

# INVOLVING PRIVATE PRACTITIONERS

*in*

## TUBERCULOSIS CONTROL:



ISSUES, INTERVENTIONS,

*and*

EMERGING POLICY FRAMEWORK



**Involving Private Practitioners in  
Tuberculosis Control:  
Issues, Interventions, and  
Emerging Policy Framework**

**TB Strategy and Operations  
Stop TB Department  
Communicable Diseases Cluster**





<b>1</b>		<b>CONSENSUS GROUP</b>	5
<b>2</b>		<b>ACKNOWLEDGEMENTS</b>	7
<b>3</b>		<b>FOREWORD</b>	9
<b>4</b>		<b>PREFACE</b>	11
<b>5</b>		<b>LIST OF ABBREVIATIONS</b>	13
<b>6</b>		<b>EXECUTIVE SUMMARY</b>	15
<b>1</b>		<b>INTRODUCTION</b>	17
		Historical Background . . . . .	17
		NTPs and the Private Health Sector . . . . .	18
		A Global Assessment: Methods and Scope . . . . .	19
<b>2</b>		<b>FINDINGS OF THE GLOBAL SITUATIONAL ASSESSMENT</b>	21
		<b>The Role of the Private Health Sector</b> . . . . .	21
		<i>Size of the Private Health Sector</i> . . . . .	21
		<i>TB Caseload in the Private Health Sector</i> . . . . .	22
		<i>Private Sector Share of First Contacts</i> . . . . .	23
		<i>Delay in Diagnosis</i> . . . . .	23
		<i>Management Practices</i> . . . . .	24
		<b>Regional and Country Variations</b> . . . . .	25
		<b>Prevailing Perceptions</b> . . . . .	26
<b>3</b>		<b>THE CASE FOR ADDRESSING PRIVATE SECTOR INVOLVEMENT</b> . . . . .	29
<b>4</b>		<b>AN INVENTORY OF INTERVENTIONS</b>	31
		<b>Strategic Dimensions in TB Control</b> . . . . .	31
		<b>The Range of Strategic Options</b> . . . . .	32
		<b>Public System</b> . . . . .	36
		<b>Parallel systems</b> . . . . .	36
		<b>Public-Private Collaboration</b> . . . . .	38
		<i>Public-Private Mix Models in Service Delivery</i> . . . . .	39
		<b>Choosing the Appropriate Strategy</b> . . . . .	40
<b>5</b>		<b>EMERGING POLICY FRAMEWORK</b>	45
		<b>The Contours of a Policy Framework</b> . . . . .	45
		<b>The Role of WHO</b> . . . . .	46
		<b>The Role of Countries</b> . . . . .	46
<b>6</b>		<b>REFERENCES</b>	49



<b>APPENDIX 1:</b>	Countries and Sites visited during the Global Assessment	53
<b>APPENDIX 2:</b>	Findings from African Countries	54
<b>APPENDIX 3:</b>	Findings from Countries in the American Region	59
<b>APPENDIX 4:</b>	Findings from Countries in the Eastern Mediterranean Region	63
<b>APPENDIX 5:</b>	Findings from European Countries	67
<b>APPENDIX 6:</b>	Findings from South East Asian Countries	69
<b>APPENDIX 7:</b>	Findings from Countries in the Western Pacific Region	75



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This report is based largely on documented literature, field observations and discussions with our numerous colleagues in 23 countries across six WHO regions. These included all concerned national TB programme managers and their staff; health researchers, planners and policy makers; and importantly, private chest physicians and general practitioners. We gratefully acknowledge their precious input into this report. TB programme managers of Dominican Republic, Egypt and Indonesia arranged audiences with their Health Ministers. Special thanks are due to them.

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Finally, we thank Dr Donald Enarson who kindly agreed to write a foreword to the document.



A great deal of attention has been given in recent years to the role of the private sector in tuberculosis control. This monograph presents a brilliant account of current knowledge on this topic and suggests a policy framework for national tuberculosis programmes to consider. During the course of discussions on this topic, one has frequently encountered the question 'Does the private sector have a role to play in tuberculosis control?' Such a question is naive in the extreme and reflects a perspective distanced from the reality of the field.

Tuberculosis is an ubiquitous disease. Although it is particularly associated with poverty, no one is totally immune from the risk of tuberculosis. Even those who have been successfully cured of the disease have been shown to have the possibility of becoming infected again and subsequently ill with a recurrent episode. Some of the most prominent members of the most affluent societies have been affected (Eleanor Roosevelt died of military tuberculosis). Consequently, tuberculosis is encountered at any and all levels of every health service in the world<sup>1</sup>. This includes every location from the highly specialized tuberculosis clinic right to the ophthalmology and urology units. Obviously, the greatest numbers of patients will access service first at the most peripheral level of the health service.

The recognition, investigation and diagnosis of such tuberculosis cases is always the task and responsibility of the health services personnel at the level of the health service to which the patient is likely to come for initial consultation. In many locations, this is the private sector. Any tuberculosis control service that does not recognize and value this fact and provide the supportive activities for this role is doing the tuberculosis patients a disservice and delaying their diagnosis and consequently enhancing the possibility of transmission of their infection. A wise tuberculosis control service explicitly recognizes this essential collaboration with the primary care services (be they public, private or 'traditional').

How is this best accomplished? Here is where the intelligent question is raised in collaboration with the private sector. One frequently encounters a critical spirit in discussions concerning this collaboration. This is particularly the case where a high proportion of tuberculosis cases is being given care in the private sector. When one explores the reality behind this situation, one frequently finds that few patients come and few practitioners refer them for care in the tuberculosis control services because these services are of inferior quality. In such situations, the blame justifiably rests with the tuberculosis control services. No one should expect that patients will come voluntarily or be referred to such inferior services and the priority is to improve the services to make them beneficial to the patients and to the community before embarking on criticism of other partners (including the private sector).

Finally, what specific tasks should be undertaken by the various partners in tuberculosis control? This is a question that has many answers and the answers depend on the local situation. However, certain principles underpin policy in this area. The key requirement for successful tuberculosis control includes a comprehensive view of the situation (the 'cohort' approach) that takes responsibility for all the existing cases in a community. This is the 'public health' perspective and is sometimes in contrast with the 'clinical' perspective where the highest quality care of the individual is the most highly cherished objective. To operationalize this cohort approach, it is essential that every patient be identified,

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<sup>1</sup>Enarson DA, Rieder HL, Arnadottir T, Trebucq A. Management of Tuberculosis. A Guide for Low Income Countries, 5<sup>th</sup> edition. St-Just-La-Pendue: Compogravure Impression, Brochage Imprimerie. 2000, 91 pp. ISBN 2-914365-00-4



diagnosed and successfully treated. To ensure that this is accomplished usually requires that care of the patients be standardized and free-of-charge. In addition, it absolutely requires that information be systematically collected and evaluated on each case identified. If these requirements can be met, it matters little who provides the services, so long as they are of a good quality and the outcome of the services is the best possible for all the patients in the community.

Successful tuberculosis control is always a partnership and not just between private and public health professionals. It necessitates a high quality of medical and public health practice, good politics, social and economic engagement and community involvement. Certain basic (and apparently essential) principles underpin the policies that have shown success in tuberculosis control using the current methods. Their application, nevertheless, must be flexible, collaborative and compassionate.

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Among the issues facing global tuberculosis control today, the one of great importance — involvement of private practitioners in DOTS implementation — has received far less attention than it deserves. Although the problem has long been recognised, little is yet known about effective ways to solve it. To begin addressing this issue, the communicable diseases cluster undertook a global assessment in 1999-2000. This involved discussions with key players in the public and private sectors in diverse country settings as well as appraisals of ongoing initiatives in collaboration with private practitioners. On a closer analysis of a wide variety of mostly undocumented country-experiences and field projects, a framework to aid policy development emerged. This document presents the findings as well as the framework to address involvement of private practitioners in tuberculosis control globally.

The findings of the assessment and the emerging framework were discussed and debated by a group of experts in a meeting in Geneva in August 2000. The participants included private practitioners, TB programme managers, policy makers and researchers working on the issue of what is called public-private mix (PPM) for TB control. The group shared field experiences, considered the findings of the assessment, and reached a consensus on recommendations to be made to World Health Organization and National Tuberculosis Programmes on involvement of private practitioners in their efforts to control TB. These recommendations are incorporated into the document.

This document is being published with a clear purpose. It is to share available knowledge and experiences on the subject with policy makers and national and local TB programme managers and make recommendations of experts available to them. We hope that on the basis of these, locally appropriate ways of involving private practitioners in DOTS implementation will be tried out and documented. This will help create an evidence-base for achieving an effective PPM for TB control. Such an evidence-base will also help delineate more concrete guidelines that may be published subsequently.

## LIST OF ABBREVIATIONS



AFRO	African Regional Office
AMRO	Regional Office for the Americas
ARI	Acute Respiratory Infection
BRAC	Bangladesh Rural Advancement Committee
CME	Continuing Medical Education
DOT	Directly Observed Therapy
DOTS	Directly Observed Treatment, Short-course
EMRO	Eastern Mediterranean Regional Office
EURO	European Regional Office
GP	General Physician
HCMC	Ho Chi Minh City
HIV	Human Immunodeficiency Virus
KAPTLD	Kenya Association for Prevention of Tuberculosis and Lung Disease
KNCV	Royal Netherlands Tuberculosis Association
MDR-TB	Multi-Drug Resistant Tuberculosis
MoU	Memorandum of Understanding
NGO	Non-Governmental Organizations
NTP	National Tuberculosis Programme
PP	Private Practitioner
PPM	Public-Private Mix
RNTCP	Revised National Tuberculosis Control Programme
SEARO	South East Asian Regional Office
STI	Sexually Transmitted Infection
USD	United States Dollars
WHO	World Health Organization
WPRO	Western Pacific Regional Office



Communicable diseases dominate the disease burden in poor countries. Many of these countries have large and growing private health sectors. Available evidence suggests that all segments of the population seek care from private health care providers who play a major role in care for infectious diseases. However, existing control efforts rarely reflect the reality of widespread private provision. Most disease control programmes are designed to deliver exclusively through government channels. There have been growing calls for approaches to service delivery that take into account the public-private mix (PPM) in different contexts. But there are few working examples of public-private collaboration for care delivery in communicable disease control. In some countries, private practitioners (PP) have contributed significantly to childhood vaccination programmes.

Among infectious diseases, tuberculosis (TB) is the single largest killer of young people and adults in the world. In recent years, many National Tuberculosis Programmes (NTPs) have adopted the DOTS (Directly Observed Treatment, Short-course) strategy. DOTS programmes have performed relatively well with an average treatment success rate of 78% among new infectious cases enrolled in 1997. While case detection has been increasing steadily, in 1998 DOTS and non-DOTS programmes taken together notified only 40% of new infectious cases. Anecdotal evidence and the few surveys done to-date indicate that a substantial proportion of the remaining cases is seeking care in the private health sector. Many of the notified cases have come to NTPs after seeking care from one or more private providers.

Seeking a better understanding of the extent and nature of private involvement in TB care, the World Health Organization initiated a global situation assessment in 1999. Twenty-three countries in the 6 WHO regions were visited as part of the assessment, including 10 of the 22 high-burden countries identified as priorities for global TB control. The assessment focused on private for-profit practitioners. Particular attention was also given to ongoing and proposed PPM approaches in TB care.

The assessment confirmed earlier findings of both a substantial TB caseload and unsatisfactory management practices in the private health sector. The consequences include high morbidity and mortality, a heavy socio-economic burden and the serious risk of drug resistance. If private providers continue as alternative sources of poor quality TB care, DOTS programmes face the prospects of low case finding and a dilution of the epidemiological impact of strengthened TB control efforts in the public sector. But the private health sector can also be viewed as a valuable resource, close to and often trusted by communities. There are opportunities to increase and speed up case finding, improve treatment outcomes through enhanced patient acceptance, share the service delivery load on frontline health staff and build a degree of long term sustainability in the TB control efforts. Options available to NTPs range from an exclusively public delivery system through parallel and independent public and private systems to a coordinated public-private mix. In practice, most NTPs have ignored the private health sector and opted to deliver services through government channels. The wisdom of such an approach is questionable, particularly in many high-burden countries with large private health sectors. In these countries, there is a compelling case for collaboration with private practitioners in the delivery of TB care.

