, Gol has been supported by the World Bank with financing of US\$ 115 million (1997-2004) and US\$ 179 million (2006-12) and global technical expertise and knowledge to strengthen RNTCP and its delivery.

1.1 Social Context: TB—Disproportionate Burden on the Vulnerable:

The relationship between TB and poverty has been much described with the poor, vulnerable/marginalized communities known to bear a disproportionate burden of the disease and severe financial consequences. Studies from India have also reported the increased prevalence of TB among such population groups, with data indicating that about 64% of patients taking treatment under the RNTCP, belonging to poor economic strata.³ Another study based on an analysis of NFHS 2 data reports that TB prevalence is greatest among the scheduled tribe women (2.63%). Living conditions also had a bearing on the prevalence of the disease. Factors such as living in *kutcha* houses and use of smoke-causing fuel for cooking are significantly linked to the prevalence of TB.⁴ It is reported that the

¹ Regional TB statistics. World Health Organization, 2011.

² Global Tuberculosis Report. World Health Organization, 2013. Geneva.

³ Muniyandi M, Ramachandran, Balasubramanian, Narayanan. Socio economic dimensions of tuberculosis control: review of studies over 2 decades from Tuberculosis Research Centre. J Commun. Dis. 38 (3)2006: 204-215.

⁴ Kaulagekar A, Radkar A. Social Status makes a difference: Tuberculosis scenario during National Family Health Survey – 2. Indian J Tuberc 2007; 54: 17-23.

economic cost of illness due to TB in resource poor settings exceeds 10 percent of the household income. Such populations, when afflicted with TB, struggle to cope with the catastrophic economic costs and loss of productivity.⁵ RNTCP has been successful in bringing down the cost of TB treatment from Rs. 5,986 to Rs. 1,398. Studies report that the programme is reaching the poor and could be an effective part of an anti-poverty approach to development; however, some marginalized groups such as tribal populations, rural poor and urban slum populations are yet to receive the full benefits of the programme.⁴

1.2 Social Dimensions of RNTCP—a socially responsive programme:

The RNTCP is a part of the Gol's flagship health program—the National Health Mission, previously known as the National Rural Health Mission (NRHM), and the TB diagnostic and treatment services are integrated in the government health system nationwide. RNTCP contributes to the National Health Mission's overarching goal of 'improving availability of and access to quality health care by people, especially those residing in rural areas, the poor, women and children'.⁶ The RNTCP's National Strategic Plan adopts the objective of "universal access to quality TB diagnosis and treatment for all TB patients in the community."⁷ The National Strategic Plan identifies special groups for which special mechanisms are deployed to make services accessible and acceptable. Migrants and tribal groups have been identified as difficult to reach populations for which gender sensitive approaches will be pursued to facilitate the provision of appropriate, accessible, acceptable and affordable RNTCP services. Identified mechanisms include strengthening of referral linkages for seamless provision of services, especially for migrant populations; use of communication approaches specific to geographic areas and social/cultural contexts; modification of service delivery and budgetary norms to make services more affordable and accessible to special groups; sensitization of providers to the needs of special groups through training and retraining; and involvement of local practitioners/NGOs for provision of care, awareness generation etc.⁸ In its second phase, 2006-12, RNTCP as a member of the Stop TB Partnership⁹, adopted all components of the Stop TB Strategy into its program. Stop TB Partnership is strongly focused on universal access to equitable, accessible and quality care, adequately reflected in its objectives which are to

- achieve universal access to high quality diagnosis and patient centered treatment;

⁵ Russell S. The economic burden of illness for households in developing countries: A review of studies focusing on malaria, tuberculosis, and human immunodeficiency virus/acquired immunodeficiency syndrome. Am. J. Trop. Med. Hyg., 71(Suppl 2), 2004, pp. 147–155

⁶ Mission Document of NRHM: <u>http://www.nird.org.in/brgf/doc/Rural%20HealthMission_Document.pdf</u>

 ⁷ Government of India (2012) "Revised National Tuberculosis Control Program: National Strategic Plan for Tuberculosis Control, 2012-17," Central TB Division, Ministry of Health and Family Welfare, New Delhi.
 ⁸ Strategic vision for TB control for country up to 2015:

http://www.tbcindia.nic.in/pdfs/Strategic%20Vision%20for%20the%20country%202005-2015%20%20Final.pdf

⁹ A unique international body of over 1000 partners, comprising international and technical organizations, government programs, research and funding agencies, foundations, NGOs, civil society, community groups and the private sector, operating through a secretariat hosted by WHO, Geneva which is transforming the fight against TB in more than 100 countries; <u>www.stoptb.org</u>

- reduce the human suffering and socioeconomic burden associated with TB;
- protect poor and vulnerable populations from TB, TB/HIV and multidrug resistant TB; and
- support development of new tools and enable their timely and effective use.

A patients' charter for TB care¹⁰ has been developed and adopted by RNTCP, which defines patients' rights in terms of care, dignity, information, choice, confidence, justice, organization and security provided. Additionally, patients' responsibilities to the programme too are enumerated.

1.3 Social Assessment

A social assessment undertaken in 2005 informed the development and deployment of a Tribal Action Plan¹¹ which defined several actions undertaken to ensure inclusion of vulnerable and marginalized groups in equitable and accessible RNTCP service delivery. A follow-up social assessment¹² was undertaken in 2011 to appraise the gaps and barriers to full utilization of RNTCP diagnostic and treatment services by the marginalized and vulnerable populations.

Objectives: The aim of this study is to explore the gaps and barriers associated with full utilization of the diagnostic and treatment services under the Revised National Tuberculosis Control Programme (RNTCP) by the marginalized and vulnerable groups; and to recommend strategies for improving programme protocol and strengthening the programme interventions.

Methods: A review, addressing the social context, cultural practices, economic circumstances and behavioural patterns that influence the care seeking of TB diagnostic and treatment services among specific marginalized groups, was performed. In-depth interviews and focus group discussions were conducted to collect qualitative data to learn about the perspectives and experiences of the community regarding tuberculosis and the associated control efforts. 128 in-depth interviews (IDIs) and eight focus group discussions (FGDs) were conducted across eight districts in India, which were divided into two groups – tribal districts and districts with a large slum population. The IDI respondents included TB suspects, TB cases, defaulters and private providers belonging to both the RNTCP and non-RNTCP streams of treatment. FGDs were held with informal providers, members of civil society organizations (CSOs) and traditional healers. The purpose was to gain an insight into the gaps and barriers associated with accessibility, acceptability and affordability of the services under RNTCP among the identified marginalized and vulnerable groups. In addition the programme data was analysed to assess the current status of TB diagnosis and treatment in the tribal and poor/backward districts.

Results: Assessment of the existing scenario revealed three major groups of barriers namely sociocultural barriers, economic barriers and health system barriers. A gap between traditional and biomedical knowledge leading to delay in diagnosis and treatment initiation; stigma, limited family and community support and the long path to care-seeking were some of the major factors affecting

¹⁰ <u>http://www.tbcindia.nic.in/Pdfs/PatientCharter/leaf_Eng.pdf</u>

¹¹ <u>http://www.tbcindia.nic.in/pdfs/RNTCP%20II%20Tribal%20Action%20Plan_10th%20May%2005.pdf</u>

¹² http://www.tbcindia.nic.in/pdfs/Social%20Assessment%20Study%20for%20RNTCP%20-%20Final%20Report%20-%20ORG%20CSR.pdf

utilization of TB services. Economic barriers included visits to multiple providers; high costs of diagnostic tests, treatment and additional drugs; and costs related to transportation and nutrition supplements. Apart from the geographical barriers like location of health facilities and difficult terrain in the hard to reach areas, the study highlighted issues related to health personnel (shortage of physicians, health worker attitudes, lack of personal attention by clinical staff, *'social distance'* between patients and providers). Furthermore there were difficulties with service timings (fixed days of service, inconvenient and fixed timings, waiting time) and quality of care (inadequate follow up, inattention to side effects, and poor counseling). In addition to the general health system barriers, specific to TB treatment under RNTCP in the government health facilities, there were issues such as delay in initiation of treatment, too many tablets, side effects of drugs, cost of additional therapy, and the inconvenience of DOT.

Conclusions: RNTCP recommended measures for strengthening societal and family support systems, improving community awareness about the disease, reducing the economic burden on the patients and their families and, most importantly, influencing provider behaviour and the organization of health care services to make them more patient-friendly to be incorporated into RNTCP. These interventions will complement the available biomedical interventions and assist in better utilization of the TB control services in the resource poor settings.

Findings from the assessment were used to refine the strategies defined in the National Strategic Plan (2012-17) for reaching special populations to realize the goal of universal access to quality TB diagnosis and treatment.

