The role of private health sector engagement in TB control in India

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CHAPTER 5

Role of professional bodies in TB control: An untold story of the Indian Medical Association in fighting TB

5.1 Introduction

Tuberculosis (TB) continues to be a major public health threat by claiming millions of lives each year. India has an estimated 2.8 million new TB cases occurring annually which is 27% of the global incidence[1]. India's national TB control programme (NTP) was established in 1962 under the Ministry of Health (MoH). A review by WHO held in 1992 concluded that NTP, despite thirty years of its existence, had not created any significant epidemiological impact on TB burden of the country[108]. Failure in meeting standards in diagnosis and treatment, low rates of treatment completion and lack of adequate documentation on treatment outcomes were reported as the major weaknesses. To address the weaknesses, Revised National TB Control Programme (RNTCP), based on the principles of the WHO-recommended Directly Observed Treatment, Short course chemotherapy (DOTS) strategy, was implemented in the country in 1997[108].

In India, vast majority of qualified doctors, dispensaries and hospitals are in the private sector[109]. As a result, private health sector provides care to significant proportions of TB patients also[15,60]. About 60 to 70% of TB patients in India first seek care from private health care providers[8-10]. There are close to one million qualified and licensed doctors in India, majority of whom work in the private sector [15,60]. Private health care sector in India is very diverse and consists of

multiple types of care providers that are largely disorganized and to a great extent unregulated[46]. While 70% of the Indian population live in rural areas, only a third of government doctors work in rural India[110]. Therefore, rural India is served mostly by private health care providers. Similarly, urban areas have higher numbers of private health care providers where the primary health care network of the government is not utilized by people as much as in rural areas[110]. Unlike the public health sector, private health sector in general lacks systems for ensuring adherence to the diagnostic algorithm designed by RNTCP for early and accurate diagnosis of TB cases. Quality of treatment also varies across private health sector providers due to lack of adherence to standardized treatment guidelines[16,17]. In addition, private health sector is typically not designed to perform public health actions for ensuring treatment adherence and to record treatment outcomes of TB patients. Due to these reasons, TB patients who seek care from the private health care providers would face inordinate delays in being promptly diagnosed[70]. Similarly, TB patients are likely to receive inappropriate, inadequate or interrupted treatment at private health care facilities[8]. While delayed diagnosis results in increased morbidity, mortality or spread of the disease in the community, suboptimal treatment can cause death of patients or accelerated generation and spread of mycobacterial resistance to TB drugs. Multidrug-resistant TB (MDR-TB) is more difficult and expensive to treat compared to drug-susceptible TB[18,111]. Whereas RNTCP achieves high treatment success rates for patients with drug-susceptible TB, without standardized treatment and prompt follow

up, treatment success in the private sector can be as low as 30%[15]. Considering the importance of private sector in health care, RNTCP since its inception, has been making efforts to engage private health care providers[26]. In this regard, the Central TB Division (CTD), RNTCP's national programme management unit, sought assistance from the Indian Medical Association (IMA). IMA, a voluntary organization, is the professional association of the doctors practising modern system of medicine. IMA with its 1650 branches across the country has over 200 000 doctors as its members[75]. In the transition from NTP to RNTCP, while the basic diagnostic tools and drugs remained essentially the same, there has been repackaging of approaches in the diagnosis and treatment based on the principles of the DOTS strategy. However, the modern medicine practitioners in the private health care sector, in general, opposed RNTCP. This was a major reason for RNTCP to seek the help of IMA in engaging private health care providers. This article aims to bring to light the untold story of IMA's engagement in TB control as a close partner of RNTCP. The article also touches upon the operational challenges that IMA faced in the process.

The objectives of this paper are to study 1) the role of IMA in the engagement of private health care providers in TB control and what is its relevance and 2) the lessons for India and other countries to learn from the unique endeavor of engagement of medical professional associations in TB control.

5.2 Methods

We used standard WHO definitions as given in 'Definitions and reporting framework for tuberculosis – 2013 revision (updated December 2014)[112]. Public-Private Mix (PPM) strategy became formalized by the establishment of PPM subgroup of the DOTS Expansion Working Group in 2000[113]. Therefore, the search for literature was for the period from 2000 to 2017. Though there are no peer-reviewed publications specifically on the processes of IMA's PPM projects, information about IMA's engagement is available in many publications of IMA, RNTCP, and other agencies or researchers. The contribution of IMA's engagement as additional TB cases notified is reflected in some published articles. For our study, we considered available published articles on the collaborations between IMA and RNTCP, internal memos and policy documents.