The assessment found several promising initiatives either proposed or already under way that are attempting to build locally specific public-private mix models of service delivery. Local NTP staff and concerned private individuals have initiated many of these efforts at



collaboration. In general, while the assessment found structural and attitudinal barriers to collaboration, there was also evidence of pragmatism and a willingness to collaborate on both sides in most settings.

Innovative forms of partnerships with private practitioners can assist NTPs in meeting the goals for the year 2005 set out in the Amsterdam Declaration. Currently, most NTPs lack a coherent strategy towards the private health sector. Existing policy frameworks will have to be revised and expanded to incorporate policies on private involvement in TB care. More information and debate is needed to develop and finalise WHO's guidelines to NTPs on this issue. However, to strengthen and expand ongoing DOTS implementation, the assessment already suggests some of the elements that would form the basis for these guidelines:

- Action-oriented communication with and information gathering on the private health sector at all levels should be encouraged.
- Collaboration with the private health sector is recommended. Local NTP staff should enjoy a degree of autonomy in capitalising on opportunities to improve care in partnership with private agencies.
- Collaboration should be pursued within the existing DOTS framework; one or more elements of NTP guidelines could be adapted to the local context.
- Existing public-private mix projects should be evaluated and scaled up. New models of public-private partnership should be tried out in diverse settings
- Public funding should be available for provision of TB care by private providers
- Medical curricula should be appropriately modified to influence young medical graduates.
- TB care could be a starting point for a wider involvement of private providers in control of major communicable diseases.

WHO, in collaboration with international and national partner agencies, is well placed to coordinate and stimulate research on suitable public-private mix models. It has already begun to link ongoing initiatives under a common framework; the objective is to support a research project that systematically pilots existing and new public-private mix models of TB care. Additional sites and researchers are being identified. Continued funding and technical support are crucial. The pilots should yield robust models with the potential to improve TB care to the large number of cases who approach private practitioners. The pilots and the resulting models can also pave the way for broader collaboration with the private health sector in communicable disease control.



Communicable diseases continue to dominate the disease burden in resource poor countries today. In most of these countries health care provision by the private health sector to all segments of population is rapidly growing. And yet, there is little collaboration between the public and the private sectors in delivery of care for control of communicable diseases. Although much has been written and discussed about Public-Private Mix (PPM) in health care, documented examples of successful collaboration on the ground are few and far between. This applies particularly to communicable diseases including malaria, tuberculosis (TB), diarrhoea, acute respiratory infections (ARIs), sexually transmitted infections (STIs) and others. Attempts to forge partnerships between public and private sectors in health care provision for any of the above health problems, if successful, could have valuable lessons for other disease control programmes. Such attempts could pave the way for public-private collaboration for communicable disease control in general.

TB is the largest single infectious cause of death among young people and adults in the world, accounting for nearly two million deaths a year. About a third of the world's population harbours the infection; this large pool of infected people means that TB will continue to be a major problem in the foreseeable future [1]. While they belong to all socio-economic strata, the vast majority of TB patients are poor [2]. Available evidence suggests that private providers play a major role in TB care. This report analyses the potential for public-private collaboration in TB control efforts and recommends a strategy for action.

### *Historical Background*

Organised efforts to control TB led to the design and launch of National Tuberculosis Programmes (NTPs) in high burden countries over half a century ago. The focus was on the use of government machinery to implement public health initiatives. The private health sector was usually excluded from such initiatives. It was perceived that, for health problems of major public health significance, curative medical care centred on individuals formed only a small part of the overall disease control measures. Further, the government was considered better placed to offer all promotive, preventive and curative components of health care. Finally, the private health sector did not yet have a significant presence in most of the countries with a high TB burden [3].

Barring a few exceptions, the performance of the NTPs was not satisfactory. By the mid-1980s, outbreaks of TB in countries and places supposedly rid of the disease helped focus renewed attention on the global burden of TB. The TB epidemic was declared a global emergency by the World Health Organisation in 1993 [4]. In recent years, there has been an increasing acceptance of the WHO recommended Directly Observed Treatment, Short-course (DOTS) strategy. By the end of 1998, 119 countries had adopted DOTS as their strategy for TB control, including all of the 22 high-burden countries. Forty three per cent of the global population lived in areas where they could access DOTS services. However, the number of new smear-positive TB cases detected by DOTS programmes was about 21% of the estimated global incidence. Even among the populations with access to DOTS, many TB patients continue to seek alternative sources of care. The average treatment success rate among infectious patients treated by DOTS programmes was 78% in 1997 [5]. The DOTS strategy emphasises case finding among symptomatic individuals self-referring to health services, with a focus on detection of the most infectious cases through sputum



smear microscopy. Standardised short-course regimens are used for treatment with direct observation of drug intake in the initial phase. Other key elements of DOTS include regular drug supply, and a standardised recording and reporting system. Political commitment underpins the strategy [6].

### ***NTPs and the Private Health Sector***

There is now enough evidence to suggest that in most countries the private health sector play a major role in TB care [3]. WHO's report on Global Tuberculosis Control for the year 2000 noted that, although case finding by DOTS programmes was increasing, the increase was small. Also, in part it was due to transferring cases to DOTS programmes that would have been notified anyway. The report went on to add that to reach the global target of 70% case detection, most countries would have to find innovative methods to find and treat case not notified [5]. The design and implementation of DOTS programmes do not take into consideration the existing reality of a large pool of cases outside the public sector. Thus most NTPs appear to have no explicit strategy to address private health sector involvement; the implicit strategy is one of 'denial or tolerance' of the private sector.

One major reason for the continued neglect of the private sector is that there persists formidable ideological opposition to leaving TB care to market forces. There are other major reasons that could explain why the private sector has been ignored by NTPs. The information on the extent and the role of the private sector in TB care tends to be very sparse. Sensible interventions involving the private sector cannot be designed in the absence of such information. Furthermore, there are perceived to be significant structural barriers to the inclusion of the private sector in public health interventions. The private health sector in developing countries tends to be a relatively amorphous, unorganised and dynamic entity comprising various provider types of different sizes and characteristics [7]. In contrast, government health services are structured – well suited to the specialised nature of the typical DOTS programme. Yet another factor is the socio-economic profile of the typical TB patient. TB patients belong to the poorer sections of society; it is assumed that they are more likely to use relatively inexpensive government services. The relative poverty of the target group is a strong argument for government funding, not necessarily for government provision of care. However, it has been pointed out that in poor countries with weak institutional bases, public provision of essential health care might still be the best available option [8]. Alternatives such as support and incentives to PPs or subsidies to insurance schemes require substantial administrative capacity and there are few precedents in poor countries. Finally, the implementation of DOTS has usually meant a radical overhaul of the existing NTPs. It has been argued that the NTP managers should invest their limited time and energy in building up a strong DOTS programme within the public sector. In some countries, NTP managers might be implicitly seeking to elbow out the private sector from the TB care market by running a superior TB control program.

DOTS programmes in many countries are now coming face to face with the reality of large private health sectors. In general, the private health sector has grown considerably in the last few decades. It plays a major role in ambulatory care, particularly in urban areas. Asian countries account for over half of the global burden of tuberculosis. Most of these countries e.g. India, Indonesia, Bangladesh, Pakistan, the Philippines, Thailand etc. also have large and growing private health sectors. The few available studies of the health-seeking



behaviour of TB symptomatic individuals and patients have shown that many first approach the private health sector [9,10,11,12]. By remaining aloof from the private health sector, NTPs could be hampered in their case detection efforts. Poor management practices in the private health sector such as improper diagnosis and treatment, and absence of follow-up could dilute the epidemiological impact of DOTS programmes. Such practices could also contribute to a growing incidence of hard-to-treat multi-drug resistant TB. Besides, the health policy environment within which DOTS programmes operate is gradually shifting. While there remains broad acceptance of the need for government funding of major public health activities and government leadership in regulation, there are calls for better use of private providers who are currently supplying services of public health importance [13]. The evidence of market failure in delivery is not as compelling as that in the financing of health interventions with large externalities. Partnership with the private sector could offer some promise of higher case finding rates, improved patient acceptance of DOTS and a degree of long term sustainability.

### ***A Global Assessment: Methods and Scope***

In light of the potential threats and opportunities posed by the private health sector to TB control, WHO plans to stimulate action research to investigate various options available to NTPs. The objective is to prepare operational guidelines that will assist NTPs in formulating suitable policies to address private sector involvement in TB care. The research should yield valuable lessons for broadening public-private collaboration in infectious disease control in general. The global assessment is the first step in that direction.

The knowledge about the current and potential role of private practitioners (PPs) in TB control is uneven with most of the information coming from a few descriptive and intervention studies including initial work started by WHO in India [14,15,16]. To increase the knowledge base, WHO undertook a global situational assessment in 1999-2000. Selected countries in all of the six WHO regions were visited as part of the assessment effort. The selection criteria included the size of the TB burden, the perceived degree of involvement of the private sector in TB care, available information on ongoing efforts to evolve a suitable public-private mix, and the availability of interested researchers willing to collaborate in future research efforts. Among the countries visited were 10 of the 22 that have been identified as high-burden countries by WHO in its Global Tuberculosis Control report of 2000 [5]. A list of countries and sites visited is available in Appendix 1. The assessment is based largely upon documented literature and in-depth on-site discussions with NTP managers, private physicians and researchers at national public and private institutions engaged in tuberculosis and health services research. In all, 144 discussions were held in 23 countries including 48 with NTP managers and their associates, 51 with private physicians, 30 with researchers in public health and 15 with WHO staff based at regional and country offices. Moreover, at 7 sites, group discussions were arranged jointly with NTP staff and private practitioners. Of these, 2 discussions included members of the local chest physicians' associations.

The private health sector involved in TB care includes private practitioners, non-qualified providers including traditional healers, practitioners qualified in non-allopathic forms of medicine, private pharmacists, non-governmental organizations (NGOs) and pharmaceutical companies. The assessment focused on qualified private for-profit practitioners, in solo or group practices. In the rest of this report, the term 'PPs' will refer to



this group. Where appropriate the role of other types of private providers will be considered. In some countries, physicians work in the public sector but also have private practices in the afternoon and the evenings. Such physicians will also be considered PPs when they are managing patients in their private practice.

Due to logistical and time convenience, the assessment focused on urban areas. Also, the PPs tend to congregate in urban areas. Many of the high-burden countries have a large number of TB patients among the urban poor. These countries are also urbanising rapidly. Since TB patients as well as practitioners in rural areas share many common characteristics with their urban counterparts, the findings of the assessment and the strategy proposed will have relevance for a large number of TB patients. The assessment has also focused on the delivery of TB care. Issues of regulation and medical education are examined to the extent that they impact on the private sector role in delivery. The appropriate public-private mix in financing of TB care is outside the scope of this report and will be touched upon only briefly. Finally a special effort was made to identify and assess ongoing efforts to address the role of the private health sector in TB care.

Section II of this report is a summary of the findings of the situational assessment. We describe the major characteristics of the private health sector role in TB care and highlight some of the country-based efforts to address the issue. Based on the findings, we argue the case for addressing private sector involvement in TB care in Section III. Next, in Section IV we present a framework for addressing TB care in the private sector. The spectrum of strategic options available to the NTPs is highlighted. The options range from provision of TB care exclusively through the public sector on the one hand to active inclusion of the private health sector on the other. The options are considered in some detail and working examples are cited where available. We identify key factors that NTPs should consider when choosing an appropriate strategy. On the basis of available evidence and trends, we argue that inclusion of the private health sector in the delivery of TB care is one of the most promising options for NTPs in many of the high-burden TB countries. We conclude in Section V with the outline of an emerging framework to guide NTP policies towards the private health sector. We comment upon the respective roles of WHO and NTPs in developing and finalising the policy framework. In particular, we emphasise an agenda for operational research that spurs the development and piloting of robust public-private mix delivery models well suited to local conditions. The pilots and the resulting models will provide useful lessons in public-private collaboration not just for TB control but also for infectious disease control in general.



### The Role of the Private Health Sector

#### Size of the Private Health Sector

The private health sector varies considerably between and within countries in its size, composition, level of Organization, types of services delivered and socio-economic groups served. There are few statistics on the private sector share of service delivery in poor countries. However, there is some information on health expenditures that suggests a large and growing private health sector in most poor countries. shows that private expenditure on health accounts for a major portion of total expenditure in almost all of the high burden countries. Further, virtually all of this private expenditure is out-of-pocket, suggesting considerable utilisation of PPs and private pharmacies on a fee-for-service basis [17].