2.0 Progress So Far:

Targeted Interventions for Tribal, Poor and Vulnerable:

2.1 Case finding and diagnosis

The 11th five year plan challenged RNTCP to meet the global target for case detection of 70% of infectious cases ahead of schedule, and enormous efforts were made to achieve this target. More than 31 million patients were evaluated for TB in all the 5 years, with 7.1 million patients initiated on treatment under RNTCP. Consequently, millions of lives were saved and an enormous number of subsequent cases prevented– all at a modest cost to patients and the health system. This was achieved by

- Setting up a system of over 13,000 designated Sputum Microscopy Centers nationwide in the public sector for appropriate, affordable, accessible and quality assured diagnostic services for chest symptomatics and TB cases. Additional resources were deployed to tribal, hard to reach and/or poor and backward areas and performance monitoring strengthened to ensure that quality care reached populations with poor access to health facilities.
- Engaging with the civil society to facilitate reduction in stigma associated with TB and improving access to services and case finding.

- Partnering with Project Axshya in 374 districts with difficult access to health care or poor historical TB case-finding results. Activities under Project Axshya included sensitization of rural providers; support for sputum collection centers and coordination of Non-Governmental Organisations (NGOs) to engage with RNTCP.
- Facilitating access and outreach for slum dwelling populations in partnership with NGOs in several major cities.
- Sensitizing over 47,000 qualified private providers in 16 Indian states on DOTS and mechanisms to ensure compliance to treatment for complete cure.

2.2 Patient friendly treatment services

The past five years of TB control in India can largely be characterized by the scale-up of well-established therapies and mechanisms to ensure compliance. The programme has focused on the use of a standardized treatment regimen, delivered in an uninterrupted manner in patient-wise boxes, free of cost, to patients under direct observation of a DOT provider, in a patient-friendly manner, at a place and time convenient to the patient. By doing so, it consistently achieved treatment success rates in excess of 85% since 2001. This was achieved by

- Bringing DOT services as close as possible to patients. Institutions/providers were identified who were acceptable and accessible to patients and accountable to the program. All public health facilities, including sub-centers were enrolled at DOT centers.
- Identifying, sensitizing and garnering support of community volunteers, cured patients and volunteers from health and nutrition departments to deliver DOT at the doorstep of patients.
- Stringently monitoring patient compliance to treatment and incentivizing providers with Rs. 250/- for every successful patient treated.
- Establishing a comprehensive quality assurance system to ensure that good quality anti-TB drugs are available to patients.

2.3 Pubic Private Mix

The private sector is predominant in health care service delivery in India both in rural and urban spaces. Engaging the private sector effectively is the single most important intervention for RNTCP to achieve the overall goal of universal access and early detection. Several interventions have been rolled out by RNTCP to ensure availability of quality care to TB patients in the care of the private sector. These include:

- Developing and adopting guidelines for engagement with private sector.
- Developing training modules for private providers.
- Systematic engagement with medical colleges.
- Establishment of DOTS centers in private clinics and hospitals.
- Training of rural, non-qualified providers.
- Small scale pilots for engagement with private providers.

2.4 Programmatic Management of Drug Resistant TB (PMDT)

In 2008, WHO estimates indicated over 99,000 MDR-TB cases in India, which was second only to China. MDR-TB is exceptionally complicated and expensive to diagnose and treat. MDR-TB treatment requires specialized care, requires patients to endure 2 years of toxic and difficult to tolerate second-line anti-TB drugs, and even under the best circumstances cure is uncertain. As of December 2011, basic PMDT services cover 260 /659 districts across 35 states, a cumulative total of 38,187 MDR TB suspects have been tested at RNTCP accredited culture and drug susceptibility testing (C-DST) labs for diagnosis; 10,267 MDR TB cases have been confirmed and 6,994 MDR TB cases have been initiated on treatment with the help of 50 collaborating treatment centers. This has been achieved by

- Developing and optimizing systems for programme based diagnosis and treatment of MDR TB that can be scaled nationwide. This entails establishing, organizing, managing and coordinating services for PMDT at the national, state, and district level, which are fully integrated into general health services.
- Educating MDR TB patients and their families about MDR TB, its nature and duration of treatment, potential adverse drug reactions, need for adherence with therapy and the consequences of irregular treatment or pre-mature cessation of treatment. Pilots have been conducted to assess the role of enablers and incentives to promote treatment adherence.

2.5 Joint-HIV Collaboration

TB and HIV act in deadly synergy. HIV infection increases the risk of exposure to TB, progression from latent to active TB, risk of death if not timely treated for both TB and HIV and risk of recurrence even if successfully treated. Correspondingly, TB is the most common opportunistic infection and cause of mortality among PLHIV, difficult to diagnose and treat owing to challenges related to co-morbidity, pill burden, co-toxicity and drug interactions. National and international studies indicate that an integrated approach to TB and HIV services can be extremely effective in managing the epidemic. RNTCP has made significant efforts to coordinate service delivery for TB-HIV interventions by way of

- Joint training in TB-HIV for public health service providers, especially in cross-referrals.
- Intensified TB case findings at Integrated Counseling and Testing Centers (ICTCs), Anti-Retroviral Therapy (ART) Centers, and care and support centers.
- Risk-based referral of TB patients for voluntary HIV counseling and testing.
- Referral of HIV-infected TB patients to National AIDS Control Program (NACP) for additional care and support, including antiretroviral treatment.
- Routine referral of all TB patients for HIV counseling and testing.
- Provision of decentralized co-trimoxazole preventive therapy (CPT) to HIV-infected TB patients.
- Referral of HIV-infected TB patients to ART centers for initiation of ART.
- Expanded recording and reporting, including recording HIV status in the TB treatment cards and TB registers.

2.6 Addressing Children's Needs: Pediatric TB

Pediatric tuberculosis (i.e., TB among the population aged less than 15 years) has traditionally received a lower priority than adult TB in National TB programme because it is largely non-infectious, difficult to diagnose, misplaced faith on BCG, cases have been thought to be few, and the assumption that effective control of adult TB could prevent childhood TB. The actual burden of disease is not known due to diagnostic difficulties but has been assumed that 10% of total TB load is found in children. RNTCP has established the vision that no child should die of TB in India. Towards this high priority has been accorded to diagnosis and treatment of TB in children. Activities include:

- Development of criteria for evaluating TB among children, with separate algorithms for pulmonary TB and peripheral TB lymphadenitis and a strategy for treatment and monitoring of pediatric patients on treatment.
- Active tracing of child contacts of smear positive TB patients.

2.7 Reaching Out to Tribal and Other Special Populations

RNTCP has identified both socially and clinically vulnerable groups as its prioritized audience and has designed the program to minimize social inequalities that lead to exclusion and limit access to quality services. While socially vulnerable groups include schedule castes and tribes, migrants, prisoners and slum dwellers, among others; the clinically vulnerable category includes people who due to existing health issues, habits, or occupational hazards are predisposed to contracting TB and therefore are at a higher risk. Acknowledging that special population groups are highly dispersed, RNTCP has developed strategies to address concerns which range from lack of physical access to public health services and poor health seeking behavior, to core issues of poverty, communication barriers and socio-cultural differences. The following interventions have been implemented by the program:

- A **Tribal Action Plan** developed for the IDA financed project was implemented with guidelines and interventions to reach, hard-to-reach tribal communities. The plan supported larger incentives and allocation of human resources for improved service delivery (*see Annex-2*).
- Special schemes were deployed to improve TB control in urban slums, where populations are unable to access timely diagnosis or complete the full duration of treatment, resulting in unfavorable outcomes.
- DOTS centers and microscopy centers were established in majority of the prisons in the country with a referral system operationalized for treatment and transfers.

2.8 Integration with health systems

RNTCP has been integrated with the National Health Mission, previously known as the National Rural Health Mission, thereby increasing its effectiveness and efficiency for TB care and control. The enormous network of public health infrastructure in India--from sub-centers to the Medical Colleges has been leveraged for the provision of diagnostic and treatment services.

2.9 Advocacy, Communication and Social Mobilization (ACSM)

RNTCP has emphasized significantly on advocacy, communication and social mobilization. Advocacy, to ensure that there is strong commitment for TB control amongst politicians and administrators; communication, to favorably change knowledge, attitudes and practices among various groups of people; and social mobilization to bring together community members and other stakeholders to strengthen community participation for sustainability and self-reliance of the program. As part of ACSM, the program has

- Developed an ACSM strategy which has been informed by several studies including such as Impact Assessment of RNTCP II communication campaign on KAP of target audience, Social Assessment, Accessibility and Utilization of RNTCP by SC/ST, Accessibility and Utilization of RNTCP by women, Accessibility and Utilization of RNTCP by PLWHA.¹³
- Provided a cadre of communication facilitators from NGOs to districts for supporting ACSM activities.
- Trained programme managers, state IEC officers and communication facilitators in ACSM, with a special emphasis on interpersonal communication.
- Developed and deployed mass media campaigns to improve awareness of TB and encourage screening and compliance with treatment.