We reviewed the tuberculosis section of the WHO website to collect latest information on TB epidemiology, current TB control situation, policy guidelines and TB control data with focus on India[114]. We also searched 'PPM Resources' at WHO website[115]. WHO also publishes an annual report on global TB control the purpose of which is to provide an annual assessment of the global TB epidemic and the progress made in implementing the global TB control strategy. The latest WHO report published in 2017, which has used information and data from 2016, was reviewed[1]. We also gathered information from various documents available at the RNTCP's website which includes programme guidelines, Technical and Operational Guidelines,

National Strategic Plan and guidelines on the programmatic management of drug-resistant TB (PMDT) and TB/HIV[116]. We reviewed annual performance reports published by RNTCP which contain qualitative information as well as RNTCP's annual performance data[116]. We collected information on IMA-PPM from peer-reviewed articles on PPM. We also looked at articles published by the journal of Indian Medical Association, peer-reviewed articles on other journals, and publications of organizations such as CTD, WHO, American Thoracic Society and the Global Fund. We conducted interviews with officials of IMA especially the ex - IMA national coordinator for RNTCP who was associated with RNTCP since 2000 by starting the first RNTCP-designated microscopy centre in the private health sector at his own hospital[25]. We also interviewed the erstwhile PPM advisor to IMA and a RNTCP consultant of IMA[117,118]. We held discussions with RNTCP's key staff at CTD and in Kerala state[119,120]. We met many present and ex- RNTCP staff.

We considered the projects that qualified as PPM as per WHO definition in which IMA was engaged[115]. We defined a project as IMA-PPM project where IMA formally collaborated with RNTCP. We used two tools namely 'PubMed/MeSH' and 'Google Scholar' for literature search. The search words used were Indian Medical Association AND TB, Indian Medical Association AND TB AND Public Private Mix, Indian Medical Association AND Public private mix, Indian Medical Association AND Revised National Tuberculosis Control Programme, Indian Medical Association AND

Private sector AND TB, Indian Medical Association AND Tuberculosis. Only articles published in English were included.

5.2.1 Online questionnaire survey

An online questionnaire survey was also conducted as part of the study. A list of major reasons of opposition from private medical practitioners to RNTCP was created after discussions with selected experts in TB-PPM in India. The RNTCP policies and the major reasons for opposition grouped under four major categories namely diagnosis, treatment, patient-related and physician-related were listed. This list was produced based on the discussions with selected TB PPM experts of India which was validated by the online survey among PPM experts/stakeholders representing RNTCP functionaries at national and subnational levels, private health sector providers, technical agencies including WHO, donor agencies, academia, researchers, IMA, social activists and people affected by TB in India who have been directly associated with RNTCP and PPM[121]. These experts were selected from the pool of experts used by RNTCP in its various functions. Survey was sent to 28 experts and we received 21 responses which gave a 75% response rate. The results were compiled and analyzed. (see Table 1)

The survey clearly validated the reasons for opposition of the private sector to the policies of RNTCP. All except one reason received agreement by majority of the respondents. In the case of one reason (while RNTCP didn't advise sputum culture as a primary diagnostic test, private medical practitioners often wanted to use culture as a

diagnostic/confirmatory test complementary to other tests), there was agreement from only 42% of the respondents. However, in this case, the percentage disagreed was 47% while 11% was not sure of the response.

In addition to the issues shown in the table below, private medical practitioners had concerns about potential impact of RNTCP on their clientele which used to come out in private conversations with private medical practitioners[118]. This was mainly due to RNTCP's insistence that services provided to presumptive as well as confirmed TB patients by private health care providers had to be as per the RNTCP guidelines and by using laboratory reagents and drugs supplied by the government which the private medical practitioners had to offer free of cost to the patients[18,118]. In addition, private medical practitioners were expected to refer their patients to public health facilities whereas they had the fear of losing their clientele or their patients facing unfriendly treatment at public health facilities[117,118]. Private medical practitioners were also opposed to the supervision by the RNTCP staff. The main reasons for this were alleged policing and harassment by government staff and the reluctance of the private health sector to provide access for government staff to their own registers and records[117,118]. These concerns were not included in the survey because these were often not explicitly expressed by the private care providers. This information came from the in-depth interviews with some of the PPM experts[117,118]. This is the background where RNTCP decided to take the help of IMA to reach the private health sector.

Table 1.

RNTCP policies and reasons for private medical practitioners[25,117,119,120].