**TABLE 1** Private Health Expenditures in the 22 high-burden countries

Country	Pvt. health expenditure (% of total health expenditure)	Out-of-pocket expenditure (% of total health expenditure)
India	87	84.6
China	75.1	75.1
Indonesia	63.2	47.4
Bangladesh	54	54
Pakistan	77.1	77.1
Nigeria	71.8	71.8
Philippines (the)	51.5	49.5
South Africa	53.5	46.3
Ethiopia	63.8	63.8
Vietnam	80	80
Russia	23.2	23.2
DR Congo (the)	63.4	63.4
Brazil	51.3	45.6
Tanzania	39.3	38.3
Kenya	35.9	35.9
Thailand	67	65.4
Myanmar	87.4	87.4
Afghanistan	59.4	59.4
Uganda	64.9	48.2
Peru	60.3	50.2
Zimbabwe	56.6	38.2
Cambodia	90.6	90.6

(Source: Reference 17)

In general, available surveys on health care utilisation indicate that the private sector is an important source of care, even where public services are available. Private providers are extensively used for diseases of public health importance such as TB, malaria, STIs, diarrhoeal disease, ARIs. [14,18,19]. For instance, in India, 80% of the households prefer the private sector for minor illnesses and 75% for major ones [9]. In urban areas in



Indonesia, 39% of sick individuals were found to be consulting private providers as compared to 30% who consult public providers [20]. PPs tend to congregate in urban areas; many rural patients still seek care in the 'informal sector' including traditional healers.

Poor people use the private health sector almost as much as better-off people. In nine of the poorest countries, an average of the 47% of visits to health providers by the poorest 20% of the people were to the private sector as compared with 59% of visits to private providers among the richest 20% [21]. A 1987 survey in Jalgaon District, India, found that only 13% of the poorest 20% of the households utilised government facilities for care; the rest used PPs or self-medicated [22]. Studies in Ho Chi Minh City (HCMC) in Vietnam have found that the socio-economic profile of individuals with TB symptoms and TB patients who approach PPs is similar to that of patients who approach the NTP [23, 24].

### *TB Caseload in the Private Health Sector*

Very little precise information is available on the size of TB caseload managed in the private sector. Reliable information on TB caseload in the private sector could be found in South Korea, The Netherlands and the Czech Republic, only 3 out of the 23 countries visited in the 6 WHO regions. Notification of TB cases from private sector is rare among most low and middle income countries. Even today, in spite of strengthened NTPs and improved information systems, about 60% of all estimated smear positives and 55% of all forms of TB are not notified globally [5]. India, for instance, has the highest burden of TB and the largest private sector that manages as many as half the prevalent cases without notifying them. This accounts for almost a sixth of the world's burden of TB. A prospective study conducted in urban poor and rural Indian settings showed only a third of TB patients crossing from private sector over to the public health services [25]. Nevertheless, it is generally assumed that a large proportion of TB cases end up with the NTP. An unknown but seemingly substantial proportion of TB cases in high burden countries such as Pakistan, Bangladesh, Indonesia and the Philippines are also managed in the private sector. Well-managed TB programmes do not necessarily attract all the TB patients. In South Korea, in spite of a good programme offering free services, 47% of TB cases are diagnosed and treated by PPs — GPs and specialists [12].

In most countries, the programme managers assume that only a small proportion of patients – mainly the well off – seeks care from the PPs. The basis for this assumption is that TB primarily affects the poor who cannot afford to spend large sums of money for paying doctors' fees and buying expensive drugs. Most of them supposedly use free services made available by the NTPs. This is thought to be particularly relevant where the costs of care in the private sector are very high while the public sector provides free services, for instance in most of the Latin American countries. Yet a recent survey in Mexican State showed that about a third of patients who died of TB were treated in the private sector. A substantial proportion of all anti-TB drugs is sold in the private sector [26].

WHO's year 2000 report on global TB control has noted that while the case finding by DOTS programmes is increasing, the increase is small [5]. To reach global targets, many countries will have to introduce innovative ways to find and treat cases not yet notified. Knowledge of the actual case load and types of patients treated in the private sector is essential not just for surveillance and monitoring but also to emphasise the need to engage with the private health sector.



## *Private Sector Share of First Contacts*

The few available studies suggest that in many low-income TB endemic countries with large private health sectors, private physicians, traditional healers and private pharmacists play a significant role in the initial stages of health seeking by TB symptomatic individuals. This is in keeping with the private sector presence in ambulatory care and the fact that the initial symptoms of TB are virtually indistinguishable from those of other chest symptomatic individuals. Further, cost is not a big concern for most patients in these early stages. In one study, in the Indian City of Pune, of households reporting chest symptomatic individuals, over 60% of the symptomatic individuals first went to a private health provider [10]. A subsequent study in Pune and Mumbai showed that 88% of the rural and 85% of the urban patients of PPs had started off with a private provider [25]. In Indonesia, where PPs have a major share of ambulatory care in urban areas, it has been estimated that over half the urban TB cases are being detected in the private sector [20]. In HCMC, Vietnam, a survey of patients diagnosed with TB in the NTP found that about half had first turned to PPs or private pharmacists [23]. A 1996 study in Blantyre in Malawi showed that more than one-third of the all sputum smear positive patients had visited a traditional healer before seeking regular medical care [27]. In Pakistan, a survey in 1996 showed that about 80% of the TB patients first seek care from PPs [28]. In the Philippines, a survey found that about 39% of the TB symptomatic individuals were self-medicating while 26% had consulted a private practitioner [11]. While this report focuses on PPs, the role of private pharmacists is noteworthy. A study of drug stores in a district of Manila found that 66% of the prescription drugs were sold without prescriptions. The most commonly perceived indications were respiratory tract infections (20%) and TB (8%) [29]. In India, a study found that nearly two-thirds of patients buying medicines over the counter did so without a prescription [30]. In HCMC, about 25% of all drugs dispensed at private pharmacies were dispensed without prescription [31]. In Nepal, pharmacists have been found to be the first source of treatment for a large number of TB patients. They could potentially assist in reducing diagnostic delay and increasing case finding by referring symptomatic individuals [32]. They could also serve as treatment supervisors.

The large share of first contacts has important implications for TB control since PPs follow poor diagnostic practices leading to long delays in diagnosis as discussed below.

## *Delay in Diagnosis*

Most of the disease transmission in TB takes place before the diagnosis of TB is made and treatment started. Delay in TB diagnosis therefore leads to an increase in disease transmission. Several studies have sought to establish whether the delay in diagnosis is due to a delay in seeking care or due to the inability of the provider to diagnose promptly. Commonly, the delay is in receiving a diagnosis rather than in seeking care. Even in countries where TB treatment is offered exclusively by the public sector, patients tend to be under private care for a considerable length of time before TB is suspected and patients referred to the TB service. In Sao Paulo city, where TB care largely takes place in the public sector, an analysis of the place of first diagnosis and the extent of delay in diagnosis showed that in about 20% cases the diagnosis was first made in the private sector. The mean delay in diagnosis was 12.5 weeks [VMN Galesi, personal communication]. In a Kenyan study, 90% of TB suspects claimed that they had attended a health care facility (private and/or public) for an average of 5 times, yet 65% had neither a chest radiograph taken nor their sputum examined [33].



A study of TB patients and practitioners in private clinics in India showed median delays in diagnosis of about 3 weeks and 2 weeks respectively among urban and rural patients after they sought help at private clinics. About 33% of the urban patients and 36% of the rural patients had not been diagnosed even after 4 weeks of seeking help [16]. Another study in Vietnam showed that patients who had first turned to a private pharmacy or a private physician were significantly more likely to have a long provider delay compared to people who had first turned to the NTP [34]. The potential positive impact of private sector involvement is clearly demonstrated in a unique public-private mix project operated by a private hospital in Hyderabad City in South India. The mean delay in diagnosis after seeking help among patients reporting to the public sector DOTS programme was half as much again as that among patients of that project (7 weeks and 5 weeks respectively). In the same place, the comparison also showed that before the start of TB treatment, patients in the public sector DOTS programme had spent two and a half times more than their counterparts on the private side (USD 38 vs. USD 15). [KJR Murthy, Personal Communication]

It is important that the providers of TB care be made cognisant of the epidemiological and economic implications of shopping for treatment and delay in diagnosis. If convinced about the extent of spread of the disease as a result of delayed detection, PPs might get motivated to contribute to reducing the delay of diagnosis.

### *Management Practices*

Very few studies in the past have examined the prescribing behaviour of PPs in treating TB. Recently, however, their TB management practices have come under scrutiny world wide, in countries and settings as diverse as urban and rural India [10,16, 32], Pakistan [26], Philippines [36], Korea [37], Uganda [38], United Kingdom [39], Switzerland [40], Bolivia [41] and United States [42,43]. It is common among PPs, as these studies indicate, to deviate from standard TB management practices, recommended nationally and internationally. Of greater relevance from the global TB control point of view are the practices of physicians in high burden countries. Although the settings vary greatly, interestingly, the findings do not. PPs in these countries place an undue emphasis on chest radiography for diagnosis. They rarely use initial and follow-up sputum examinations. They tend to prescribe inappropriate drug regimens, often with incorrect combinations, and inaccurate dosages for the wrong duration. There is little attention to maintaining records. Case notification is uncommon and treatment outcomes are not evaluated.

Why do PPs deviate from recommended practice? The basic medical education in most poor countries is of uneven quality and there is inadequate attention to public health education. Continuing education is usually missing. Regulations are often non-existent or archaic, and where they do exist, they are rarely conveyed to professionals or enforced. To top it all, there is a major communication void between TB programmes and PPs. The most damaging negative influence pointed out by some senior PPs was the sorry state in which TB programmes were run for a long time. They listed factors such as sputa showing negative results until “you virtually start seeing the bacilli with naked eye”, drug regimens “devised every day and modified mid-way combining drugs available in the cupboards”, and “no regard either to humans or their lives”.



The absence of recording and reporting, and absentee retrieval mechanisms suggests that overall case holding is weak. This is confirmed by the few available surveys. In South Korea, a large study of over 1000 patients found that 42% of the patients of PPs interrupted their treatment prematurely [37]. In Mumbai, India, only 2% of the PPs surveyed claimed treatment completion rates of over 50% [10]. In HCMC, a semi-private specialist lung clinic had an overall treatment success rate of about 50%. The cure rate among new smear positive cases was about 22% [24].

## Regional and Country Variations

As with TB prevalence, there are great variations among the six WHO regions with regard to the private health sector, its characteristics, and its role in TB control. There are variations among and indeed within countries as well. Some broad observations may, however, be made. The private health sector does exist in all the regions, but the extent to which PPs play a role in providing TB care and the proportion of TB patients managed by them is unclear in the low as well as middle income countries of the African and American regions. Their contribution – positive or negative – is perceived to be insignificant. The same, to some extent, may be true for low and middle-income countries of the European region. The private health sector is said to be growing rapidly in Eastern Europe and countries belonging to the former Soviet Union, but TB care provision is still restricted mostly to the public sector.

The regions with the highest burden of TB – South-east Asia (SEARO) and Western Pacific (WPRO) – also have large private health sector with a significant role in provision of TB care. The scope of the private sector in these regions and its current and potential contribution to TB control is well appreciated. Some attempts are being made and experiments are under way to identify ways of involving PPs in TB control in these regions but organised efforts aimed at developing and implementing policies for meaningful involvement of private sector are not yet in place. The Eastern Mediterranean region has only a few countries with a high burden of TB. PPs have been on the agenda of many countries in this region, thanks to the initiative in 1996 by the Eastern Mediterranean Regional Office (EMRO). Some of these countries have made enough progress to enable them to put in place national policies on private sector involvement.

There are great variations in the characteristics of PPs in different regions, countries, and within countries as well. There are PPs who are not linked in any way to the public sector. There are those who have private practices but devote a part of their time for a public sector service – paid or honorary. Then there are those who work mainly for the public sector but have private practices too – official or unofficial, and those who are exclusively in the public sector service. In the SEARO and the WPRO regions, the first level private health care providers (i.e. GPs) often manage TB as well while in some other regions chest physicians manage most pulmonary TB patients. Approaches to private provider involvement are likely to vary according to target intervention groups.