2.10 Human Resource Development

During the course of its implementation, RNTCP has developed several guidelines and training modules to sensitize service providers towards the poor and vulnerable, especially in the pursuit of assured, early, accessible good quality care for all TB patients in a community. These guidelines and training modules include:

- Universal access to TB care: A practical guide for program managers¹⁴
- Training module for senior treatment supervisors (interpersonal communication)¹⁵
- Training module for MPWs and other DOT providers (how to communicate with patients and interpersonal communication)¹⁶
- Improving interpersonal communication skills in RNTCP training;¹⁷ and
- IEC/Health Communication Strategy, 2005¹⁸

These guidelines and training modules have been extensively used to foster a deep sense of responsibility and commitment amongst all stakeholders of RNTCP towards the poor and vulnerable, which bear the disproportionate burden of TB in India

¹³ The reports of these studies are available in <u>http://www.tbcindia.nic.in/documents.html#</u>

¹⁴ <u>http://www.tbcindia.nic.in/pdfs/Universal_accessto_TB_Care.pdf</u>

¹⁵ http://www.tbcindia.nic.in/pdfs/Module%20for%20Senior%20Treatment%20Supervisor.pdf

¹⁶ <u>http://www.tbcindia.nic.in/pdfs/Module%20for%20MPWs%20and%20other%20DOT%20Providers.pdf</u>

¹⁷ http://www.tbcindia.nic.in/pdfs/ipc.pdf

¹⁸ <u>http://www.tbcindia.nic.in/pdfs/Health%20Community%20Strategy%20for%20RNTCP.pdf</u>

3.0 Way Forward: National Strategic Plan (2012-17)—ensuring universal access with social/clinical equity

Building on the success of RNTCP, the National Strategic Plan (2012-17) has been developed with the goal of universal access to quality TB diagnosis and treatment for all TB patients in the community. This entails sustaining the achievements till date, finding unreached TB cases before they can transmit infection, and treating all of them more effectively, preventing the emergence of MDR-TB. To reach these goals, RNTCP will pursue the following objectives:

- Ensure early and improved diagnosis of all TB patients including drug resistant and HIVassociated TB.
- Provide access to high-quality treatment for all diagnosed cases of TB.
- Scale-up access to effective treatment for drug-resistant TB.
- Decrease the morbidity and mortality of HIV-associated TB.
- Extend RNTCP services to patients diagnosed and treated in the private sector.

To achieve the objectives, the plan has systematically identified

- Interventions that have yielded success during RNTCP I and II and ensured that these are either continued or where required, strengthened/intensified to maintain successes in outcomes;
- Challenges faced by the program in key areas of implementation and in consultation with various stakeholders proposed interventions to counter them.

While the successful interventions focused to address inclusion of vulnerable groups in the TB program enumerated in the preceding sections will be ongoing during the NSP period, the following sections highlight the challenges identified and the strategies/actions proposed to address them in the NSP period.

3.1 *Case finding and diagnosis*

The success of improving TB case finding will directly determine how fast RNTCP can achieve the overall programme goal of reducing TB morbidity and mortality till TB is no longer a major public health problem. In order to find all cases and to find them early, the fundamental approach to case finding in RNTCP will have to evolve to include better contact investigation, outreach to clinically and socially vulnerable populations, and early screening of TB patients for drug-resistant TB.

S. No.	Challenges	Revised Strategic Plan
1.	Weak health seeking	Reach out to unreached and vulnerable populations by
	behavior: patients not	- Integrating program with general health system under
	accessing health system or	NHM, and leveraging field staff for home-based case
	accessing late	finding. Accountabilities will be defined, training
		provided and supportive supervision mechanisms set
		up to ensure performance.

		
		- Improving communication, outreach and social
		mobilization (ACSM) to reduce stigma, generate
		demand from patients and improve cooperation from
		private sector. Sensitization and participation of
		Panchayati Raj Institutions (PRIs), private practitioners
		and Self Help Groups (SHGs) will reduce gap between
		services and need.
		- Screening clinically and socially vulnerable groups for TB
		including people living with HIV, household contacts of
		TB cases, malnourished children, diabetics, tobacco
		users, and those living in houses with indoor air
		pollution. Quarterly screening camps at districts and
		sub-district levels, house to house, screening of
		malnourished children at anganwadi centers, regular
		bi-annual screening camps at medical colleges and
		national TB screening days leveraging entire health
		system or three days in a year in June and August will
		be initiated to reach out to socially vulnerable groups
		including migrants, slum dwellers and SC/STs.
		 Improving specimen transportation systems and
		feedback results to patients by introducing supply side
		allowances and incentives to health workers and
		volunteers transporting sputum samples to DMCs.
		- Developing local inventories of vulnerable groups to
		deploy innovative targeted case finding activities.
2.	Limited collaboration with	Expand efforts to engage all health care providers (Public
	the private sector	Private Mix) by deploying innovative public sector engagement
		models.
3.	Failure to link diagnosed TB	Create public health system accountability for all diagnosed TB
	patients to appropriate	patients and put patients on DST guided treatment by
	effective treatment	 Strengthening referral for treatment and transfer
		mechanism using electronic referral and feedback
		system to minimize patient loss.
		- Accelerate deployment of decentralized DST capacity to
		significantly interrupt transmission of drug resistant TB
		by bringing technology for drug sensitive treatment
		closer to the patient.

3.2 Patient Friendly Treatment Services

	S. No.	Challenges	Revised Strategic Plan
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1.	Decreasing number of	-	Decrease default among retreatment cases
	retreatment cases and	-	Prompt appropriate treatment guided by drug
	improving outcome of		susceptibility testing
	treatment	-	Early diagnosis of HIV-infected TB patient and linkage to
			both TB and HIV care and support.
2.	Inflexibility of DOT	-	Strengthening and expanding network of DOT providers
	treatment		in community leveraging self-help groups, ASHAs,
			Anganwadi workers, religious leaders, opinion makers,
			cured TB patients, NGOs and private providers. Option
			of workplace DOT would be explored.
		-	Making available to patients a choice of DOT providers.
		-	Encouraging community DOT with enhanced incentives.
		-	Providing travel support for HIV infected TB patients to
			facilitate access to ART.
		-	Enhancing incentives to patients for completed
			treatment.
		-	Using IT and telecommunication to improve monitoring
			and adherence.
3.	Sub-optimal treatment	-	Extending RNTCP services to patients treated in the
	practices in private sector		private sector and monitoring outcomes.

3.3 Public Private Mix

The intent of the NSP-RNTCP is to extend the umbrella of quality TB care and control to include those provided by the private sector, so as to reduce the costs of morbidity and mortality and to reduce the risk of drug resistance. With the private provider being a preferred choice for health care services both in urban and rural India, NSP's goal requires extending RNTCP services to the private sector, appropriate level of incentives to motivate private providers.

S. No.	Challenges	Revised Strategic Plan
1.	Quality of TB care provided	 Developing National Technical Working Group, PPM
	in private sector	Technical Support Group and private provider interface
		agencies to drive and implement reform for
		engagement with private sector for improved quality
		and accountability of TB care.
		- Expanding provision of TB control services through PPP
		contracts with private laboratories and hospitals.
2.	Weak regulatory	 Integration with enhanced surveillance
	enforcement mechanisms	

3.4 Scaling up programmatic management of drug resistant TB

There are large gaps between the burden of MDR TB and the actual number diagnosed and treated till date. The vast majority of MDR TB remains undiagnosed, and substantial numbers of MDR TB patients are mis-treated in the private sector, leading to additional drug resistance and XDR TB. With the poor/vulnerable groups dropping out of treatment due to poor access or financial constraints, they also are most at risk of MDR and XDR TB. Enormous operational challenges will need to be addressed in the coming years to achieve MDR TB control.

S. No.	Challenges	Revised Strategic Plan
1.	Insufficient capacity to	 Recruiting additional staff to address increase in case
	deliver and supervise MDR	loads and meet the more intensive service delivery
	TB services	requirements of MDR TB.
		 Enhancing training budget to support training at state
		and district levels to deliver and sustain high quality
		services to DR-TB cases.
2.	Insufficient capacity for	- Decentralizing the diagnostic services to district and
	C/DST services to meet	sub-district levels by introducing the newer
	challenge of universal access	technologies.
	to those eligible to receive	
	services	
3.	Inadequate patient support	- Assuring the support of a professional counselor to
	systems	MDR TB patients to facilitate adherence.
		- Enhancing honorarium to DOT providers.
		- Enhancing patient support mechanisms such as for
		travel to service delivery points.

3.5 Scale up of joint TB-HIV collaborative activities

The overall goal of joint TB-HIV collaboration is to reduce the mortality among HIV-infected TB patients. This will be achieved through coordinated and universal access to TB and HIV care. The programme envisions expanded diagnosis to ensure that 1) all HIV-infected should have their TB promptly diagnosed, 2) that all TB patients should have their HIV promptly diagnosed.

S. No.	Challenges	Revised Strategic Plan
1.	Non-comprehensive surveillance of HIV prevalence among TB patients and TB prevalence among persons living with HIV	 Increasing human resources for supervision and monitoring. Real time monitoring of inter-programme linkages through improved web based surveillance systems.