RNTCP policies and reasons for opposition from the private health sector	Percent (%) of experts in agreement
Diagnosis-related issues	
One of the main reasons for private medical practitioners not preferring smear microscopy for diagnosing pulmonary TB was low sensitivity of the test	**55**
Multiple visits the patients had to make, long queues and unfriendly behaviour at public sector hospitals were some of the important reasons for the private medical practitioners' lack of preference for sending their patients to public sector hospitals for doing smear microscopy	**95**
private medical practitioners opposed the restrictions by RNTCP on using X-Ray in the diagnosis of pulmonary TB as the private practitioners wanted to use X-ray to rule out conditions other than TB and for clinical assessment of the patient during treatment	**95**
While RNTCP didn't advise sputum culture as a primary diagnostic test, private medical practitioners often wanted to use culture as a diagnostic/confirmatory test complementary to other tests	**42**
Private medical practitioners preferred to use commercial serological tests for diagnosing TB RNTCP discouraged the use of these tests	**95**

Treatment-related issues	
While RNTCP insisted on using RNTCP-supplied drugs packed in patient-wise boxes for the entire duration of treatment of TB, private medical practitioners in general were not keen to use these drugs due to lack of trust in the quality of drugs provided by the government	**63**
While RNTCP insisted that patients had to be treated using one of the three categories of drugs supplied by RNTCP, private medical practitioners were not keen to use them as drugs of same doses had to be given to patients of a wide range of body weights which, they felt, could lead to under dosing or overdosing	**74**
While RNTCP advised 4 drugs for new and 5 drugs for re-treatment patients (first line treatment), private medical practitioners often wanted to prescribe more drugs and not be limited to the RNTCP-recommended drug regimen	**94**
While RNTCP insisted on treatment of 6 months for new and 8 months for re-treatment TB patients, private medical practitioners often wanted to prescribe drugs for longer durations	**68**
While RNTCP advised only 3 drugs for smear negative/Extra pulmonary TB cases, private medical practitioners in general preferred to use more drugs	**95**
While RNTCP drugs were to be consumed by patients only three days a week, private medical practitioners preferred daily drug consumption by their patients	**100**
While RNTCP strictly discouraged empirical treatment with anti-TB drugs and insisted that 'treatment had to be started only if TB was the diagnosis and once started, treatment had to be completed until the last dose', private medical practitioners wanted to try anti-TB drugs (when in doubt) for a few days and withdraw if there was no progress	**89**

Patient-related issues	
While RNTCP insisted directly observed treatment (DOT) for TB patients, private medical practitioners in general were opposed to it due to concerns about patients' confidentiality	89
While RNTCP insisted on smear microscopy as the follow up test to assess improvement and to confirm cure for pulmonary TB patients, private medical practitioners wanted to use X-ray and other tests for the same purpose	89
While RNTCP insisted on notifying all TB cases by designated government staff, private medical practitioners opposed it for confidentiality and stigma issues	68
While RNTCP insisted on patients' home visit by health staff for initial health education and follow up, private medical practitioners opposed it for stigma and confidentiality issues	74
Physician-related issues	
While RNTCP held the view that completion of TB treatment by patients was the responsibility of the doctor who started anti-TB treatment, private medical practitioners didn't accept it due to lack of mechanisms for following up the patients until treatment completion	95
While RNTCP insisted in tracking and bringing back the patients when they interrupted TB treatment, it was not practical for private medical practitioners to do it as they had no mechanism to retrieve such patients	100

5.3 The process of partnership between RNTCP and IMA

Initially, IMA was also skeptical about RNTCP's claims as a better programme compared to the previous NTP[25,117]. In addition, IMA also had concerns about the private medical practitioners' apprehensions about possible impact on their clientele that RNTCP

would cause[25,117]. In the meantime, certain pilot PPM projects had come up in New Delhi (1999), Kannur (2000) and Kollam (2001) where local IMA units played a key role[25,26,78]. The New Delhi project relied on private health care providers to refer patients with suspected tuberculosis to public sector facilities for smear microscopy.

By 2000, when Kerala, a state in the south of India, became the first state to achieve hundred per cent geographic coverage of RNTCP, CTD advised the state to systematically engage private health sector in TB control. Subsequently, Kerala state administration of RNTCP chose Kannur and Kollam districts as pilot districts for private health sector engagement.

Kannur district developed a model based on a private laboratory surveillance network for sputum smear microscopy where free training and quality assurance supervision were provided by RNTCP[78]. The laboratories participated on a voluntary basis and there was no signed agreement between RNTCP and the laboratories. IMA played a major role in developing the model and the project had the advantage of the district TB officer (DTO) of Kannur officiating as the secretary of IMA's Kannur branch. Sensitization workshops were held at IMA branch meetings.