### A Regional Initiative on the Involvement of the Private Sector in TB Control

In April 1996, EMRO organised a consultation of member states in Beirut, Lebanon, on the issue of the private health sector and TB control. The consultation first reviewed the reasons for poor TB case management practices in the private health sector and then discussed the likely consequences of such practices including MDR-TB. The options available to the NTPs were identified. Participants made presentations on the status of public-private collaboration in their respective countries. The presentations were structured around two key themes – the existence of NTP guidelines that could be adopted for private sector use and the TB treatment practices in the private sector. Subsequently, the participants discussed a common protocol to guide collaboration with the private sector. Each of the five participating countries used the common protocol to develop their own research protocols for implementation. EMRO's initiative served at least two useful purposes. It focused attention at the regional level on an important but neglected issue. It also helped stimulate various research activities in the member states, all within a common framework. In Syria, the research findings helped shape the decision to restrict anti-TB drugs to the public sector.

### Involving PPs: Prevailing Perceptions

In most poor countries, there is very little interaction between the public and the private health sectors. Given this communication void, it is important to understand how either side views the other particularly in terms of potential collaboration. For collaborative arrangements to have a realistic chance to succeed, the gap in perceptions has to be recognised and bridged.

The assessment found that NTP staff viewed collaboration with PPs with a mix of pragmatism and scepticism. Among the commonly expressed views, was the candid confession, *'Any public-private mix (PPM) intervention will work, it can't be worse than now'*. Others were generous in judging the private health sector, for instance, *'Respect their 'clinical' approach to TB; they cannot be different just to their TB patients'*. And, *'Appreciate positive performance in the private sector'*. Many were realistic in their expectations, *'Keep expectations of the private sector reasonable; it has taken decades for TB programmes in poor countries to achieve desirable outcomes'*. Further, *'Keep the time frame for designing and implementing PPM interventions 'adequate'; we ought to be patient'*. The need for collaboration was acknowledged, *'Accept leaders of the profession as part of the decision making apparatus'*, *'Reach out to them, do not expect them to approach, it is not their job'*. Also, *'Be willing to provide adequate support to the private sector to carry out 'public health' functions of TB care'*, *'Encourage local action: provide freedom to field staff to interact and engage with PPs'*.

But there was also evidence of the implicit assumption that the public sector DOTS programme will eventually elbow out the private sector, *'If we improve our services, patients will automatically come to us'*. And some doubts, *'It is ambitious to discipline them (PPs) without any working controls'*, *'They are money-minded and unwilling to change'*, *'We never sensed any genuine desire at the higher levels to work with private doctors for TB control. Is not the current interest likely to be short-lived?'*



In general, the PPs met during the assessment welcomed the idea of collaboration although they voiced a few complaints against the NTPs. The complaints included, 'We have never received any communication from them', 'Generally they (public sector staff) have disrespect for us and present themselves in a highhanded manner'. There was some defensiveness; 'We cannot go around chasing every patient.' 'It is a misconception that we dictate to our patients; the patients dictate our course of action.' 'Sputum positives and sputum negatives are equal for us. It is TB in any case.' But the dominant view was that collaboration was feasible, 'There is no discernible reason why we should oppose collaborating with the TB programme', 'We propose joint care of each TB patient who comes to us.' 'Finally, you all seem serious about involving private doctors. That's a good sign.' And, 'We are not only happy but proud of working with the NTP.'

**TABLE 2** Major Barriers to Public-Private Collaboration in TB Care

<i>Within the NTP</i>	<i>Within the Private Health Sector</i>
Ideological opposition	Inadequate training & lack of information
Lack of information on the private sector	Technical doubts about NTP guidelines
Preoccupation with strengthening and expansion of the NTP	Low priority to public health functions; not remunerative
Prejudices about the profit motive & the behaviour of PPs	Competition for patients, particularly among chest specialists
Limited resources for co-ordination & supervision	Infra-structural limitations to performance of 'public health' tasks such as defaulter tracing
Weak & anachronistic regulatory mechanisms	Doubts about quality of care within NTP
Absence of precedents; little evidence on replicability	Largely unorganised; liaison and interaction challenging

About user charges, 'If the program provides free diagnostics and drugs for our patients, most of whom are poor, why should we charge them?' 'Treating a patient free of charge is a good investment. Referring a patient to a place where he gets care to his satisfaction at modest or no cost is also rewarding. Such patients become permanent clients, as do their family members. They are walking advertisements and the returns from them are always worth the investment. Only a short-sighted provider would insist on extracting fees from such patients.' But also, 'With full information to patients that the same treatment is available from the NTP, if a patient is willing to pay a consultation fee to the doctor, why should there be any objections?' summarises the attitudinal and structural barriers to effective public-private collaboration.



The findings of the assessment have confirmed the strong case for addressing the private sector involvement in TB care. This sector poses both threats and opportunities to effective TB control. If the private health sector persists and grows as an alternative and unregulated source of care, NTPs will be hampered in reaching their case detection targets. The poor case management practices in the private health sector could dilute the epidemiological impact of the DOTS programmes. Such practices, if unchecked, could contribute to the evolution and spread of MDR-TB.

The private health sector also offers major opportunities to further TB control. The private health sector is a valuable resource, located close to, and trusted by, many TB patients. By involving PPs, NTPs can increase case detection. Since many patients first approach PPs, there is an opportunity to reduce diagnostic delay with a concurrent reduction in transmission. By enlisting PPs, NTPs can enhance patient access and acceptance, thereby improving treatment outcomes. There is also the potential to share service delivery with the private sector and thus moderate the workload on frontline health workers. Of course, this has to be traded off against the likely increase in tasks such as liaising, training and monitoring. Most TB patients are poor and many of them use the private health sector. There is a compelling case to address this issue in order to alleviate the health and socio-economic burden on households.

Finally, DOTS implementation has to be viewed within the context of changing health systems. Health sector reforms comprise a wide range of initiatives. The common themes include a strengthening of the government role in providing information, in regulating, and in financing interventions of public health importance while partnering with the private sector to achieve a balanced public-private mix in service delivery. For the long-run sustainability of the TB control effort, NTP managers will have to adapt their strategy to these trends.



## Strategic Dimensions in TB Control

In the design of a comprehensive TB control strategy, choices have to be made on six key dimensions – technology, target group, financing, regulation, medical and public health education, and delivery mode. DOTS, the recommended strategy, has clear guidelines on technology and the target group. Options on the suitable public-private mixes in the financing and delivery of TB control have not yet been given adequate consideration by most NTPs. There also appears to be room for a more strategic use of regulation and the medical education curricula towards furthering TB control.

It is worth making a comment on the financing of TB control. There are valid reasons, egalitarian as well as practical, to justify public financing of TB control. The disease has large externalities. Furthermore, most of its victims come from relatively poor households. It usually strikes in the productive age groups. It thus represents a catastrophic expense for most afflicted households. Public subsidies might well be necessary to ensure treatment completion among such patients. However, it should be noted that in some poor countries, out-of-pocket household expenditure on TB rivals public expenditure on the same. In India, annual household expenditure on account of TB is estimated at USD 150 million, many times the government expenditure on TB control [14]. Treatment outcomes in the private health sector in India suggest that much of this expenditure is wasted – delivering symptomatic improvement but not cure. Arguably, systemic improvements could lead to improved treatment outcomes at a fraction of the current cost. The issue of financial sustainability is important here. DOTS can impose substantial time and labour costs on the health system. Even with the growing body of literature on the relative cost-efficacy of DOTS vis-à-vis other forms of TB control [44-48], governments are reluctant to make long term funding commitments. In fact, the Kenyan NTP is already seeking to shift the higher-income TB patients to private sector DOTS-type schemes in order to free limited public resources for the truly needy.

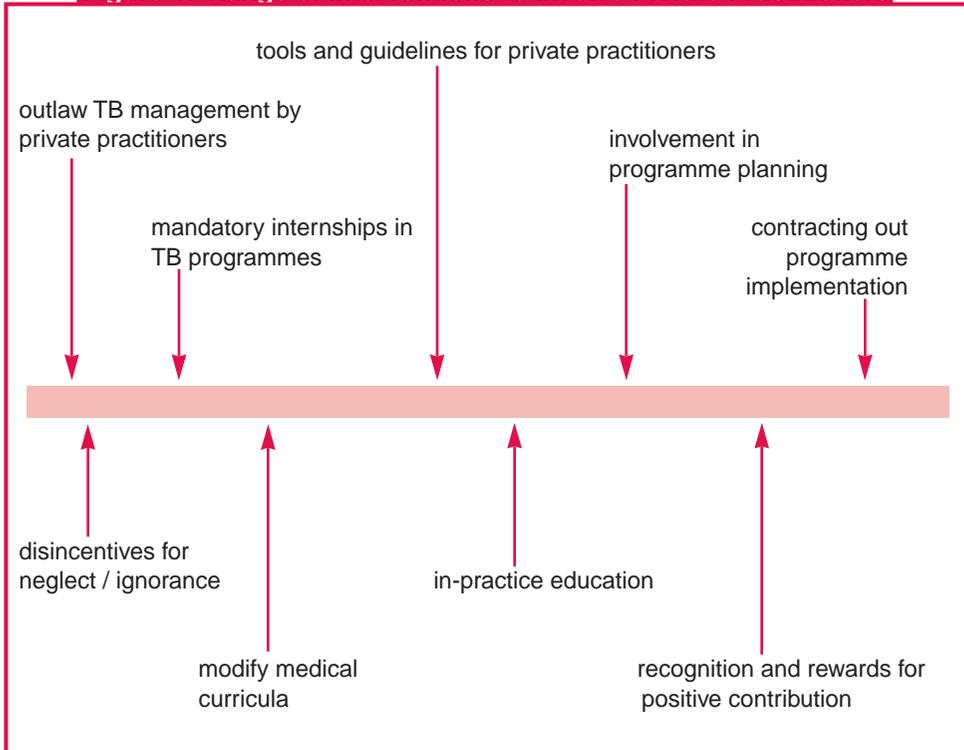
In this report, the focus is on the existing public-private pattern in delivery of TB care and the choice of a more balanced public-private mix. There are other features of care delivery that merit a brief mention. In particular, how user friendly is the service delivery of the NTPs? It has already been pointed some well-functioning NTPs fail to attract many TB patients. For instance, studies in Vietnam have found that TB patients are deterred by certain aspects of the NTP approach to TB care. Some patients perceive the diagnostic and administrative procedures as complicated; supervised drug intake is also viewed as a hindrance. There are concerns that the NTP devotes insufficient attention to smear negative cases and that it has barriers to care for the homeless and for those who refuse supervision of therapy [24,49,50]. Clearly, the design of the delivery system has to take into account the needs and preferences of TB patients and the larger community. In this context, the need to understand and take continually into account people's perceptions, health-seeking behaviour and expectations from the health care services cannot be overemphasised.



## The Range of Strategic Options

In principle, control programmes can choose from a broad set of options ranging from an exclusively public system through parallel and independent public and private systems to a coordinated public-private mix. In practice, most national TB control strategies assume public financing and the programmes have been designed to deliver services exclusively through government channels. These programmes have no explicit strategy of addressing private sector involvement in TB care; they follow an implicit strategy of 'denial' or 'tolerance'. There are exceptions. For instance after exploring various options, Syria has chosen to concentrate TB care within the public system by excluding PPs from treatment of patients. On the other hand, pilot projects in some countries such as India are actively seeking to involve PPs in the control programme. Figure 1 depicts the range of interventions currently observed in various settings during the assessment. Table 3 lists selected examples of NTP activities with the private health sector. It can be seen that the approaches by various NTPs span a spectrum from exclusion to inclusion of private providers. summarises the range of options available to NTPs.

**Figure 1. Range of Interventions to Involve Private Practitioners**





**TABLE 3** Select Examples of NTP Efforts to Address the Role of the Private Providers\*

Dominican Republic	NTP manager, who has also been a private physician, has excellent rapport with private sector. In some instances, TB patients reporting to private physicians are co-managed with NTP.
DR Congo	NTP provides team training to a doctor, a laboratory technician and a nurse each from Kinshasa city hospitals and polyclinics. Drugs are provided at subsidised costs. Patients are managed according to guidelines.
Egypt	NTP manager invites leading private chest physicians to join the NTP. One leading chest physician is also a university chancellor. Pilot projects are started with five university hospitals adopting DOTS. Continuing TB education for in-practice chest physicians initiated; modifications to TB education in medical curricula planned. In another pilot, private laboratories report results of all sputum tests to the NTP
India	A few running and evolving models: 1. A private non-profit hospital runs a DOTS project for patients referred by private GPs, DOT done in neighbourhood centres located in private nursing homes, clinics, and private and NGO dispensaries; 2. A voluntary Organization acts as an interface between PPs and NTP to facilitate referrals, and DOT by PPs. 3. NTP treatment supervisors assigning diagnosed patients to their preferred private practitioner agreeing to do DOT, maintain records, and report default. 4. Local association of doctors trying out graded involvement of PPs ranging from referral to running a DOTS programme.
Kenya	Anti-TB Association provides subsidised drugs to private hospitals and chest physicians in Nairobi who in turn follow NTP guidelines, notify cases, assist in defaulter retrieval and maintain and submit records
Morocco	Two successive yearly surveys show very satisfactory TB management practices of private physicians. Forty per cent patients referred to NTP are from private sector. Probable reasons for good management practices of private doctors: undergraduate medical curricula provide substantial time for training in TB and all postgraduates have to work within NTP before getting license to practice.
New York City, USA	Upgrading and improving the clinical services offered by chest clinics located throughout the City. State-of-the-art and confidential services including DOT provided free of cost to suspects and patients including treatment for latent infection to high-risk individuals, social services, HIV counselling and testing. Result: a four-fold increase in referrals from private sector. Obligatory for laboratories to report results of sputum smears and those of drug susceptibility testing.