2.	Inadequate joint	- Strengthening coordination mechanisms at district and
	programme management	state level between programs.
		- Training of RNTCP staff in TB-HIV.
		- Enhancing TB related information on existing helpline of
		the National AIDS Control Programme.
3.	Improving TB care for those	- Expanding locations for Intensive Case Finding,
	with HIV	expanding patient profile and introducing newer, rapid
		and diagnostic technologies for early and improved
		diagnosis.
		- Implementing National Air Borne Infection Control
		policy at ART centers.
4.	Improving HIV care among	- Scaling up Integrated Counseling and Testing Centers
	those diagnosed with TB	(ICTC) at all RNTCP DMCs.
		 Extending financial support to all HIV infected TB
		patients for travel to ART center for evaluation and
		treatment initiation.
		 Optimizing outreach activity undertaken by different
		cadres of NACP outreach workers.

3.6 Addressing Children's Needs: Pediatric Tuberculosis

No child should die of tuberculosis in India. All children with TB should be diagnosed promptly and effectively, notified to RNTCP, and accountably treated with high-quality child-friendly formulations and approaches. To achieve this goal, RNTCP will seek to improve the quality of pediatric TB diagnosis, more effectively engage private providers and pediatricians, and incorporate more flexible, child-friendly treatment regimens and practices.

S. No.	Challenges	Revised Strategic Plan
1.	Inadequate collaboration	 Better engaging with private providers and
	with pediatricians	pediatricians.
2.	Diagnostic and treatment	- Reimbursing private diagnostic centers for x-ray of
	challenges	pediatric TB suspects.
		- Improving microbiologic diagnosis with better specimen
		collection and processing.
		 Improving treatment through child-friendly
		formulations, flexible supervision.

3.7 Reaching Out to other Special Populations

The programme will systematically identify vulnerable and at risk populations and communities during this phase and invest resources to make TB services accessible and available to them. Activities to

promote universal access of TB services equitably across special populations can be broadly categorized as 1) those that target specific geographies, populations and co-morbidities and 2) those that focus on processes such as integration with other programs.

S. No.	Challenges	Revised Strategic Plan
1.	Inadequate staff and	- Recruiting contractual staff from within tribal
	infrastructure at local levels	communities, training and empowering them to
		function adequately through NGO support.
		- Filling up all vacancies in districts on priority.
		 Pilot testing the collaborative framework for
		TB/Diabetes and scaling up successful interventions.
		- Piloting collaborative framework with Tobacco control
		program.
		- Engaging with state Nutritional Rehabilitation Centers
		to identify malnourished children, screen them for TB
		and link them to appropriate TB treatment services.
		- Identifying old age and pension homes in districts and
		implementing active screening for TB among the aged.
		- Enhancing referral and follow up mechanisms for
		mobile populations to ensure uninterrupted treatment.
2.	Poverty and inability to	 Supporting 144 backward districts identified for
	afford any out-of-pocket	provisions similar to those extended to tribal districts.
	expenditure	- Enhancing provision of demand side incentives to
		support increased access to diagnosis and completion
		of treatment services.
3.	Communication barriers	 Developing locally relevant IEC.
		 Introducing NGO collaborative schemes to ensure
		sputum transfer.
		- Enhancing engagement with civil society for increasing
		reach of RNTCP.
4.	Absence of workplace	- Engaging with the Ministry of Labor and Mining to
	interventions	identify high priority districts with stone crushing
		units/mining industry; developing specific guidelines to
		support persons with an occupational risk for TB; and
		providing access, diagnosis and treatment services to
		them.
5.	Incarcerated populations	- Training and involving prison medical personnel for
		screening and treatment of prisoners with TB, with
		special emphasis on transfer patients.

3.7 B Tribal Action Plan:

RNTCP will continue to implement the Tribal Action Plan (2005) with steps outlined in the NSP and listed in this section. Institutional and implementation arrangements for RNTCP have been designed to increase access to and utilization of treatment services by the "hard to reach populations" by bridging information, access and provider gaps; and by enabling the disadvantaged groups to overcome socioeconomic and cultural barriers. The Tribal Action Plan (TAP) emphasizes: (a) strengthening early reporting, (b) enhancing treatment outcomes, and (iii) closer supervision of tribal areas. Specific measures implemented include: increasing case detection and treatment success trends in a sample of pre-defined districts with higher proportion of tribal population; reducing default rates of female patients compared to male patients; promoting locally adapted IEC messages and patient education material in place; and having operational research results to assist in planning and implementation of RNTCP in the tribal pockets. Measures adopted to address the above are:

(a) nutrition and social welfare schemes to support TB patients in some areas,

- (b) allowances to encourage key health staff working with RNTCP in tribal areas;
- (c) differential norms for establishing Designated Microscopy Centers (1 for 50,000);
- (d) travel allowances to patients and attendants; and
- (e) honorarium for patients completing the treatment as well as DOT providers.

3.8 Integration with Health Systems

The vision of the TB programme for the next five years is to strengthen the decentralised programme structure and ensure integration with mainstream public health systems.

S. No.	Challenges	Revised Strategic Plan
1.	Insufficient access for clinically vulnerable and remote area populations	 Establishing diagnostic centers in greater proximity to the community. Extending the population based norms for programme delivery for tribal districts to poor and backward districts. Ensuring outreach through village health and nutrition days.
2.	Lack of transportation systems adversely impacting quality of service	 Assuring provisions for contracting of courier or transportation agency at state or district levels for services.

3.9 Advocacy, Communication and Social Mobilization

Key vision for TB control is for achieving universal access, i.e. all TB patients in the community to have access to early and good quality diagnosis and treatment services in a manner that is affordable and convenient to the patient in time, place and person. All affected communities must have full access to TB prevention, care and treatment including women and children, elderly, migrants, homeless people, alcohol and other drug users, prison inmates, people living with HIV and other clinical risk factors. In order to achieve the universal access, ACSM strategies will complement every other programme initiatives. ACSM strategies will be used for better demand generation for early diagnosis and treatment as well as for improved supply of quality care.

In support of all the challenges enumerated above, ACSM will be deployed for

- Generating greater demand for early diagnosis and treatment; improving health seeking behavior leveraging empowered community structures and other stakeholders; using evidence based BCC strategies.
- Ensuring supply of quality assured diagnosis and treatment; and enhancing political will and commitment of policy makers at national, state and community level. This will be achieved by effectively engaging with other stakeholders including media, NGOs, patient support groups etc. to support advocacy and communication.

4.0 Stakeholder Consultations

Stakeholder consultations were carried out in multiple phases for the preparing the Social Action Plan and for designing the Programme as follows.

Social Assessment (2011): A series of Interviews were held with the affected and served individuals in eight districts as follows: two districts each from Andhra Pradesh, Odisha and Rajasthan- one which was predominantly tribal and the other which had the highest urban slum population. In addition to these three states, a predominantly tribal district was selected from Assam and a district with the largest urban slum population was selected from Uttar Pradesh for holding interviews. In the tribal districts, the respondents were randomly selected from the TU with the largest percentage of tribal population. For the urban slum population, the TU with the largest slum in the district was selected.

S. No.	State	District	Type of study population	Annual NSP case notification rate (2010)	Treatment success rate of NSP patients (2009)
1.	Andhra Pradesh	Adilabad	Tribal	61	91%

Table 2: Selected states and districts

2.	Andhra Pradesh	Hyderabad	Urban slum	58	87%
3.	Assam	Karbi Anglong	Tribal	53	79%
4.	Odisha	Bhubaneswar	Urban slum	28	84%
5.	Odisha	Kandhamal	Tribal	69	88%
6.	Rajasthan	Jaipur	Urban slum	57	91%
7.	Rajasthan	Banswara	Tribal	97	91%
8.	Uttar Pradesh	Lucknow	Urban slum	68	81%

A **national consultation** was held in Delhi to finalize the National Strategic Plan (2012-2017) in 23rd July 2012, in which several stakeholders took part including representatives from the Ministry of Health and Family Welfare, GoI, WHO, World Bank, Gates Foundation, The Union, World Vision, PHFI, Stop TB Partnership, GHS, FIND , academicians and experts from premier medical institutions of India, and others. The National Workshop involved discussion on a range of planning, implementation, and monitoring issues.

Two **follow up consultations** were held to take feedback on the draft Social Action Plan. The first consultation was organized at Delhi on October 24, 2013 and the second one was held at Phulbani (tribal area), Odisha on November 4. In both these meetings, the representatives from the World Bank participated as observers.

The participating stakeholders during a consultation held on October 24, 2013, in Delhi endorsed the commitment of RNTCP to the National Strategic Plan's objective of improved, equitable universal access to quality diagnostics and treatment for TB care for poor, vulnerable and marginalized populations. The stakeholders welcomed the strategies and activities outlined in the NSP for case finding and diagnosis, patient friendly treatment services, public private mix, scaling up programmatic management of drug resistant TB, scaling up of joint HIV-TB collaboration activities, pediatric TB, special populations, integration with health systems and advocacy, communication and social marketing to achieve this objective. In addition to the activities included in the NSP, the stakeholders called for additional interventions, which included

- roll out of exclusive schemes for active case finding and supportive supervision in backward and tribal areas;
- extension of specific support to ensure efficacy of communication materials deployed as part of ACSM in tribal areas;
- review of utilization of additional funds provided to tribal districts to understand bottle necks and facilitate utilization; and
- characterization of population served through active surveillance, household level surveys and case based data to substantiate improvement in uptake of TB care by special groups.