In Kollam district, RNTCP encouraged smaller private hospitals, clinics and individual practitioners to refer presumptive TB patients to RNTCP facilities and simultaneously supported relatively bigger private hospitals with laboratory facilities to set up RNTCP-

designated microscopy centres[25,117]. As PPM activities were slowly picking up in the whole district, Punalur, a sub district, was chosen for intensified PPM activities[25,117]. One of the reasons for picking Punalur was the presence of 'Deen hospital', a private facility, owned by Dr. Asokan RV, the then secretary of IMA in Kerala. Deen hospital was designated as a RNTCP-microscopy centre which, as per RNTCP's basic criteria, had a physician, laboratory for sputum smear microscopy, laboratory technician, space to safely store RNTCP drugs, space with privacy for supervised drug consumption by TB patients, and staff to provide treatment supervision and counseling support to TB patients. RNTCP organized training of staff and provided laboratory consumables, anti-TB drugs and recording and reporting tools. A memorandum of understanding was signed between RNTCP and Deen hospital. Treatment supervision of the patients living in the neighborhood was agreed upon as the responsibility of the Deen hospital while RNTCP staff took care of health education, patient counseling, follow-up home-visits, recording of treatment progress and reporting of treatment outcomes of all patients[25,26,117]. The Director of Health Services of Kerala state inaugurated the Designated Microscopy Centre, which demonstrated political will of the government and RNTCP to partner with private health sector and IMA[122].

WHO's Country Office in Delhi provided technical assistance to both Kannur and Kollam pilots through the WHO-medical consultants posted in Kerala. RNTCP showcased New Delhi, Kannur and Kollam

models as earlier examples of PPM where IMA took a facilitator's role by acting as an interface between RNTCP and the private health sector[78,122,123]. IMA forums and publications gave wide publicity to the project[25,117].

The results of PPM models in terms of increased TB case notification from the private health sector motivated IMA to further expand PPM to the entire state of Kerala based on the model developed in Kollam district which focused on training private medical practitioners and then designating them as a provider of RNTCP services. IMA thus trained around 1150 private medical practitioners using a funding organized by WHO India country office. Seeing the success of this expansion in Kerala state, CTD advised IMA to further expand the model to a few more states of India as a regional project which happened by 2005[124]. The repeated success in engaging private health care providers and notifying additional TB cases prompted CTD to develop a new project to further expand this model which received The Global Fund's Round-6 funding where IMA became a subrecipient of funding to RNTCP[109,125]. IMA simultaneously worked with Eli Lilly Foundation and trained doctors on RNTCP in Himachal Pradesh and Madhya Pradesh states focusing on training of private health sector doctors[25]. In the process of systematic evolution from pilot projects in Kannur and Kollam districts to a national partnership between IMA and RNTCP, relationship between the two organizations became stronger. IMA also advocated among its members for the engagement of private health sector in RNTCP

through its various forums including the Journal of Indian Medical Association[25,126]. IMA summarizes its PPM strategy around four components; profession-based approach, non-financial incentives, one-on-one peer sensitization and adherence to International Standards for TB care[45,127]. IMA called it a profession-based approach because the association engaged only the doctors and health facilities that practise modern medicine. Training, certification and endorsement of private health sector facilities to provide RNTCP services were the examples of non-financial incentives. One-on-one peer sensitization was meant for doctors who couldn't find time for attending training programmes. This was done by meeting doctors at their facilities and providing information about RNTCP.

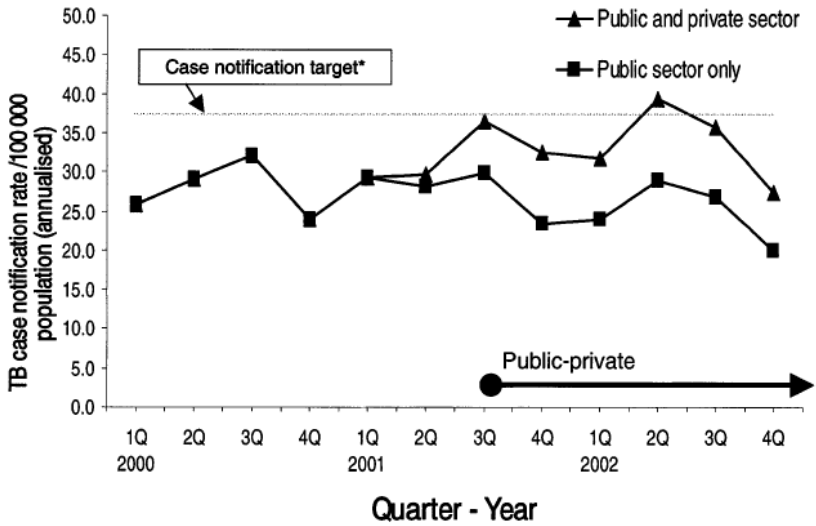
The pilot projects in Kollam and Kannur recorded high percentages of participation of the targeted private health care providers. Within a year, both districts recorded over 20% increase in case notification[25,78]. Figure 1 shows the increase in case notification in Kannur district during the period 2000-2002[78]. Both projects achieved treatment success rates above the RNTCP target of 85% [25,78].