Republic of Korea	NTP shares survey results with PPs of their own TB management practices and treatment outcomes of their patients. Improved performance demonstrated in a subsequent survey.
Syria	Dissatisfied by private physicians' poor response to persistent and varied approaches to involve them, the NTP manager convinces the MOH to execute a decree banning sale of anti-TB drugs in private pharmacies. Effectiveness yet to be evaluated.
The Netherlands	Involvement of PPs at all levels including representation on TB Control Policy Committee. Clarity and consensus on roles to be played by the public and private sectors in managing each patient.
The Philippines	NTP supports two projects: a university hospital and an upper class private hospital in Manila run well performing DOTS clinics.

**\*Refer appendices**

**Table 4** Framework for Addressing Private Sector Involvement in TB Control

		NTP Strategy towards the Private Sector		
		Public System	Parallel Systems	Collaborative Systems
Key Dimensions of choice in TB Care	<b>Service Delivery</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Diagnosis and/or treatment in public sector</li> <li><input type="checkbox"/> Private role limited to referrals</li> <li><input type="checkbox"/> Drugs procured and delivered by the public sector</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Ignore the private sector</li> <li><input type="checkbox"/> Compete with the private sector</li> <li><input type="checkbox"/> Encourage private referral of poor &amp; private treatment of rich</li> <li><input type="checkbox"/> Drugs flow through both public and private systems</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> NTP provides services to private providers &amp; patients</li> <li><input type="checkbox"/> Incentives to individual providers for specific tasks</li> <li><input type="checkbox"/> Private agencies responsible for delivery of care to defined populations</li> <li><input type="checkbox"/> Most drugs procured in bulk by NTP</li> </ul>
	<b>Medical Education</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> TB case management in medical curriculum</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> TB case management in medical curriculum</li> <li><input type="checkbox"/> Inform private providers</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> TB case management in medical curriculum</li> <li><input type="checkbox"/> Inform, Continuing Medical education</li> </ul>
	<b>Regulation</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Mandatory notification</li> <li><input type="checkbox"/> Mandatory referral</li> <li><input type="checkbox"/> Restricted availability of anti-TB drugs</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Mandatory notification</li> <li><input type="checkbox"/> Legal redress for private sector consumers</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Mandatory notification</li> <li><input type="checkbox"/> Policy framework on inclusion e.g. user fees, contracts</li> <li><input type="checkbox"/> Forum with private sector representation</li> </ul>
	<b>Financing</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> General revenues</li> <li><input type="checkbox"/> Social Insurance</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Public system funded by general revenues, insurance</li> <li><input type="checkbox"/> Private system funded by user charges, insurance</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> System funded by suitable mix of public funds, insurance and user charges</li> </ul>





It must be emphasised that the so-called exclusion of PPs from TB control can only be relative and theoretical. Wherever private health sector exists and is used by the people, identification of symptomatic individuals, suspicion and/or detection of TB, and notification and/or referral to the NTP cannot be taken out of the domain of PPs.

## Public System

NTPs that seek to exclude the private health sector use mechanisms such as mandating referrals and restricting availability of TB drugs. Among the countries visited, Syria has recently prohibited the sale of key TB drugs in the private sector with the objective of compelling private providers to refer TB cases to the public sector. This strategy has long been in place in Algeria, Chile and Norway. While private providers often continue to play a role in diagnosis, treatment is delivered mostly through the public sector. Other countries such as Oman have mandated the referral of TB cases to the public sector. The policy seems to have worked reasonably effectively in Oman. In general, there are major pre-requisites for the success of such policies. First, government-run services should be capable of substituting for private sector provision. Specifically, the public sector should have adequate reach and capacity to take on the private sector caseload. Second, patients often prefer the private practitioners for the convenience and privacy they afford. If case finding is not to suffer, the public sector should be able to compensate for the loss of at least some of that convenience. Otherwise there is a risk that patients delay health seeking or seek care in the informal sector. Finally, and crucially, there has to exist the political will to exclude private providers and the administrative capability to enforce such legislation.

While some of the countries with an explicit strategy to minimise the private role in TB control have achieved their objective, in others such as Syria, the effectiveness of such a strategy has yet to be evaluated.

## Parallel Systems

Parallel systems were found to be in place in most countries visited. NTPs can opt for an exclusive focus on service delivery through government channels with minimum interaction with parallel private care provision. In effect, the private health sector could be 'ignored' or 'tolerated'. A major motivation behind such a strategy is the public sector's drive to seek a dominant role in TB diagnosis and treatment. In fact, this is an implicit assumption underlying many control programmes. The programmes believe that the private sector will be progressively marginalised as the reach and quality of public sector TB control activities improve. Morocco and Peru are examples of countries with a strong and well-functioning TB control programme; the public sector manages most of the TB cases. In Morocco, TB care is concentrated in the public sector in the absence of any active intervention by the NTP. PPs tend to refer diagnosed cases of TB; private general practitioners are referring about 97% of the TB cases they diagnose. However, private chest physicians are more inclined to treat TB patients. The case management practices of the chest physicians are largely appropriate. Morocco's achievement can, in big part, be attributed to a well-structured and effective TB component in the curriculum of medical students (Box 2). A few important observations can be made on the general applicability of Morocco's use of medical education to mould future practitioner behaviour. It is clearly a sensible approach



that merits a close look and possibly, emulation by other developing countries. However, it is a long-term strategy and will not result in tangible changes in behaviour of currently practising physicians. Crucially, to the extent that the NTP seeks to encourage referrals by PPs, the NTP has to be perceived to be performing well. Only then would most PPs refer their patients. Finally, the question of the appropriate scope and depth of instruction on TB management in the medical curriculum has to be addressed within the broader context of the long-standing debate on the public health content in clinical training.

### **Box 2 Moroccan PPs are Groomed to Manage TB Effectively**

Morocco has a strong DOTS programme covering the entire population. The NTP has sought to understand case management practices in the private health sector through two successive studies in Casablanca and Tangiers, in 1995 and 1997. The studies found that PPs were detecting about 30% of all TB cases. General Physicians (GPs) and chest physicians refer about 20% of the symptomatic individuals to the NTP straightway. GPs use both X-rays and sputum examinations for diagnosis; 97% of the diagnosed cases are referred to the NTP. Chest physicians refer about 36% of the cases they diagnose and treat the rest themselves; the diagnostic and treatment practices are in line with NTP guidelines. Why are the PPs in Morocco more cognisant of the 'public health' aspects of TB control than their counterparts in most developing countries? The answer probably lies in the well-structured TB component in the curriculum in Moroccan medical schools. During undergraduate training, 40 hours are devoted to instruction on tuberculosis and its management. Undergraduates are taught to remain alert to TB symptoms and the recommended diagnostic procedures. A key message is the prompt referral of confirmed cases to the NTP. It is also mandatory for postgraduates in the chest speciality field to work for a specified time in the NTP. Practitioners learn to appreciate the public health aspects of TB control. The good performance of the NTP is crucial; PPs trust the program and readily refer their patients to its care.

In Peru, the success of the NTP could be attributed to many factors; two of which are of direct interest here. First, almost all physicians in Peru have both public and private practices. Since they are intimately familiar with the high-quality control programme, physicians appear to readily refer patients who come to their private practices. Second, the government health infrastructure in Peru is well perceived by the community. It is worth noting that, at the point of delivery, TB control programmes are integrated into the general health services. Therefore, the overall perception of the government-run health services influences perceptions of the TB control programme. In particular, perceptions of the general health services can influence choice of providers by TB symptomatic individuals in the pre-diagnostic stage. Accordingly, NTPs are likely to be hard pressed to meet case detection and treatment targets in countries where the general health services are not well perceived by the population. Such countries can be predicted to have large and fast growing private health sectors, possibly including a substantial informal component. Thus, DOTS programme managers often face the twin challenges of a weak public health infrastructure and a large private health sector with a major role in TB care. Under such circumstances, it is not advisable for the NTP to continue to ignore the private health sector with the intention of eventually acquiring a dominant share of TB cases. The threats to TB control and the missed opportunities from the 'status quo' have already been enumerated in the case for addressing private sector involvement in TB control.



Independent and parallel private delivery of TB care would be acceptable in situations where PPs follow standard case management procedures and achieve satisfactory treatment outcomes for all their patients. However, we could only find examples of satisfactory performance by the private health sector in countries where the NTPs collaborate with PPs. For instance, in the Netherlands, the programme staff who perform the essential 'public health' functions supports private management of TB cases. These include counselling and support for needy patients and absentee retrieval.

## **Public-Private Collaboration**

The various ways in which NTPs in the countries visited have sought to collaborate with the private health sector, albeit on a modest scale, are described above in this section. Such efforts can range from a passive dissemination of case management guidelines to active involvement of PPs in DOTS programmes.

Education and information can be used to improve case management practices. Continuing medical education (CME) sessions and dissemination of NTP guidelines in user-friendly formats could conceivably boost the specificity and sensitivity of the overall diagnostic process. It could reduce the portion of diagnostic delay attributable to provider misjudgement. It could also reduce non-specific treatment and avert unnecessary laboratory examinations. Further, it could induce wider use of recommended prescriptions and could promote record keeping. But it has its limitations in improvement of case holding which is one of the key challenges in TB treatment. Providers and patients often need support mechanisms to ensure complete treatment. Nevertheless, the process of informing and educating PPs is important in itself. It can act as a spur to public-private dialogue. One of the main findings of the assessment was a communication void between the NTP and the private health sector. A dialogue at the national, provincial and district levels between the NTP and private players is a prerequisite to any sustainable collaboration.

Promotion of combined drug formulations merits special mention. By itself, it does not solve the problem of irregular treatment. But it can reduce the incidence of mono-therapy and slow the evolution of MDR-TB. It also simplifies treatment logistics for providers and patients.

For countries with large proportion of population covered by public insurance schemes, like for example South Korea or many of the Latin American countries, such schemes may provide a mechanism to ensure compliance and collaboration of private providers. Having provided detailed guidelines on TB case management to PPs, TB experts at the Korean Institute of Tuberculosis have suggested that the Institute could screen their claims for appropriateness before a reimbursement is made by the insurance Organization. The Government of the Philippines is exploring the idea of using TB as a test case for their PHILHEALTH schemes under which health care expenditure incurred on public and private providers will be reimbursed to the poorest 25% population. Training of doctors on proper TB management and assessing claims for adherence to guidelines are likely to be the mechanisms employed.



## ***Public-Private Mix Models in Service Delivery***

Some of the promising initiatives either proposed or already under way are attempting to build a suitable public-private mix in the delivery of TB care (Table 3). Key service delivery tasks in the DOTS package are shared among the NTP, PPs and, possibly, other local players such as NGOs with the potential to participate. The basic premise is that each of the partners in the collaboration has relative strengths and tasks are shared accordingly. For instance, PPs are located close to and trusted by the community. Since they usually have a major share of the first contacts, they offer an opportunity to increase case finding. They could look after clinical aspects and also serve as DOT providers.

Division of responsibility for delivery of TB care is already observed notably in some of the developed countries. In the Netherlands, PPs provide clinical care while public health nurses take care of motivation, education, absentee retrieval and social support for patients. The main elements of the successful public-private partnership include decentralization, transparency, mutual respect, continuing dialogue and private provider involvement at all levels of policy making. The institutional mechanisms underpinning this collaboration are not necessarily resource intensive; these can be adapted for application in poor countries.