The participants in the second consultation held in the remote Kandhamal district of Odisha by the State TB Unit with the help of WHO, the State AIDS Control Society, included staff of the District TB Unit, Asha workers, NGOs (sputum collectors), and community counselors. The participation highlighted hard

efforts being made to reach out to the dispersed tribal households through decentralized DOTs. They emphasized strengthening of the following measures:

- investments in annual training and orientation of field workers
- RNTCP monitoring by the Collector/ CMO
- patient outreach and family counseling to minimize stigma
- IEC at school/colleges like in case of National Aids Control Programme
- Innovative IEC programmes using cultural events and radio especially in tribal areas

5.0 Implementation Arrangements

5.1 *Institutional Arrangements*:

The RNTCP as of 2006 has been coopted under the National Rural Health Mission. Implemented at the grassroots level by the general health system, Designated Microscopy Centers (DMCs) which are the diagnostic facilities at the grassroots, are established for every 100,000 population (50,000 in tribal and hilly areas) with TB Units (treatment facilities) set up for every 500,000 population (250,000 population for hilly and tribal areas). At present a network of 13,000 DMCs integrated within the government health facilities at all levels provide appropriate, affordable and accessible quality assured diagnostic services for chest symptomatic and TB cases. The Tuberculosis unit (TU), which is essentially located in health facilities Block Primary Health Center and above (2600 TUs as of date), comprises of a team of Medical Officer, Treatment Supervisor and Lab Supervisors, who have the responsibility of managing and supervising the RNTCP in the field. The TUs are distributed evenly in rural and urban areas. With the program aspiring for complete integration with NRHM structures right up to the block level, the number of TUs are expected to double (one per 200,000 population) thereby increasing penetration of services in both rural and urban areas. This alignment with Alignment with NRHM Block Program Management Units (BPMU) and its supervisory structures has the potential of leading to greater ownership and review of RNTCP by the general health system. A cadre of community health workers, including Accredited Social Health Activists (ASHAs), Community Volunteers and incentivized DOT providers are the first link of the program with TB patients.

In terms of organizational arrangements, the program hosts technical leadership in the Central TB Division, of the Ministry of Health and Family Welfare at the Central Level. CTD focuses on capacity building of states, technical guidance, policy formation, lesson sharing and monitoring and evaluation for the program. It also has the responsibility of transfer of funds to State Health and Family Welfare Societies, procurement of anti-TB drugs, mobilization of funds and coordination with other Government Departments. Besides the Program Managers and Deputy Program Managers, 10-12 consultants supported by development agencies will provide technical direction to RNTCP.

At the state level, the State TB Cell serves as the program management unit. The State TB Cell within the State Health Societies has been provided with equipment, infrastructure, contractual staff and training

to support program implementation. The state TB officer monitors the program at the district level with the support of a team to ensure district compliance with eligibility criteria for participating in program, overseeing functions of District TB Centers, coordinating activities with health institutions, overseeing staff training, ensuring quality control and recording monitoring of program outcomes. At the state level, the institutional arrangements have been reorganized to reflect additional support necessary for an increase in the scope of work with respect to programmatic management of drug resistant TB services, expansion of TB-HIV activities, public private mix interventions, improved program management and monitoring .

District Health Societies under the administrative leadership of the District Collector ensure implementation of the entire National Rural Health Mission, of which RNTCP is a part, at the grassroots level. The District TB Center (DTC) is the administrative unit responsible for implementation of the TB program. The DMCs and and TUs fall under the DTC, with the latter responsible for implementation of the program, monitoring and supervision of TB control activities in designated areas, maintenance of TB registers, and preparing quarterly reports. Several cadres of contractual staff, including Senior Treatment Supervisor, Senior TB Laboratory Supervisor, TB Health Visitor, Data Entry Operator, Accountants facilitate program implementation.

5.2 Information Disclosure, Grievance Redress Mechanisms

Disclosure: RNTCP discloses relevant policy guidelines, plans, and status reports which are available on its website **http://tbcindia.nic.in/home**.htm. In addition to this, it implements a robust ACSM strategy to inform and communicate with the patients and other stakeholders regarding the programme, which has been discussed in preceding sections. Many of the educative and informative materials are prepared and disseminated in the local languages in the implementing states.

Grievance Redress: No separate grievance redress mechanism is established for RNTCP as this is mainstreamed into the National Health Mission. The existing grievance handling systems at the state/ district levels will address grievances, including any instance of stigma or discrimination. RNTCP has developed and adopted a **Patients' Charter for TB Care**¹⁹, which defines patients' rights in terms of care, dignity, information, choice, confidence, justice, organization and security provided. Additionally, patients' responsibilities have been enumerated in the Charter. RNTCP displays contact information in its IEC materials. Nikshay will enhance contact between patients and various service providers. RNTCP is working towards establishing helplines at state and national levels for providing information and for addressing any complaints. Specific Central Public Information Officers and Appellate Authorities have been designated under the National Rural Health Mission to address queries under the Right to Information Act, 2005.²⁰ The Mission has also prescribed a framework for grievance redressal that

¹⁹ <u>http://www.tbcindia.nic.in/Pdfs/PatientCharter/leaf_Eng.pdf</u>

²⁰ http://nrhm.gov.in/rti.html

entails establishment of mechanisms at facility level, district level and state level to accept, record, respond to and resolve grievances in a structured manner with the support of an unbiased third party—preferably an NGO.

5.3 Monitoring and Evaluations:

The Social Action Plan will have no separate monitoring and evaluation system established to track its implementation. The M&E system of RNTCP enables collection of implementation data segregated by areas and population groups with performance indicators including (1) annualized case detection rates for new smear positive cases, (2) Proportion of New Sputum positive out of Total New Pulmonary Cases, (3) Smear Conversion Rate, and (4) Treatment Success Rate. This will allow monitoring key indicators in special populations. Mid-term and end-term evaluations carried out to document the more specific social outcomes and lessons learnt for the future. Additionally, Joint Review Missions of RNTCP, Common Review Missions of NRHM and internal reviews of the program will assess performance of the Social Action Plan.

S	Recommendation	Actions	Update
No.			
Comm	nunity Based interven	ions	
1.a	Increase overall visibility of the program through community level strategies so that patients go directly to the health centre and do not depend on informal providers	 a. Involve village health and sanitation committees (VHSC) to raise awareness among the community. b. Introduce the concept of model 'TB free' villages, which are acknowledged at the higher administrative levels such that the VHSCs and the community are incentivised to work towards it. c. Use mobile technology to provide information about the disease and the program; and to improve patient follow-up and compliance d. Start a help-line to provide information about the disease, the available treatment and location of the nearest diagnostic and treatment centre e. Involve schools, local associations, and self-help groups to spread the information in their areas. f. Use general health staff to disseminate messages for increasing awareness about the disease and the programme. 	a &b: RNTCP is aimed to align the program with NRHM. Under the ACSM component of NSP community involvement is one of the key strategy. Here the program is committed to involve the VHSC and VHND both for the TB program. The mode of ACSM service delivery will through ASHA and ANM which are the integral part of VHSC. Apart from that this will also include opinion leaders for delivery of TB related services to target population. c&d: Recently RNTCP has started a web based case system in TB called NIKSHAY which has been rolled out countrywide which will take care of the c & d recommendation. NIKSHAY has six functions one of these is "Demand generation" where information on TB will be given by SMS. Currently many states under RNTCP have their own TB helpline number; under NIKSHAY, there is a plan to establish a national helpline number.