As given in Tables 2 and 3, the IMA-Global Fund project covered 169 districts and 532 IMA branches serving a population of 415 million and over 55 000 IMA members. The project in a period of 8 years from 2007 to 2015 reached 103 254 private medical practitioners practising modern medicine through continuing medical education and trained 163 86 of them. The project also

notified 112 409 TB cases. Over 4000 practitioners signed agreements with RNTCP and close to 5000 'DOTS centres' were established[128]. The project thus demonstrated the potential of IMA in engaging private medical practitioners practising modern medicine and thereby increasing TB cases notified. While the contribution of this project as a successful demonstration model has to be recognized, it has to be remembered that the achievement in terms of numbers is not big especially in India where the number of qualified doctors practising modern medicine is about a million and more than a quarter of TB cases occur. Despite being a very big project that ultimately covered 16 States/Union territory, 25% of the districts and more than a third of the population of the country, it could reach only slightly over 100 000 private medical practitioners while less than 1000 doctors signed a Memorandum of Understanding with RNTCP. In addition, only 112 409 TB patients were notified in the whole duration of the project period.

Figure 1.

Public and private health sector tuberculosis case notification rate, new AFB-positive patients, Kannur District, 2000–2002[78].



There is a seasonal variation observed in India due to which number of cases will be the lowest in the 4th quarter and the highest in the second quarter of the year.

5.4 Lessons learned from the IMA-RNTCP partnership

5.4.1 Lessons for India

IMA's engagement helped RNTCP realize the advantage of engaging professional associations at the initial planning stages of policy development and revisions. RNTCP also realized the importance of addressing the reluctance of private health care providers in partnering with RNTCP for fear of losing their clientele. This learning convinced RNTCP to introduce formal mechanisms for partnerships with private health sector which led to the development

of different RNTCP schemes for partnerships that have the provision of appropriate compensations and incentives to private medical practitioners [26,28]. Absence of a formal agreement between IMA and RNTCP is considered as a gap which has led to situations where lack of ownership from either or both parties has created bottlenecks for the projects. Abrupt ending of funding to the IMA-Global Fund project from the government and the disorderly and unsystematic closure of the project is cited as an example for this gap by the IMA [25]. In addition, the absence of a dedicated focal point for managing this partnership at RNTCP was a major gap [25,117,118].

Table 2.

States and Union Territory covered by the Global Fund project of IMA[129]

Name of State/Union Territory	Number of districts	Number of IMA branches	Number of IMA members	Estimated population (in millions, 2011 Census)
Uttar Pradesh	75	113	10,935	199.3
Punjab	22	59	4,700	27.7
Haryana	22	43	3,124	25.4
Maharashtra	36	162	19,291	112.4
Andhra Pradesh	13	154	16,470	49.4
Chandigarh	1	1	701	1.1
Total	**169**	**532**	**55,221**	**415.2**

Table 3.

Achievements of IMA-Global Fund project from 2007 to 2015 [129]

Indicators	Achievement (Cumulative)
Number of Reviews and workshops held at National and state Level	98
Number of issues of dedicated RNTCP-IMA Newsletter and IMA Journals published and distributed to all IMA members in 15 projects states and a Union Territory	31
Number of Continuing Medical Education sessions organized for doctors	545
Number private medical practitioners reached through continuing medical education	103,254
Number of private providers trained in RNTCP using RNTCP Module for private practitioners and International Standard of Care Guidelines	16,386
Number of private health care providers signed Memorandum of Understanding with RNTCP	923
Number of IMA members from the 15 project states and 1 Union Territory who have signed an Memorandum of Understanding under one of the RNTCP PPM schemes	4,446
Number of private peripheral Health Institutions initiated	1,828
Number of DOTS centres started	4,709
Number of Designated Microscopy Centres approved in the project sites	107
Number of TB patients notified by private medical practitioners	112,409