Efforts are under way to involve PPs in TB control in many sites around the world. Public-private mix schemes with varying degrees of private provider involvement have been proposed or are being tried out. The models vary by site but there are important common elements. First, the essential features of the DOTS package are preserved. The NTP guidelines are adhered to; accredited sputum microscopy laboratories are used and standard treatment regimens prescribed. All the key DOTS tasks are still carried out; only they are now shared with private agencies or individuals. Second, although NTP staff have initiated the efforts at some places by private agencies or researchers and, in others, in all the sites there has been intensive dialogue between the local NTP staff and the private players. The local NTP staff are aware, and usually supportive of the efforts. Third, all the sites are focused on delivery of care; the appropriate public-private mix in financing is not the research issue being addressed. Most PPM models depend to some degree upon public financing, mostly in kind such as supply of drugs and support by NTP staff. Finally, all the models envisage a DOTS agency or a centre that liaises with PPs and undertakes some or all of the responsibility for the 'public health' aspects of service delivery. In some cases, the DOTS agency is the local NTP unit itself; in others it is a locally based private agency such as a charitable hospital or a private clinic. In either case, the integrity of the recording and reporting system is maintained. There is one TB register for a defined population or a geographical area, regardless of the public or private service providing care.



### **Box 3 Emerging Public-Private Mix Prototypes**

A variety of public-private mix delivery models are being tried out or have been proposed in sites in India, the Philippines, Vietnam, Indonesia etc. The PPM models are site-specific but in all cases, there is a single 'DOTS agency' that is responsible for the delivery of TB care to a defined area or population. In particular, this DOTS agency looks after the 'public health' elements in provision of TB care such as ensuring quality microscopy, regular drug supply, patient support services, absentee retrieval, and recording and reporting including maintenance of one TB register. The emerging PPM models can be grouped in to two sets. In one set of models, the DOTS agency is the conventional DOTS unit within the NTP. Working examples include the local NTP units in Jamnagar and Ahmedabad in India. The local NTP staff liaise with private practitioners and the practitioners can be involved in a variety of tasks. The second set comprises models where the DOTS agency is private, not a formal part of the NTP. Such efforts include those in Manila, The Philippines and Hyderabad, India. A private, often non-profit, institution such as a charitable hospital can assume the role of the DOTS agency. It is responsible for delivering TB care to a defined area or a population. The functions of the local NTP changes – the focus is now on identifying a promising candidate for the role of the DOTS agency, negotiating a Memorandum of Understanding (MoU) and monitoring performance. The NTP will usually provide drugs and a stipulated amount of cash to cover start-up and recurrent costs. A major motivating factor for a private DOTS agency is that some local private institutions might be better placed to interact with private practitioners and perform key 'public health' tasks.

One advantage of using NTP units as the DOTS agencies is that it would facilitate speedy replication of successful PPM pilots. Another is that the overall responsibility of utilising public funds and delivering TB care rests within the public sector. NTP staff can devise and administer simple incentives, financial or otherwise, to private providers for the performance of one or more tasks. Complex contractual arrangements are not required. For instance, in China, village doctors have been paid a small sum, Yuan 5, for each new infectious case referred. Further, a sum of Yuan 50 is paid for supervision of therapy of a sputum smear positive case conditional upon completion of treatment [51]. There are existing budgetary provisions in many NTPs for financial incentives to health workers for detection and cure of new sputum smear positive cases. The assessment found that NTP managers in India and Vietnam were not averse, in principle, to offering similar incentives to private providers who carried out the desired tasks.

On the other hand, most PPM models require sustained interaction with numerous individual PPs – a task that could prove time-consuming and difficult for NTP staff given that most have no prior experience of public-private collaboration. Some areas, particularly in cities, might have strong private institutions that are better placed to liaise with individual practitioners. These institutions are potential candidates for DOTS agencies, which could undertake to implement the PPM DOTS model for a defined population or a geographical area. There are a few working examples of such agencies.

In one of the ongoing projects in Manila, the Philippines, the DOTS agency is a large and modern private hospital, Makati Medical Centre. The Centre provides the working space for the physician, the two public health nurses in the pilot and one support staff for absentee tracing and retrieval. The Tropical Disease Foundation, a research Organization based in



the Centre, provides diagnostic services. The NTP supplies the TB drugs while the local government assists in mobilising the community [Tupasi, Personal communication]. Another interesting private sector DOTS project is operational in Manila. A pharmaceutical company has launched it. The project targets well-off patients of PPs averse to treatment at NTP clinics. An entire course of anti-TB drugs is made available to the patient at a discount of 30% on the retail price [Romulo, Personal communication]. The effectiveness of the scheme remains to be analysed. One area where pharmaceutical companies can play an important role is in provider education. Drug companies representatives have widespread reach among PPs and could help to positively influence case management practices.

Another example of a private DOTS agency is the Mahavir pilot in Hyderabad, India (see Box 4). This pilot which covers a population of 500,000 has successfully met case detection and cure rate targets.

PPM models in which the local NTP unit serves as the DOTS agency have an existing institutional base to facilitate replication. However, replication of PPM models based on private DOTS agencies could be a challenge. There are at least three major concerns. First, how best to identify and enlist private suitable institutions. Second, and importantly, robust yet simple contractual arrangements between the NTP and the DOTS agency would have to be devised. The government would typically provide resources such as drugs, consumables, stationery and possibly funds. In return, the DOTS agency would be responsible for meeting TB control targets in the specified population. In effect with public funding and private provision, specific process and outcome indicators have to be agreed to and monitored carefully. Thirdly, there may be problems of sustainability.

#### **Box 4 The Mahavir Public-Private Mix Pilot – A Success Story**

In collaboration with the government and PPs, Mahavir Trust Hospital, a non-profit speciality hospital, runs a public-private mix project in Hyderabad City in India. The project area has a population of 500,000. Slum-dwellers comprise about 75% of the population; this population is at a higher risk of TB. At the onset of the Mahavir project, Dr Murthy who is the Medical Advisor for the project initiated contact with local PPs. They were informed about the DOTS strategy and their participation was solicited with the assurance that they would remain the primary care givers for their patients. PPs refer TB suspects to Mahavir Hospital. Diagnosis and initial treatment is done at the hospital. A detailed counselling session is held where the patient is informed of the importance of regular and complete treatment. The patient has the option of receiving free drugs under DOT at Mahavir or one of the other 26 DOT centres in the area. No patient has to walk for more than 0.5 km to receive DOT. The DOT centres, located in private nursing homes and clinics, open at 7.30 am and are very convenient for patients who have to work. About two-thirds of the TB patients are referred by participating practitioners. The main role of the PPs is to refer symptomatic individuals; a few also serve as DOT observers. Mahavir has achieved the case detection target of 70% and a cure rate of more than 85% among new infectious patients. Further, almost half of all the new smear positive patients are women compared to a third in other DOTS areas. Dr Murthy believes that the model is replicable in other parts of urban India. He points out that private centres already exist and that patients already use them. He feels that a strategy of public-private collaboration is feasible, replicable and in the best interests of patients, providers and the government.



Other examples of private DOTS agencies are some large NGOs in Bangladesh. Six NGOs run large DOTS projects delivering TB care to defined populations. They together cover 35% of the area under DOTS in the country. The collaboration between the government and NGOs is based on Memoranda of Understanding (MoUs). Collaboration with NGOs is intrinsic to the TB control programme. The performance of one of these NGOs, the Bangladesh Rural Advancement Committee (BRAC), has been evaluated. Its programme has been described as successful with a cure rate of 85% and a dropout rate of just 3.1%. An accompanying survey found that TB prevalence in BRAC areas was only half of that in the comparison area covered by government-run service [52]. BRAC itself has a strong rural presence and does not link with private practitioners. However, its success in implementing DOTS does suggest that well-established NGOs with grass-roots presence could be prime candidates for DOTS agencies.

### Choosing the Appropriate Strategy

Table 5 is a summary of current NTP strategies on the public-private mix in delivery of TB care with select examples and an assessment of experience to date. It appears that the TB control programme can choose from one of the three strategic options. It can opt to build a public delivery system excluding the private sector. It could also 'ignore' the private sector and focus on delivery through government run services. In effect, there would be two parallel and independent delivery systems. The third option would be to engage the private sector players. Education and information would be one form of collaboration. More active forms already under investigation would involve PPs in one or more aspects of service delivery. It is worth commenting yet again that most NTPs either ignore the private health sector in providing care or assume that they will eventually attract most of the TB cases through superior quality and coverage.

The optimal public-private mix in delivery of TB care will have to be derived from a careful analysis of, supply and demand-side, factors. The mix will vary across and possibly within countries. The strategy has to take into account users' perception of the quality, accessibility and affordability of different groups of providers. Further, the strategy on the private sector has to be a multi-faceted one with coherent choices on delivery, financing, regulation and education.

In choosing a strategy, NTPs have to consider at least two sets of factors. One set includes factors such as relative capacities and potential of the public and private health sectors in detecting and treating TB cases. The second set of factors relates to the trends in the broader health system.

Regarding the potential of the two sectors in TB control, the relevant question for the NTP is, 'Can the TB control programme realistically hope to achieve its case detection and case finding targets working mainly through the public sector?' If not, some form of inclusion of the private health sector might be the sensible strategy. A related question is whether the programme can do so within the next 5-10 years. Since the private health sectors are growing rapidly in many countries, some form of collaboration could become inevitable in the near future. Many of the high burden countries have large and growing private health sectors. Even though these countries are strengthening their DOTS programmes, the overall public health infrastructure is not strong. PPs have a major share of the TB caseload, particularly in the initial stages of help seeking by patients. There is a compelling case for collaboration with



**Table 5** Current NTP Strategies on the Public-Private Mix in Delivery of TB Care

Strategy & Interventions	Select Examples	Experience
<b>Public System (exclude private providers)</b>		
Restrict anti-TB drug sales	Chile	Successful
	Oman	Successful
Mandate referrals	Syria	To be evaluated
<b>Parallel Systems (independent public and private delivery systems)</b>		
Ignore	Many NTPs	Unsatisfactory
Compete and attract TB cases	Morocco, Peru	Successful
<b>Collaborative systems (include private providers)</b>		
Educate, Inform providers	Many NTPs (long term aim)	To be evaluated
<i>Collaborate in delivery</i>		
1. Public health support services to PPs	Netherlands	Successful
	Jamnagar, India	To be evaluated
2. Incentives to individual providers for performance of specific tasks	China	Successful
3. Private agencies responsible for delivery of care to defined populations	Chennai, India	Successful
	Hyderabad, India	Successful
	Bangladesh	Promising
	Manila, Philippines	Promising
	Haiti	To be evaluated

PPs in order to increase case detection and reduce diagnostic delay. The other opportunities afforded by collaboration have already been mentioned.

Local NTP staff and private individuals in various sites in India, Indonesia, Philippines and Vietnam have arrived more or less independently at similar conclusions; they have sought to include PPs in DOTS programmes. Even where the DOTS programmes are not yet performing satisfactorily, it might not be advisable to continue to ignore PPs. Plans to strengthen the NTP should include efforts to collaborate with PPs. In particular, local DOTS units should be granted greater autonomy to explore innovative public-private mechanisms. This is in keeping with the trend towards decentralization within the health systems in many countries.

NTP managers also have to be cognisant of changes in the overall health system context. The existing reality of widespread private provision of health care is being acknowledged.



Governments are being urged to focus on what they do best – inform, regulate, make policies and ensure financing for essential interventions. Within the public sector, there are calls for closer co-ordination among disease control programmes and a more patient-centred approach. Sustainability of programs is under closer scrutiny. In keeping with these trends, TB control programmes should be giving due consideration to the appropriate public-private mix in provision of TB care.

Active exclusion of PPs can only be virtual. The case for minimum involvement of PPs could be made in countries with strong NTPs and well functioning government health services. In such cases, the public sector could be predicted to start off with a large share of the TB caseload. Further, the public sector will have adequate capacity to treat and PPs might not be averse to referring their patients. They could do so voluntarily; the same could be achieved by mandating referrals or by restricting the availability of TB drugs. Of course, governments must have the requisite political will and enforcement capability. Even in such cases, NTPs should remain cognisant of the long-term trends in the health sector. NTP managers should also be open to innovative ways of harnessing non-governmental resources to improve the TB control effort, and consequently, to engage PPs in TB control.

Collaboration with PPs for TB control can pave the way for public-private collaboration for control of communicable diseases in general. PPs are likely to show greater interest in participating in successful public-private mix projects if care is delivered for a range of diseases. While TB cases represent a small fraction of practitioners' caseloads, communicable diseases as a whole would account for a significant proportion of their caseloads. Broad collaboration could be expected to be attractive to governments as well since the relatively fixed transactions costs of dealing with numerous private providers is spread over a larger number of diseases.