Measures to Address Issues Raised Social Assessment (2011)

		e.f.g:
		Involvement of stakeholders is
		already a part of New ASCM
		strategy of NSP. RNTCP in 2012
		itself aims to reach all the
		schools and colleges for the
		spread of awareness of TB
		program.
 Introduce	a. Use performance based	This is already a part of
incentives to	incentives and micro-financing	program. Currently In tribal
provide financial	schemes for financial support.	districts there is provision of Rs
support to the	Patients' performance may be	250 per patients on the
patients and	incentivised based on some	completion of treatment. This
families	defined measurable action like	has been increased Rs 750 in
	steps in the treatment process;	new NSP
	or TB treatment can be	Apart from this under NSP 2012-
	modelled as a conditional cash	17; MDR/XDR/HIV TB Co
	transfer scheme i.e. an assured	infected will also get patients
	incentive may be cash or kind	support incentives. This is
	following successful completion	applicable for non-tribal districts
	of treatment.	also. There is also provision for
	b. Incentives may include	incentive for sputum
	 direct payment 	transportation. The rate of
	 deposit return 	these incentives under are as
	 subsidies – 	follows:
	✓ transport	a. Sputum Collection &
	vouchers/passes	Transportation:
	✓ vouchers for	b. Sputum collection and
	subsidized food (may	transportation for TB
	be linked to the PDS	suspect / patient from
	shops), dry rations	non-DMC PHI to DMC at
	✓ living subsidies for	the aggregate rate of Rs.
	migrants	15 per patient for
	 packages of other material 	diagnosis or follow-up.
	goods	c. Sputum sample
		transportation to culture /
	The incentive package would need	DST lab: Rs. 300 per
	to be defined as per the local needs.	patient / visit. Higher cost
	An exit survey at the health facilities	can be approved with
	maybe used to determine the	justification and approval
	expenses incurred by the patients	at district level with

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	for additional drugs, nutrition and	information to state.
	transport; their expectations for	d. MDR TB suspect travel to
	further support and the feasibility	DTC / Collection centre for
	of the various incentives. The	Culture / DST: MDR TB
	opinion of the program	suspect travel to DTC /
	managers/providers and lessons	collection centres: upto
	learnt from similar programs in this	Rs.100 per patient / visit;
	regard would be useful while	to be paid as per actual
	defining the incentive package	with public transport or at
	especially regarding the best ways	rates approved by society.
	for disbursement of the incentives	e. Drug resistant TB Patient
	and monitoring and tracking the	travel: MDR / XDR TB
	process.	patient travelling cost for
		two person (patient +
		accompanying person):
		f. Visit to DOTS plus site: Rs.
		700 per visit for two
		person
		J. J
		per visit for two person
		h. Transportation cost for co-
		infected patient travel:
		i. Up to Rs. 500 one time
		travel cost for first visit to
		ART Centre by the co-
		infected TB patient along
		with accompanying
		person as per actual as per
		public transport or rates
		approved by society; even
		more than these norms
		can be approved based on
		the distance and actual
		public cost.
		j. All the visits / specimen
		transportation should be
		as per the program
		guidelines
Strengthen	a. Drawing from the experience of	In NSP patient friendly services
societal and	the leprosy programme, form	is one of the core component of
family support	local TB clubs where patients	programming where all the
		F - O - G - O - O - O - O - O - O - O - O

	1	oon chore their everyteress and	nointe house hoor included. The
systems	b.	can share their experiences and perceptions with other members. At treatment initiation or at time of address verification, the family members should be counselled on how to provide support to the patients. Counselling should be done regarding cause of disease, treatment duration, side effects, actions in case of side effects or default, treatment success, other incentives from program and chemoprophylaxis. Appoint community based TB link workers who would have a closer contact with the patients than health workers. Use home visits by them and self- help groups to provide social support.	 points have been included. The major highlights of patients friendly services are: Decentralisation of DOTS Choosing the right of DOT provider Encouraging community DOT Incentivising the DOTS completion Travel support Use of ICT Community DOT Providers will counsel, motivate and help the patients to take the complete course of treatment and will also retrieve patients who miss doses. These activities are very important for treatment adherence during the very prolonged treatment for MDR TB this is 24-30 months for Cat II 9 months and for Cat I 6 months) for Drug Resistant
Use the direct and indirect approach to reduce stigma associated with the disease	a. b.	Campaigns should directly target these issues. Specific messages dispelling these myths need to be used to increase awareness among the general population as well as the providers. The indirect approach is to associate the stigmatised disease with a non-stigmatised disease. This makes treatment more acceptable in the society.	One of the strategic approaches of the new IEC strategy under NSP is audience based behaviour change. Where stigma reduction will be the main focus. This will be done through a National Level Media agency and Public Private Interface Agency (PPIA) both. Refer to the ACSM strategy.
Supplement the community level strategies for awareness generation with a	a. b.	Use multiple channels of communication to strengthen the existing IEC strategy. The communication messages should be phased into three	Program has proposed to include multiple levels of communication channels in new NSP. These ranges are: Street theatre (Please highlight

comprehensive	parts: how TB themes are sought to be
IEC strategy to	 Phase I - Information integrated with NRHM IEC
provide	about the signs and initiatives at a community level)
information	symptoms and aetiology Television
about TB and	of the disease Radio and community radio
RNTCP	 Phase II - Information on networks
	what to do (highlight Newspapers
	details on treatment Outdoor Media
	success, length of The messages used through
	treatment, side effects of these mediums will in
	drugs) and where to go accordance to the national
	(special emphasis to be guideline and will be approved
	made on outlining all the by National level ACSM sub
	benefits of the committee.
	programme like free
	diagnosis and drugs,
	travel reimbursements
	etc.)
	 Phase III - Information on
	detrimental effects of
	neglecting prompt
	diagnosis and treatment
	c. Messages should stress on
	individual benefits rather than
	ideal behaviours or the
	community as a whole.
	d. Messages should be framed as
	per local context in the local
	language and should be
	communicated by local
	personalities. National leaders
	and heroes may not necessarily
	hold the same amount of
	influence in small towns and
	cities.
	e. The successful IEC strategy for
	other diseases has revealed
	that "intermittent, low-level
	television advertising was as
	effective as continuous, high-
	level television advertising."

I		
	f. Other methods such as tele-	
	serials (used successfully to	
	increase awareness of HIV in	
	African countries) etc. should	
	be used in the local language.	
	The IEC activities need to be	
	undertaken on a massive scale on a	
	regular basis reaching out to the	
	remotest corners of the country.	
	Process evaluation of these	
	activities is also a must at regular	
	intervals to assess for fidelity to	
	design (implemented as per	
	protocol), reach (percentage	
	audience exposed to messages),	
	satisfaction (audience reaction to	
	messages) and dose received (level	
	of contact/communication and	
	volume of product/service	
	obtained). Based on the findings the	
	strategy should be revised and	
	adapted to the local context to	
	ensure complete coverage and	
	adequate awareness among the	
	population to effect timely and	
	correct health seeking behaviour.	
2. Health system based	3	
Decentralizatio		The program is committed to
	-	The program is committed to
of DOT and	local requirements.	provide the patients friendly
flexible timings		services under NSP. major
	like DOT provision to overcome	highlights of patients friendly
	geographical barriers and make	services are:
	services more patient friendly.	 Decentralisation of DOTS
	Ensure greater involvement of	 Choosing the right of DOT
	community in planning and	provider — Making DOT flexible. :
	implementation of programme.	provision should be made
	b. Establish a grievance cell in	to provide extra drugs
	health centres/health	required for self-
	department for TB/other	administration while
	diseases to address issues	documenting the same on
		the treatment cards. The

	regarding the quality of care and improve the accountability of the health system. Train program managers to take timely action	 empty blister may be collected back from the patient on his/her return and would be used to assess compliance. Encouraging community DOTS Incentivising the DOTS completion Travel support Use of ICT
Improve Quality of care	 a. Ensure adequate attention to side effects, timely referral by DOT providers and proper management by Medical Officers. b. Ensure need based provision of supportive medicines. c. At the time of treatment initiation, the medical officer should ascertain the views of the patient regarding the disease and his expectations from the treatment. The patient should be counselled regarding cause of disease, treatment duration, side effects, actions in case of side effects or default, treatment success, other incentives from program and chemoprophylaxis. Counselling should be a continuous process and each contact with the DOT provider/health worker should be used to reinforce the elements for treatment success 	All the points are taken care by Peripheral Health Worker – at the time of the initiation of DOTS. MO and STS are also accountable to ensure the quality of these counselling during field visit and interaction with patients.
Improve	a. Increase motivation and	A fixed allowance of Rs 1000 per
environment in which services are provided	commitment of health staff by support supervision, recognition, group incentives, equal	month is given to contractual STS/STLS/LT at TU/DMCs in notified tribal areas as per the

mainly staff	opportunities for profession	tribal action plan.
attitude	progression and other	In NSP poor and difficult districts
	performance management	have also been included under
	techniques.	this. Also an additional upto 10%
	b. Needs based training to improve	to be paid in case of giving
	performance of providers mainly	additional charge to the staff
	patient provider interaction.	due to vacancy or leave or
	c. Ensure better management and	absence.
	supervision of services to ensure	
	availability of staff, prevent long	
	queues for outdoor patients and	
	distribution of medicines.	
Private/other	a. Create awareness about the	During 2012-17 the strategic
sector	programme and PPM schemes.	vision of RNTCP is to develop
involvement	b. Conduct trainings and	and deploy private sector in the
	sensitization workshops about	case detection and management
	recent developments.	of TB. The plan for strategic
	c. Provide attractive and timely	engagement with the private
	incentives through e-payments	sector in the coming five years
	for better and continued	focuses on clarifying
	provider involvement.	opportunities, policies and
	d. Need based provision of	strengthening mechanisms at
	additional funds to support	the national and state level. A
	manpower.	National Technical Working
	e. Encourage involvement and	Group on Public Private Mix
	sensitization of informal	(PPM) will meet regularly to
	providers	review and analyze data and
		provide advice to RNTCP about
		opportunities to increase private
		health sector involvement. At
		the national and state level, a
		Technical Support Group will be
		established within RNTCP to
		focus on effective contract
		management and other
		partnership-strengthening
		functions. Private Provider
		Interface Agencies (PPIA) will be
		hired in states to manage the
		activities of engaging the private
		sector.