IMA also realized its limitations as a voluntary organization, without jurisdictive authority, in engaging private health care providers in RNTCP. The important limitations listed by RNTCP are 1) not all private medical practitioners are members of IMA 2) doctors are not legally bound to follow IMA's appeals and 3) IMA is not equally organized in all states of the country. These resulted in variable influence of IMA on its members across states which made it difficult to generate the same level of motivation among all branches of IMA across the country. Though IMA could mobilize private medical practitioners to attend training and capacity building workshops, following up with them to designate their facilities as RNTCP-centres has been a challenge because IMA didn't have the infrastructure and resources for that. At the same time, RNTCP staff who have been already burdened with their routine work were unable to supplement this gap. Increase in case notification from private health sector after the private medical practitioners got access to the RNTCP's web-based notification system has been an indication for the need to expand electronic notification to the private health sector. Absence of a formal agreement stating the respective roles and the frequency of formal review meetings between IMA and RNTCP resulted in reduced levels of interactions between the organizations. Absence of a focal person at CTD for IMA-related matters has also contributed to weakening of the relationship. RNTCP had no earmarked funding for IMA engagement which made the formal interactions rather ad hoc.

RNTCP and IMA learnt important lessons from PPM pilot projects also. For example, the intensified PPM in Punalur sub district provided an important lesson about the risk of too much of decentralization of laboratory services. Recruitment of large number of private health care providers in PPM network resulted in additional workload of supervision which disrupted the routine work of supervisory staff. This in turn impacted the quality of diagnostic and treatment services. This experience informed the policies and RNTCP in turn decided the criteria of at least 60 adult outpatient attendance per day to designate a private health care facility as a microscopy center.

5.4.2 Lessons for other countries

Other countries that have similar situation like India with high TB burden, robust NTP, widespread private health sector and presence of a professional association of physicians can learn from the IMA-PPM model. Moreover, many of the high TB burden countries with private health sector as a major player in health care are facing similar problems in TB control as India does. For example, countries like Pakistan, Bangladesh, Myanmar, Thailand, Vietnam, Indonesia Philippines, Nigeria, Kenya and Ethiopia have significant proportions of TB patients seeking care from private health care providers[1]. Such patients are likely to reach the NTP very late or may not to reach at all resulting in most such patients receiving suboptimal or no care for TB. Large proportions of such cases also wouldn't get notified to the

respective NTPs[1]. In many of these countries, professional organizations of doctors would have prominent presence and considerable influence on private health sector and doctors. Lessons from India could inform the NTP policy makers and the leaders of professional organizations in these countries.

5.4.3 Achievements of IMA-RNTCP partnership

RNTCP using its experience and the lessons learnt from the PPM pilot projects, including those IMA-PPM models, developed national guidelines for the engagement of private medical practitioners[26]. IMA took part in the development of this document to reflect the perspectives of the private health care providers[25]. RNTCP in 2003 sought IMA's support in scaling up PPM at national level following which IMA's president in a declaration endorsed RNTCP and urged all the doctors to extend support to the national program. Incidentally, IMA's national president had already implemented RNTCP at his private hospital which was a RNTCP-designated microscopy centre in Kannur district where PPM was pilot tested from 2000[25,117]. In 2004, RNTCP developed an abridged version of training module for private practitioners, which replaced the previous module which had very descriptive chapters on administrative, programmatic and operational aspects of RNTCP that were not perceived as relevant for private practitioners. In 2006, IMA organized a national workshop on RNTCP which gave birth to the National Working Group of IMA for TB. IMA nominated Dr. Asokan, IMA leader from Kerala, as the National Coordinator of the working group with the responsibility of

leading the partnership with RNTCP. RNTCP in turn coopted IMA into the national working group on private sector. RNTCP also invited IMA to attend its biannual periodic review meetings and the WHO-led joint programme monitoring missions held every third year. In 2007, IMA formed IMPACT (Indian Medical Professional Associations' Coalition Against TB), a consortium of the relevant professional associations of specialist doctors such as pulmonologists, pediatricians and internal medicine doctors[25,109,117].

IMA was invited to the global steering committee that was set up to draft International Standards for TB Care (ISTC) in 2006 which was organized by the Tuberculosis Coalition for Technical Assistance, a global project funded by the USAID[45]. In 2007, IMA endorsed ISTC and urged the doctors to follow the standards prescribed in the document for diagnosing and treating TB patients [25,130]. IMA also endorsed 'Patients' charter for tuberculosis care' which defined TB patients' rights and responsibilities. IMA, together with other partners, assisted RNTCP in the development the Standards of TB Care for India[45].