## The Contours of a Policy Framework

There is a clear-cut case for addressing the issue of the private sector role in TB care in many of the high burden countries. Failure to do could seriously impede progress towards the goal of 70% case detection by the year 2005 as set out in the Amsterdam Declaration [53]. Conversely, innovative forms of partnership with private providers could greatly assist NTPs in meeting those goals.

Most TB control programmes do not have a well-considered strategy towards the private health sector. Existing policy frameworks are focused exclusively on provision through the public sector. These frameworks need to be revised and expanded to incorporate policies on private involvement in TB care.

While more information, research and debate are needed to develop and finalise WHO policy guidelines to NTPs on the issue of private health sector involvement in TB control, the findings of the global assessment suggest some distinct elements that may be recommended as the basis for these guidelines.

**1 Action-oriented communication with and information gathering on the private health sector at all levels should be encouraged.**

NTP managers should have a reasonable assessment of the extent and nature of private sector involvement in TB care, the threats and opportunities posed by the private health sector, and any ongoing dialogue or collaboration. Action research on various schemes of public-private collaboration is encouraged.

**2 Collaboration with the private health sector within the DOTS framework.**

The extent and details of the collaboration will vary across and within countries; those are best worked out within countries. Local programme staff should enjoy greater autonomy in devising site-specific public-private mix delivery models. One or more elements of the NTP guidelines could be adapted to the local context e.g. innovative ways of supervising therapy and involving communities. Accountability should be maintained.

**3 Evaluation of PPM pilot projects and scaling up of those found to be successful.**

Pilot projects should be set up to develop public-private mix for TB care. These pilots should be evaluated in terms of health outcomes, cost-effectiveness, equity and quality of care. Successful models should be scaled up and replicated.

**4 Availability of public funding for provision of TB care by private providers.**

Most PPM systems will involve a degree of public funding, for instance, drug supply from the NTP. In all such cases, accountability will be maintained. Private funding, if available, can usefully supplement the public funds.

**5 Emphasis on the 'public health' aspects of the control of TB and other communicable diseases in the medical curricula.**

Revised medical curricula should encourage medical students to spend sufficient time working with the NTP and other communicable disease control programmes as part of their training.



## The Role of WHO

WHO is well placed to:

- 1 Advocate** highlighting the issue of private provision of TB care, and the related threats and opportunities to TB control. This report is one step in that direction. NTP's should be encouraged to carry out situational assessments, initiate dialogue with key private players and support action research on promising modes of collaboration.
- 2 Co-ordinate and stimulate research** on public-private mix delivery models. WHO can set up networks to link researchers of existing projects, and to identify and enlist additional researchers. WHO can assist in arranging funds for pilot projects. It can develop a research framework to embrace the wide range of studies and the varieties of models being piloted. The research effort can be provided technical support; in particular assistance in thorough documentation and gathering of evidence to permit comparisons across models and with standard NTP units. Regional mechanisms could be set-up to support the research efforts and to facilitate the research-to-policy process. Finally, WHO can assist in disseminating the results in the scientific media and to NTPs and international agencies engaged in TB control.
- 3 Prepare and disseminate guidelines** on policies that NTPs should adopt towards the private health sector.
- 4 Provide technical assistance** to NTPs to implement public-private mix policies.
- 5 Explore ways to extend the public-private mix activities** in TB care to the control of other communicable diseases

## The Role of Countries

In high prevalence countries with large private health sectors, NTP managers should:

- 1 Support operational research on the role of the private providers in TB care.** Efforts to engage with private providers have been hampered by lack of information. More precise knowledge will help determine the extent of input required for effective involvement of private providers in TB control. Availability of baseline information will also help evaluate strategies on PPM for TB.
- 2 Solicit representation of private providers on advisory and monitoring bodies of NTP.** Regardless of the extent of their current contribution, representatives of private health care providers should be involved in planning of TB control activities. Policies on private sector involvement are likely to succeed if they are developed with informed participation of private providers.
- 3 Initiate and maintain dialogue with private providers at all levels.** Insights into expectations of private providers from NTP and the extent to which they can collaborate effectively will be known only through continuous dialogue with the private sector at all levels. Their involvement at the highest national level needs to be reinforced by the NTP at the state, district and sub-district levels reaching out to



private providers in their areas of operation and soliciting co-operation. Working models of collaboration are likely to emerge from such interactions.

- 4 **Decentralise TB control activities to allow development of locally relevant PPM models.** Local situations vary greatly and many elements of a robust and sustainable model of PPM will be locally specific. NTPs should be encouraged to explore various ways of collaborating with the local private providers.
- 5 **Revise national TB control frameworks to include guidelines on the involvement of private providers.** The emerging policy framework discussed earlier coupled with results of action research will assist countries in developing policies on the role of the private health sector in TB control.



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## Countries and Sites Visited During the Global Assessment

Region /Country	Sites
<b>African Region (AFRO)</b>	
Congo, Democratic Republic of	Kinshasa
Kenya	Nairobi
South Africa	Johannesburg
Uganda	Kampala
Zimbabwe	Harare
<b>Region of the Americas (AMRO)</b>	
Argentina	Santa Fe Buenos Aires
Brazil	Sao Paulo
Dominican Republic	Santo Domingo
Mexico	Mexico City
Peru	Lima
United States	Washington DC New York City
<b>Eastern Mediterranean Region (EMRO)</b>	
Egypt	Alexandra, Cairo
Lebanon	Beirut Tripoli
Morocco	Casablanca
Syria	Damascus Hamah
<b>European Region (EURO)</b>	
Czech Republic	Prague
Netherlands	Amsterdam Hague
<b>South East Asian Region (SEARO)</b>	
India	Ahmedabad Hyderabad Mumbai New Delhi
Indonesia	Jakarta Yogyakarta
Thailand	Bangkok
<b>Western Pacific Region (WPRO)</b>	
Philippines	Manila
Republic of Korea	Seoul
Vietnam	Hanoi Ho Chi Minh City



## Regional Profile

The countries visited included South Africa, Kenya, Uganda, Dr Congo, and Zimbabwe. The TB problem in Africa cannot be considered in isolation; it has to be viewed as a twin to the HIV/AIDS epidemic. A general perception that the private health sector has a minor presence and little role to play in TB control is fast changing due to the HIV epidemic and weakened public health systems. As the stigma of HIV gets easily extended to TB, those contracting it tend to shy away from TB programmes. At least initially the tendency is to somehow hide the disease. The rapid rise in the TB burden in the absence of a commensurate increase in the resources available has considerably weakened the capacity of NTPs to tackle the problem. As a response to this, in some countries, initiatives are in place to share the burden with the private sector. Those evolving in Kenya, DR Congo, South Africa and Zimbabwe are particularly interesting.

## South Africa

Private health care accounts for over 50% of the total health care spending in South Africa. Medical Schemes (Insurance) are a major means of financing private health care, although they covered only 18% of population in 1995. Out-of-pocket expenditures account for over 46% of all health spending. It was found in a national household survey in 1995 that, for both urban and rural subgroups in the lowest income categories, there was considerable use of PPs – 25% of the urban poor and 13% of the rural poor reported to be seeking private health care in the event of a sickness.

South Africa has one of the highest annual TB incidences in the world. TB is a serious crisis in the country that is faced with high TB case rates, the emergence of MDR and the impact of a rapidly growing HIV epidemic. There are many NGOs active in TB control work. The programme needs strengthening and better co-ordination with other care providers. The private health sector is not considered to be playing any significant role in rural areas. Urban areas do have a large private sector utilised by poorer sections of the society. With the rapid rise in cases of TB associated with HIV, the number of patients using private hospitals is said to be increasing.

There have not been any organised efforts to involve PPs but some local initiatives are emerging. In the Kempton Park area of Gauteng Province, for example, 145 out of a total of 388 cases were under DOT by GPs in the area. The local TB team had established excellent communication with the private doctors. Problems if any were mutually discussed and sorted out. The patients were seen at the TB clinic for initial evaluation, at the end of the intensive phase and on completion of treatment. According to the local program manager, no constraints were experienced in involvement of GPs in DOT. Another example of a public-private mix model for TB care has been in Mpumalanga province. The Ndlovu Medical Centre has contracted with Department of Health to provide free care for TB patients. The government supplies free anti-TB drugs and sputum tests while the Centre provides free consultation to the patients. In response to modest cure rate of 67% and high default rates, the Centre has recently started a DOTS programme. Results have yet to come in.



## Kenya

The private health sector has a significant presence in Kenya. Twenty nine per cent of all health facilities are private for-profit. Kenya has a reasonably well performing TB control programme with a treatment success rate of 76% for the 1997 cohort. The HIV epidemic is on the rise and there has been a five-fold increase in the TB case notifications over a ten-year period. The Programme Manager, motivated by resource constraints and the help seeking behaviour of TB suspects and patients, has been able to develop an innovative intervention scheme for involving private physicians. The government expenditure on health increased seven folds in 17 years but in real terms the per capita expenditure on health declined three folds, from USD 9 to USD 3 during the same period. Most TB suspects from low income groups presumably seek care at the NTP facilities, but a good proportion of those who might prefer to use and could afford private care are also managed by the NTP. If the cost of private care is brought down by lowering patient expenditure on drugs and investigations, it is thought that such patients will switch to private care.

A proposal for a collaborative project has been developed jointly by KAPTLD, the Kenya Association for Prevention of TB and Lung Disease, and some leading private hospitals and chest physicians in Nairobi. The scheme is about to be launched with initial support from the Dutch Government. The project will be managed by KAPTLD. The PPs and hospitals have agreed to adhere to a patient management protocol which includes use of sputum microscopy for diagnosis. Laboratory reagents for microscopy will be supplied by KAPTLD. Drug regimens to be used have been agreed upon. Like laboratory reagents, KAPTLD will source bulk purchase of drugs at competitive prices and make them available to the private sector at very affordable rates. The private physicians and hospitals will maintain patient records in a previously agreed format and make them available to the NTP when required. Defaulter retrieval mechanism will be put in place and will make use of a roster of public health nurses oriented and trained for the purpose. A private sector drug distributor has also been roped in for timely distribution of drugs. The drug prices have been worked out to cover all the related costs and yet for the patients, the cost of full course of treatment will be at least a third less than the market price. The patients will have to pay for the entire course of treatment up front at the beginning of treatment as a mechanism to better treatment adherence.

The initial support for setting up the project including that for renting office space and a substantial number of treatment courses have been provided. With the income earned out of the sale of these drugs, the project is expected to be self-sustaining and protected against fluctuations in TB programme performance. On the contrary, if the project catches up, it could save money for the programme to better serve the poorer patients. Each patient recruited will be given full information and will be made to sign a statement that s/he is opting for care in private with full knowledge that free care is available at NTP facilities. An operational research and documentation component should be added to the project. It will be interesting to watch the progress and outcome of the project.

## Uganda

Some studies have been done recently on the private health care delivery in Uganda. A study on private health care in Kampala city, that has a sixth of the country's notified TB cases, reported that the city has numerous private health facilities. The private facilities, according to the study, are varied and relatively evenly spread. The services offered are



mainly selling of drugs and treating minor elements. The private sector lacks speciality services and has limited capacity for TB diagnosis. The TB programme manages most TB patients. However, most doctors working in the public sector also have private practices. There are public hospitals providing TB care. The TB programme provides drugs to these hospitals. These hospitals are not maintaining reliable patient records for the TB programme. It has been observed many a times that drugs made available to the public hospitals find their way into private clinics. Patients reporting to those hospitals are also directed to private clinics. The number of patients taking TB treatment in private clinics is not known. The private sector has a negligible presence in rural areas. It is important to check irregular practices prevalent in the flow of drugs from the public to the private sector facilities in Kampala before making any move to involve PPs in the TB programme.

### **The Democratic Republic of the Congo**

The private sector in rural Congo consists of traditional healers to whom patients with chronic cough first present. In Kinshasa City too, it is not uncommon for the poor to seek advice of traditional healers before reporting to public health services. TB services in Kinshasa are well organised through 65 diagnostic and 100 treatment centres distributed among 22 health districts. Drugs and other supplies are regularly available through support provided by EU and the Damien Foundation. Health care providers other than public services include mission hospitals, factory medical services, and private clinics or polyclinics. Notably there are no solo private physicians in Kinshasa. The city reports about 16,000 TB cases a year, and about 40% of the TB patients are HIV positive. An estimated 15% of TB patients are managed in the commercial private sector. These often include the self-employed and salaried employees whose health care costs are borne by their employers. Some of the large factories have their own medical services while other industries hire services of private clinics. Anti-TB drugs are not supposed to be available in private pharmacies legally but we found that Rifampicin was available in a pharmacy we passed by.