Involvement of civil society organizations in each districts	Use civil society organizations in each district for interventions which require social reach; such as awareness generation, involvement of private/informal sector, counselling and retrieval of patients.	Other approaches include an expanded acceptance by RNTCP of internationally approved diagnostic and treatment protocols, reliance on market forces rather than normative exhortation, increased use of accreditation and contracting, further outreach to private laboratories, increased control of TB drugs, and innovative use of information and communication technologies. Currently the norms is Up to Rs. 3 lakh / million populations per year has been earmarked under various schemes for NGO/PP. Districts and state health societies may approve additional expenditure over and above the proposed norms. In the NSP this has been increased to Rs 5lakhs/ million populations. Also the NGP/PP schemes guideline is under revision where these recommendations will be included.
ers		•
appropriate regulato reporting from both thereby improving th	ry mechanisms to ensure better the public and the private sector e quality of available data.	The order for notification of TB case has been issued by Govt. of India on 7 th May 2012. Patients Charter for TB care
	or empowering the TD cases	includes this recommendation.
socioeconomic and c linkages on access to	ultural determinants and their inter- TB care services and test out	RNTCP is committed to give research as a priority area. For this at the time of Annual action plans stage funds are being
	civil society organizations in each districts rs Strengthen the disea appropriate regulato reporting from both thereby improving th Introduce initiatives f Prioritize future resea socioeconomic and c linkages on access to	civil society organizations in each districts each district for interventions which require social reach; such as each districts each districts each districts each district for interventions which require social reach; such as each districts each districts each districts each district for interventions which require social reach; such as each districts each districts each districts each district for interventions which each district for intervention which district for intervention which

address these barriers.	allotted to states and Medical
	colleges to do research. At
	national level there is also a
	National Research Cell who
	formulates the normative
	guidelines for improving
	research for TB control.

*NSP Refers to National Strategic Plan 2012-17

Annex-2

Tribal Action Plan of 2005 disclosed on website

Introduction

Tribals constitute 8.08% of the country's population, which makes India the second largest concentration of tribal communities in the world (Census 1991). There are 635 tribes in India located in five major tribal belts across the country. Seven Indian states account for more than 75 percent of the tribal population. The main concentration of tribal people is the central tribal belt in the middle part of the India and in the north-eastern States. However, they have their presence in all States and Union Territories except the State of Haryana, Punjab, Delhi and Chandigarh. The predominantly tribal-populated States of the country (tribal population more than 50% of the total population) are: Arunachal Pradesh, Meghalaya, Mizoram, Nagaland and Union Territories of Dadra & Nagar Haveli and Lakshadweep (IDSP 2003). There are 533 tribes (with many overlapping types in more than one State) as per notified Schedule under Article 342 of the Constitution of India in different States and Union Territories of the country with the largest number of 62 being in the State of Orissa. The prominent tribal areas constitute about 15 percent of the total geographical area of the country and correspond largely to under developed areas of the country (IDSP 2003).

Tribal people live in geographical isolation mostly in remote, inaccessible hilly areas. They are referred to as backward, due to their lack of capacity to utilize the opportunities of development offered to them. They are illiterate, have traditional beliefs and constitute the poorest of the poor segment of the Indian population (Mutatkar RK, 2004). In view of this, the RNTCP needs to make specific efforts to address the problem of access and utilization of TB services by this socially and geographically marginalized group. Poverty and poor infrastructural development in tribal dominant areas have been the main reasons contributing to inability of the RNTCP in reaching out to tribal populations. Though outside the purview of RNTCP, mobilization of the people in these regions in collective action for poverty alleviation will pave the way for a better and sustainable model for TB control in tribal-dominant areas.

Current Achievements

Inadequate database of tribal population based disease burden and health care utilization poses severe constraints to effectively plan and or evaluate any health care intervention in tribal areas (THDP 2003). With the coming up of Integrated Disease Surveillance Project (IDSP) which would cover phase-wise all states of India such database would become available soon (IDSP 2003).

The analysis of the RNTCP data over a one-year period from 3rd quarter 2002 to 3rd quarter 2003, shows that the performance in terms of case detection and cure rates in a sample of predominantly tribal districts in the tribal-dominant states of India, was similar to the rest of India. However, in view of the recent implementation of RNTCP in most of the tribal districts across the tribal belt, these findings need to be viewed cautiously over a longer period of time before arriving at any conclusions. The delayed start in the implementation of RNTCP in the predominantly tribal districts throughout India, also throws light on the difficulties encountered by the RNTCP in covering these populations.

1) Despite the Government of India's special provision in the tribal sub-plan areas which include additional health facilities, viz., one PHC catering to 20,000 persons instead of 30,000, one sub-

center for 3000 instead of 5000 people, provision of more mobile clinics, allopathic, homeopathic, ayurvedic, unani and siddha dispensaries, access to health care is a problem for tribals (IDSP 2003).

- 2) The remoteness of many tribal villages from the nearest PHC / General Hospital, inadequate accountability and monitoring of health service delivery to tribal populations, unhelpful attitudes of health service personnel, manpower at health facilities either not available or available only for a very small window of time have been documented as constraints to access and utilization of health services in tribal areas (THDP 2003). Besides, poor or incorrect knowledge among tribal population also dictates inadequate health seeking behavior.
- 3) Some of the problems faced by programme managers while implementing RNTCP in tribal areas based on data from Keonjhar district in Orissa (AC Nielsen-ORG 2005) are as follows:
 - a) Significant proportion of tribal population live in small settlements and there is lack of adequate health staff for extension of services at an accessible distance to this population
 - I. Limitations of non-tribal health workers in motivating the tribal patients to complete treatment by mobilizing the community support.
 - II. Inadequate transport facilities make it difficult for patients to reach health functionaries/health centers on time.
 - b) In order to overcome these problems community-based DOT has been introduced by involving the Anganwadi Workers (AWWs) who are the community based child health workers under the Government's Integrated Child Development Scheme (ICDS). These women with at least primary education belonging to the same village where they are expected to serve, provide IEC, identify chest symptomatics, provide DOT and undertake defaulter retrieval. Their activities are monitored by the multipurpose health workers of the local PHC, the STS under RNTCP, the Medical Officers and the ICDS supervisors. The AWWs receive an honorarium of Rupees 500 per month towards their services relating to ICDS but are not paid extra for TB related services. Several problems have, however, been reported like increased work load, poor commitment due to lack of monetary rewards and their low educational attainments and poor training resulting in their poor comprehension levels and professional skills.
- 4) The social assessment survey conducted in 3 tribal districts Nandurbar in Maharashtra, and Jhabua and Mandla in Madhya Pradesh (AC Nielsen-ORG 2005) found the following:
 - a) The only facilities available in the tribal villages, which were scattered across 1- 4 hamlets (50 150 households) were a primary school and Anganwadi Center. Most of the facilities like bank, post office, bus stop etc were located outside the village within a radius of 1 6 km. Railway stations were far (20 65 km) from the villages. While some of the facilities were situated at a walk-able distance and some were connected through bus. In the study villages of Mandla, the health services were delivered to selected villages through the sub center and PHC within the village itself, whereas in Jhabua, these services were reported to be available within 1 2 km distance. More or less all the villages were approachable through a kutcha road from the main traffic road.
 - b) Barring a very few, most of the tribals were illiterate. A majority of them were employed as agriculture labor. They had been staying in the same village since birth.

- c) Stigma was relatively less among this population compared to the vulnerable population in urban areas.
- d) The first point of help seeking for most tribal TB patients, as documented by the survey, was traditional healers following home remedies, the gap between onset of symptoms and help seeking ranging between 4 and 5 months. A study in Vizianagaram district of Andhra Pradesh (Banerjee A et al 2004) also demonstrated similar health seeking behavior among tribals. The delay between onset of symptoms and initiation of treatment under the RNTCP was 8 months or more for 30% of the patients in this study. This study also documented that though the majority of the THs were not aware of the cause or spread of TB, more than 90% believed TB is curable and most preferred to refer patients to a PHC or private allopathic practitioners when they were unable to treat their clients rather than another TH.
 - I. The method most often employed by traditional healers was witchcraft using pulses and other seeds, for both diagnosis and treatment.
 - II. Tribals usually resorted to these kinds of treatment because of local beliefs, cost and lack of awareness about treatment options.
- e) Patients in tribal areas had to travel long distances to reach Microscopy and DOT centers.
 - I. Patients traveled between 1.5 to 10 km to reach the DOT centers in the 3 districts studied.
 - II. Inaccessibility was an issue to tribal patients more when they had to visit a facility for initial diagnosis, though later on the treatment facility/ DOT provider was relatively close to them.
- f) Community participation in the RNTCP was very poor, public-private partnerships were in the infancy.
- g) The traditional healers, who are an integral part of the tribal community and can influence large sections of the population, were also not integrated into the programme.
 - The study from AP (Banerjee A et al 2004) found that public health functionaries felt THs would be good DOT providers because of their status in the community. THs were also perceived by these functionaries to be always available and hence easy to supervise.
 - II. Most NGOs contacted in this study (Banerjee A et al 2004) were working with THs in the area of health and IEC, though none of them was collaborating with the RNTCP. They were willing to mediate between THs and RNTCP management for effective implementation.
- h) Community volunteers and opinion leaders were not aware of the programme. This could be attributed to the lack of IEC activities in tribal areas.
- i) Exposure to IEC on TB, DOTS and RNTCP was very low among these groups, relatives, friends, government hospitals and sub-centres being the sources of information reported by most of them.
- j) The AP study (Banerjee A et al 2004) found that NGOs were willing to mobilize and motivate the community with the help of IEC, according to the local needs.