Upon CTD's recommendation, WHO nominated IMA to the Strategic and Technical Advisory Group for TB which meets every year at WHO's headquarters in Geneva, Switzerland to advise WHO in refining TB control strategies and policies. IMA with support from WHO and Stop TB Partnership launched 'Stop TB Asia Coalition' in 2015 which was followed by signing of a pledge by the Indian Health Minister, global TB leaders and representatives of international

organizations and partners[25]. IMA has lately joined hands with Confederation of Medical Associations of Asia and Oceania with secretariat in Tokyo under Japan Medical Association to be part of the global fight against TB[25].

5.4.4 Long term attainments of the IMA-RNTCP partnership

The lessons learnt from the long-term IMA-RNTCP partnership were also used in the development of strategic guidelines for formal engagement of private health sector providers[131]. IMA's act of endorsing and deliberations on ISTC contributed to visible improvement in awareness among private medical Practitioners about the public health aspects of TB control and their responsibilities towards TB control[25,117]. There has been improvement in the quality of prescriptions of private medical practitioners as increasing numbers of them have been prescribing fixed dose combination drug regimens of reputed pharmaceutical companies instead multiple drugs which had the risk of consumption of inadequate drugs or doses by patients[25,117,118]. IMA's interactions with RNTCP also resulted in RNTCP's amendments of policies to accommodate the interests of the private health sector. One of such adaptations of IMA is the decision to experiment an innovative concept of Public-Private Interface Agency (PPIA) that allowed opportunity for neutral non-government agencies to function as an interface between RNTCP and private health sector. This was a shift in the RNTCP's approaches by creating an environment that promotes flexibility for private health sector engagement and trust among partners in TB control[27]. The

flexibility offered in one of the initial PPIA projects implemented in Mumbai city to use a diagnostic algorithm other than that of RNTCP was welcomed by the private sector. PPIA project in Mumbai city uses X-Ray as the screening tool while Xpert MTB/RIF, an automated diagnostic test, is used for confirmation of TB disease and identifying rifampicin resistance[132]. The National Strategic Plan 2017-25 of RNTCP includes a new scheme to address TB care in private health sector which will have incentives for private health sector providers and patients to improve reporting TB cases to RNTCP[28]. IMA's recommendation to simplify the documentation processes of TB disease events was also considered in the RNTCP's strategy regarding digital tools for recording and reporting. Concern of patients about the lack confidentiality in a system of paper-based registers and reports have been raised by IMA which is addressed by electronic reporting[25,118]. RNTCP's decision to allow private practitioners to access its web-based case-based notification system led to significant increase in case notification from private health sector in the recent years[1]. IMA points out that this model appears to have reduced financial burden on patients due to the availability of RNTCP services to patients who access care from private health care facilities[25].

5.5 Discussion

India is continuing to be the country with the highest number of incident TB cases with a quarter of the share for incident TB cases and unnotified TB cases. The End TB Strategy of WHO has set a very

ambitious goal of ending TB by 2035. Ending global TB will depend greatly on the pace of TB control in India which will in turn depend on the level of engagement of private health sector in RNTCP. As has already been discussed, private health sector in India is a heterogenous entity which is controlled by complex dynamics and undercurrents which are only partly understood yet. By the inherent characteristics and the way of functioning of the for-profit-private health sector, its challenging for a national health programme with social positioning to engage the private health sector in a public health programme that is not overtly aligned to their business model. Therefore, engaging the private health care providers in TB control is not an easy and straightforward task. Therefore, RNTCP will have to resort to multiple mechanisms to engage the various types of players in the private health sector to ultimately reach all the TB patients cared by them. Particularly to reach the patients in the private health sector, RNTCP will need facilitators to interface with the private health sector. It is in this background that an overview of the engagement of IMA, examining the processes, documenting the lessons learned and identifying the challenges became important.

The results from the IMA–RNTCP partnership demonstrates the need for and the value addition due to such a partnership in the larger interest of public health. It's clear from the evidence that though isolated and local IMA-RNTCP collaborations were there, IMA's declaration of nationwide support to RNTCP in 2003 changed the situation within IMA drastically in favour of PPM. This change in the

approach largely reduced the opposition from the private health sector towards RNTCP. In addition, IMA-PPM projects have demonstrated improved participation of private medical practitioners in RNTCP and resultant increase in TB case notification notwithstanding the fact that the achievement in case notification in absolute numbers was marginal compared to the size of the TB problem. WHO-led Joint Monitoring Mission that reviewed RNTCP in 2015 recommended that major initiatives must be undertaken to sensitize and engage private medical practitioners by involving stakeholders like IMA and other professional associations[133].