Issues to be addressed

- Poor physical access of tribal population to diagnosis and treatment under the RNTCP
 - 1. Difficult terrain and sparsely distributed tribal population in forest and hilly regions
 - 2. Locational disadvantage of PHIs
 - 3. Weak primary health care infrastructure including diagnostic equipment
 - 4. Vacant Posts at PHIs
 - 5. Non availability of staff for supervision and monitoring

- 6. Long distances to travel to reach to Microscopy centres and PHIs
- IEC activities not in tune with the tribal vocabulary, beliefs and practices
 - 1. Lack of conviction among patients about the curability of the disease
 - 2. Focus on "duration of TB treatment" in IEC activities
- Non-involvement of traditional healers and weak community participation
 - 1. Inadequate involvement of NGOs and CBOs
 - 2. Inadequate social mobilization and poor community participation
- Public health services not being client friendly in terms of timing and cultural barriers inhibiting utilization
 - 1. Attitude of para medical staff towards patients needs improvement
- Lack of integration with other health programmes and other social and developmental sectors

Action Plan proposed:

The Revised National Tuberculosis Control Programme already has special enhanced norms for tribal areas in that there is relaxation for setting up Designated Microscopy Centres and Tuberculosis Units as compared to the non-tribal areas. Whatever is proposed in this plan is additional. The existing norms would continue as they are.

For assistance in implementing this plan, the STCSs and DTCSs will collaborate closely with the local ITDA (Integrated Tribal Development Agency). These bodies go by different names in different states and wherever allusion is made to the Tribal Development Agency in this plan, it refers to the governmental Tribal Development Agency in that locality. NGO bodies working for tribal development are considered as separate entities. The DTCS will correspond with the ITDA to identify a nodal person, who will thereafter liaise with the DTO to carry out activities related to the Tribal Action plan.

The RNTCP Tribal Action Plan has the following objectives:

- 1. Encourage tribal populations to report early in the course of illness for diagnosis.
- 2. Enhance treatment outcomes amongst tribal populations
- 3. Promote closer supervision of tribal areas by RNTCP staff

Objective	Actions
Improve service coverage and provide quality RNTCP services	 Encourage and support STS and STLS in tribal areas to reach peripheral areas, by providing additional incentives (like tribal area allowance). Provide travel reimbursements to patient and one attendant for travel for follow-up and treatment Organize local public felicitation of DOT providers and STS, STLS along with the staff contributing substantially to the RNTCP Ensure availability of RNTCP-trained staff and infrastructure at the PHC level (filling up of vacancies, relaxation of appointment norms, dealing with staff turnover by having waiting lists, ensuring availability of microscopes and lab consumables). LTs posted at tribal DMCs will also be supported with tribal area allowance. The two-

Improve accessibility, acceptability, and utilization of services	 wheelers maintained at TUs having tribal DMCs will be allowed enhanced vehicle maintenance rates similar to that in other difficult areas. Arrange IPC training to all cadres of providers for making them more sensitive to patient needs Use available mobile units in place to increase outreach of DOTS in difficult to reach areas Train peripheral health workers in RNTCP Introduce sputum collection and transportation o Using community youth o Using outreach workers like Anganwadi workers, ASHA etc Seek help of locally available and employed volunteers trained in health in case detection and case holding Seek help of cured TB patients and literate tribal youth in spreading awareness about treatment availability for TB Offer sensitization and training to traditional healers regarding the uninterrupted and free availability of TB medicines under the RNTCP.
Promote community participation and inter-sectoral coordination	 Involve NGOs, traditional healers, private practitioners, AWWs, CHWs, cured patients, tribal youth and other community based volunteers in IEC activities and to provide DOT Involve NGOs, PRIs, tribal heads, elected representatives, SHGs and CBOs in supervision and monitoring of DOT provision Involve teachers and students in tribal residential schools (Aashram schools) in provision of DOT Develop locally relevant IEC messages and patient education material using local vocabulary, prepared by taking help of local primary school teachers and members of PRIs Use local chemists, grocery shops and other places frequently visited by tribals, to disseminate information on RNTCP and DOTS Use the opportunity offered by village fairs and festivals as well as weekly market days to inform tribal population regarding DOT Link IEC in RNTCP with the social mobilization campaigns held under the Integrated Disease Surveillance Project, which is being implemented in nine states in the first phase (Tamil Nadu, Andhra Pradesh, Karnataka, Maharashtra, Mizoram, Madhya Pradesh, Himachal Pradesh, Kerala and Uttaranchal)
Operational research	 Qualitative study to understand the barriers in utilization of RNTCP services in tribal areas Evaluation of IEC messages prepared in locally relevant tribal dialects / language Cost benefit analysis of incentives provided to patients for taking DOT vis-à-vis treatment outcomes in tribal districts Evaluate case detection and treatment outcome trend in tribal districts

Targets and Indicators

- Increasing trends of case detection and treatment success in a sample of pre-defined districts with higher proportion of tribal population
- Treatment success and default rates of female patients compared to male patients
- Locally adapted IEC messages and patient education material in place
- Operational research study results available to assist in further planning and implementation of RNTCP in tribal pockets

Newer Strategies

- Use community meetings of PRIs as a forum to initiate community-based activities like early detection, sputum collection, DOT, monitoring and social support for needy patients
- Mobilize political will and involvement at local levels through involvement of local elected representatives, and PRIs
- The District Collector, BDO and gram sevaks could be used to institutionalize PRIs to garner support for community mobilization for DOTS
- Involving Aashram school teachers and students to provide DOT
- Involving primary school teachers in disseminating IEC material
- Using chemists, grocers' shops and other places frequented by tribals to disseminate information on DOTS

Resources required: Manpower and Finances

Costs involved in:

- It is proposed to pay a higher rate of salary to contractual STS and STLS posted at TUs with tribal area DMC, at the rate of an additional Rs.1000/- over and above the regular salary as a tribal area allowance.
- Two wheeler maintenance at TUs having DMC in tribal area will be allowed at the rate of Rs. 30,000 per annum.
- Training of community-based DOT providers approved at RNTCP rates for training.
- Sputum collection and transport Rs.100 to Rs.200 per month per volunteer based on number of visits to DMC to hand over collected sputum. An amount of Rs.100 per month would be given if there is a minimum of one visit to the health centre per week with collected samples. For more than one visit per week to the centre, an amount of Rs. 200 per month will be paid to the volunteer.
- Travel costs as bus fares for patients and one attendant will be provided for travel for follow-up and treatment. To cover these costs the patients will be given an aggregate amount of Rs. 250/- which would be given on completion of treatment.
- Tribal area allowance for Lab Technicians who take up posting at tribal areas as enhancement of pay of Rs. 1,000 per month over and above the regular pay.
- Production and distribution of locally appropriate IEC material for patient and community like flip charts, information leaflets
- Supervision and monitoring of community-based treatment

References:

a) Census of India. 1991 Part II B (i) PCA- General Population (Vol. I & II). Downloaded from <u>http://www.education.nic.in/htmalweb/stat1.html on 11th January 2004</u>.

b) Integrated Disease Surveillance Project 2003: Tribal Development Plan. Downloaded from http://www.mohfw.nic.in/TDP.pdf on 11th December 2004.

- c) Mutatkar RK. 2004. *Report on Health Issues in Nandurbar District: Maharashtra Human Development Action Research Study.* The Maharashtra Association of Anthropological Sciences, Pune, India.
- d) Tribal Health Development Plan. Tamil Nadu 2003. Downloaded from http://www.tnhealth.org/notification/tdp.pdf on 18th March 2005.
- e) AC Nielsen-ORG. 2005. *Social assessment survey for RNTCP.* AC Nielsen ORG Centre for Social Research, New Delhi, India.
- f) Jagga Rajamma K, Rao Vijaya Bhaskara D, Narayana ASK, Ramachandran Rajeswari, Prabhakar R. 1996. Health seeking behaviour, acceptability of available health facilitiesand knowledge about tuberculosis in a tribal area. *Indian Journal of Tuberculosis*, **43**:75.
- g) Banerjee A, Sharma BV, Ray A, Kannuri NK, Venkateswarlu TV. 2004. Accepatability of traditional healers as directly observed treatment providers in tuberculosis control in a tribal area of Andhra Pradesh, India. *International Journal of TB and Lung Diseases*,**8** (10): 1260-1265.