The IMA-RNTCP partnership had evolved over more than two decades through regular interactions between the two organizations that arose out of the need of RNTCP to engage private health care providers. Even after establishing a national-level partnership, the collaboration faced challenges especially due to administrative delays that became bottlenecks specifically in fund transfers to the project. Absence of a formal agreement signed between RNTCP and IMA was a major gap in addition to the absence of a focal point at CTD for PPM affairs. Absence of adequate documentation of the evolution and history of the partnership reduced the opportunities for the expansion of the model within the country and replication elsewhere. The benefits RNTCP received through this partnership is also inadequately documented. Even the limited documentation of the IMA's role as an interface contributed to the idea of a neutral interface agency between RNTCP and the private health sector for

building innovative models like PPIA. RNTCP's decision to scale up PPIA projects will be an opportunity for further strengthening IMA-RNTCP collaborations.

Absence of comprehensive monitoring and evaluation strategy to measure the impact of IMA-PPM projects stands out as a major gap that would impact future fund mobilization for expanding and replication of the model. In the Global Fund project, there were delays and interruptions in the fund disbursement to IMA. This was mainly because the government was the principal recipient of the Global Fund grant and the transfer of funds to IMA, the subrecipient, was interrupted or delayed due to bureaucratic bottlenecks and slowness of the government systems[25,117,118].

IMA has also taken cognizance of the challenges and has defined solutions to take this partnership forward. IMA has been reviewing its political and geographical strengths and planning to optimize its reach within private doctors in India[25]. RNTCP and IMA has started exploring ways of extending this partnership in the scale up of newer initiatives like PPIA at national level[25,119]. IMA being the common organization of doctors that can greatly influence its members especially in the private health sector will have a continued and enhanced role in helping India move towards ending TB. RNTCP implementation being primarily led by the government, a strong public sector with adequate capacity and willingness to partner with private health sector is required to materialize meaningful partnerships between RNTCP and the private health sector.

5.6 Recommendations

Having examined the IMA-RNTCP partnership in its entire length starting from the pilot projects through the latest developments, the recommendations can be listed as follows.

1. There should be a platform, for example a workshop, to examine the status of IMA-RNTCP collaboration leading to identification of key issues and challenges in the IMA-RNTCP partnership. The challenges identified in the process of the partnership should give insights to IMA in developing solutions aligned with the market practices.
2. MA-RNTCP collaboration must be revamped and a formal signing of agreement between IMA and RNTCP must be done to ensure effective contribution from both the organizations. There should also be clear division of responsibilities between RNTCP and IMA.
3. A focal point should be identified at RNTCP who will have the responsibility of managing the partnership with IMA.
4. The key issues and challenges should be systematically documented.
5. Similar projects in future should have strong monitoring and evaluation systems so that respective partner's contribution can be easily measured.
6. The scope for IMA to engage more proactively in innovative mechanisms like PPIA should be explored.
7. There should be appropriate and practical approaches to address the fear of the private health sector about losing their

clientele by engaging in RNTCP-related activities.

8. Appropriate mechanisms and tools must be established to ensure that feedback about patients received by RNTCP from private health sector is sent to the participating private health care providers.
9. In future occasions of funding by international donors, IMA should play the role of principal recipient of the grant to address the unnecessary bureaucratic delays in receiving the funds from the government as principal recipient.

5.7 Conclusion

Though RNTCP's efforts to engage the private health sector was initially offset by the opposition from the private health care, IMA's engagement facilitated the process and contributed to success in the establishment of partnership with private medical practitioners, increasing case notification and maintaining higher rates of treatment success. IMA acted as an interface for creating partnerships between RNTCP and private health sector in many successful PPM projects. The lessons learnt from the IMA-RNTCP projects should inform the policy decisions on further strengthening IMA-RNTCP collaborations. As donor funding is dwindling, RNTCP should consider increased investments in the private health sector using IMA as an interface with the private health sector. Professional associations like IMA should be engaged more in a strategic manner and involved in all the stages of decision making process. There is scope for further improvement in IMA-RNTCP collaboration through

refinement of the existing models as well as experimenting newer and innovative models. Every effort to increase TB case notification and maintain treatment success in India is a crucial step towards global efforts to ending TB epidemic by 2035.