Efforts to incorporate private sector into TB programme activities began in 1997. Factory medical services offering TB treatment and private cabinets / polyclinics purchasing TB drugs in Kinshasa were identified. They agreed to participate in a training programme. TB drugs were to be supplied to the private sector at subsidised rates by the National TB Association. The TB programme offered a 3-day training course for medical doctors from each private health facility and a 1-week course for a nurse and a lab technician from the same facility. The TB programme provided supervision and ongoing help for any problems to 19 such facilities. Visits to 6 private health facilities of factories and polyclinics showed regular maintenance of records by these facilities for the year 1997 and 1998. The TB programme did not have enough resources to continue supervision in the year 1999. As a consequence, some of the private facilities discontinued maintaining records as prescribed by the programme. There are many elements within the public-private mix initiative of Kinshasa that progressed well while the public sector programme continued its supervisory activities. The TB programme manager is keen on resuming the supervision and is seeking modest financial support for it. It is important, she says, as it is a question of providing appropriate care to as many as 2000 TB patients a year.

### **Zimbabwe**

The National TB Programme of Zimbabwe was launched in 1962 and presently DOTS services are being expanded from the pilot phase. The HIV epidemic has greatly increased



the TB burden. In 1962, the incidence rate for TB was 60 per 100,000 and by 1998 it had risen to 400 per 100,000. The practice used to be to hospitalise all TB patients during the intensive phase. This is not possible now in view of the enormous rise in the number of TB cases.

Anti-TB drugs have never been available in private pharmacies. While there is a growing private sector and an increasing number of private health insurance companies called medical aid societies, all TB care is provided by the TB programme. Until 1997, private chest physicians used to send their TB patients with drug prescriptions that were honoured without scrutiny. When this practice was stopped in view of the physicians' inappropriate prescribing practices, the private physicians protested. After a programme review in 1997, a National TB Expert Committee was constituted with representatives from university departments of Medicine, Paediatrics and Community Health as well as from the national association of private physicians.

The programme manager also held several meetings with PPs, which were well attended. A private hospital in Bulawayo is currently participating in the DOTS programme. The practice of giving away drugs to PPs' patients has been discontinued. The TB programme is willing to offer facilities at the public hospitals whereby on certain days private physicians could see their private patients and prescribe recommended drug regimens. The programme will provide the drugs free but the physicians will also have to provide free care to their TB patients. It will be interesting to watch how many physicians come forward to accept the offer.



## Regional Profile

The countries visited included Argentina, Brazil, Mexico, and Dominican Republic. A general perception among programme managers in these countries has been that the PPs are not an “issue” in their settings. The number of patients seeking in private care is considered to be negligible. It is believed that TB drugs are not easily available in private pharmacies. Even if they are, the costs are too prohibitive for most TB patients who are from the poorest strata of the society. Only the very rich are thought to be going to private doctors. No estimates about the patients seeking care in the private sector are available.

## Argentina

During the assessment visit, an attempt was made to find out if indeed patients buy drugs from private pharmacies and if private laboratories get sputum samples for smear examination for TB. A telephonic survey was done of 9 pharmacies, 6 in Santa Fe and 3 in Cordoba, two cities in Argentina. They were asked if they had pyrazinamide and ethambutol available in their shops for immediate purchase. Rifampicin is used for conditions other than TB as well and was therefore not included. All the pharmacies in Santa Fe reported that they did not have stocks on-hand but they could get the drugs from the wholesalers in a very short time. When six wholesalers were contacted on phone, only one of them had stock on-hand and others said they could make the drugs available soon. None of the pharmacies reported to have come across a prescription of these drugs in the preceding month. All the laboratories reported that whenever they would get a sample of sputum smear, they send it to the central laboratory (belonging to the public sector) which provides a cost-free service and the quality is unquestionably good. PPs do sometimes request a supply of anti-TB drugs for those patients who are unwilling to go to the TB programme. A senior doctor associated with the programme admitted that they comply with such infrequent requests. The TB programme officials felt that Buenos Aires, the capital city that has a large illegal immigrant population from Paraguay and Uruguay could have among them, patients of TB seeking treatment in the private sector. They were willing to undertake a study to estimate the number of cases in the private sector by conducting sample surveys among doctors, pharmacies and laboratories in the private sector.

## Brazil

The TB programme in Brazil has freely provided anti-TB drugs for self-administration since its inception. Consequently private pharmacies rarely stock anti-TB drugs. Private physicians refer suspects and diagnosed cases to the programme. In Sao Paulo city, where TB care largely takes place in the public sector, an analysis of the place of first diagnosis and the extent of delay in diagnosis showed that in about 20% cases the diagnosis was first made in the private sector. The main problems were said to have been the diagnostic delays and convincing the faculty in medical colleges and universities to abide by the programme guidelines and lately following DOTS.

## Mexico

Although it is not perceived to be playing a role in providing TB care, the private sector in Mexico is large and private spending on health is about the same as the expenditure in the public health sector. Information on the extent of diagnosis and treatment of TB in the private sector is however limited. A review of death certificates in the state of Veracruz



showed that about 30 per cent of TB patients who died were treated in the private sector. Estimates from two major pharmaceutical suppliers indicate that they sell at least 15,000 complete short courses of chemotherapy a year. Many more than 15,000 patients should be receiving it given the likelihood of only a proportion of patients completing full course of treatment. Mexico also has a substantial proportion of patients under care of social security organizations that need to be co-opted into the DOTS strategy.

## Dominican Republic

As in other countries, there is uncertainty about the number of patients in the private sector in the Dominican Republic. The program manager who has also been a private practitioner has good links with the private sector. The NTP is being strengthened but almost all the chest physicians who treat most TB patients privately reported that earlier, they were reluctant to send patients to the NTP as the service was poor and there were perennial shortages of drugs. Currently they have started referring their non-affording patients to the TB programme.

Santo Domingo however had some interesting elements of public-private mix. It is important to understand such elements working within both the public and the private sides. These might prove useful as building blocks for a site-sensitive PPM strategy. A senior chest physician has responded positively to the distribution of blank treatment cards by program managers to PPs in order to help them maintain records of their TB patients. To the suspects and cases presenting to him, he explains the cost of TB management in private and informs them that the same drug treatment would be available free of charge at the public sector TB clinic. If the patient is willing to be treated under the programme, he fills the NTP treatment card and sends the patient to the programme reassuring him/her that s/he is welcome back if unsatisfied with the services offered by the programme. Another chest physician follows a middle path in managing those TB patients who cannot afford private care. She convinces the patient to remain under care of both the TB clinic and herself. The patient doesn't mind going to the TB clinic to collect drugs and at the same time reporting periodically to her/his favoured doctor for the reassurance that s/he is getting the correct treatment and is on way to cure. S/he doesn't mind paying a small fee to the practitioner either, for her time and advice. The physician asserted that the key to good collaboration is friendly relations and understanding between the programme manager and private physicians. She explained her reasons for continuing to treat TB patients. She pointed out the stigma attached to TB. She also said that many patients come to her from rural areas and long distances, and that they were unwilling to be treated at the TB clinics where they are unsure about the treatment and its outcome. Even those too poor to afford private care borrow money but insist on getting treated in private. Such patients, she admitted, tend to drop out when they exhaust their money and start feeling better.

## Peru

The NTP of Peru is considered one of the best performing in the world, with full coverage of the country and consistently high cure rates. The TB case notification rate has been declining since 1995. Since almost all cases are believed to be notified, the declining notification rate probably reflects a fall in underlying incidence, largely the result of good TB control following DOTS implementation in 1991. Structurally, the NTP comprises a specialised team at the national level in charge of policy, direction and co-ordination, and at least one person responsible for TB control in each of the regional health administrations.



At the peripheral administrative level, there are staff in charge of TB control, often together with other communicable disease control activities. At the service delivery level, TB activities are fully integrated within general health care in small hospitals, health centres ('centros de salud') and health posts. DOTS is therefore accessible to the entire population through well-run government services.

Most doctors work in both public and private sectors. Prior to DOTS implementation an estimated 50% of all the TB patients were being managed in private clinics. Over the years, there has been a steady flow of patients to the DOTS programme. A nation-wide programme of sustained quality, free and easy access to all, and its awareness among the common people appears to be the reasons for Peru's success. The NTP has apparently competed out the private sector from TB care services. Currently, as a home survey of the National Institute of Statistics and Data indicated, only 2% patients are treated in the private sector. These patients buy TB drugs from private pharmacies. Private practitioners referring their cases to the NTP often do so after making a diagnosis of TB. It is understandable why the NTP manager of Peru sees a rather limited role for private practitioners in controlling TB.

NTP does continue its efforts to coordinate with PPs. Educational sessions are in place. PPs are made aware of the NTP guidelines. Educational literature giving practice guidelines is also distributed to PPs through representatives of drug industry on their regular detailing visits

### **New York City, USA**

An important aspect of tackling the resurgence of TB in New York City has been the City TB Bureau's success in eliciting participation of the private sector – practitioners and laboratories. The New York example cannot be dismissed as inappropriate for resource-poor settings as many features of the private health sector cut across settings – rich and poor. Prior to a comprehensive intervention that began in 1992, about 90% of the TB cases in the City were being detected and managed in the private sector. One of the first steps taken was the upgrading and improvement of the clinical services offered by the Bureau's chest clinics located throughout the City. State-of-the-art and confidential services including DOT were provided free of cost to suspects and patients. The services also included treatment for latent infection to high-risk individuals, social services, HIV counselling and testing. By 1998, there was a four-fold rise in-patients receiving some or all of their care at the Bureau's chest clinics.

What did the Bureau do to involve private physicians? Having a mandatory notification policy by itself does not guarantee reporting of cases by private physicians. It was obligatory for laboratories also to report results of sputum smears and those of drug susceptibility testing. Effective licensing, and active monitoring of licensed laboratories ensures that all smear or culture positive cases are rapidly identified, reported and their care assessed. The Bureau's outreach workers have been very efficient; at times they have approached the managing physicians even before their TB patients reported back with results of laboratory tests.

The education of PPs on good TB management practices has received special attention. A broad range of educational material was circulated and made widely available. This included comprehensive guides on clinical policies and protocols, pocket folders, compact booklets giving ready access to frequently sought information, brochures providing a



catalogue of relevant services available to physicians, and single page fact sheets on various aspects of TB care. Relevance of information and ease of referencing were key considerations in producing the educational materials. A 24 hour Physician TB Hotline was also put in place. Outreach workers offered services to the practitioners, helping them, when required, in patient management. Among the services offered was DOT in their clinics and/or in patients' homes. Moreover, the Bureau offered PPs the use of laboratory services that included free, high quality, first-line and second-line drug susceptibility testing. All these efforts resulted in significant improvements in the TB management practices of PPs and the treatment outcomes of their patients.

There are obvious lessons in this example for resource poor settings too. If the private sector is known to manage a good number of TB patients, it has to be on the agenda of TB programme managers. The TB services offered by the programme have to be demonstrably good. PPs may be encouraged to visit and see for themselves the services provided. This might help initiate partnership. Efforts should be made on the lines of New York City TB Bureau to educate the physicians about their role, responsibilities, and more importantly, detail in concrete terms what the programme can offer to enable them follow correct procedures. In many TB programmes, it is not uncommon to see suspects referred by PPs being turned away by programme staff as non-TB on the basis of results of sputum examination alone. Such practices tend to widen the already existing rift. A simple practice of sending a letter thanking the practitioner for referral and outlining a plan of management would not cost much but go a long way in eliciting collaboration. Involvement of private laboratories would be another necessary and concurrent intervention.

It was the firm resolve to make private physicians do what they ought to that led to the evolution of the multi-pronged intervention strategy in New York City. And it has worked. Changing physician behaviour is a long process and programme personnel should be willing and prepared to sustain efforts without getting dispirited by initial slow or no response. Despite persistent progress and achievements, an outreach worker of the New York City TB Bureau remarked sustaining private sector involvement as a "continuing battle". Indeed controlling TB in poor countries is a continuing war.



## Regional Profile

This region has only a few high burden countries. DOTS programmes are rapidly expanding and efforts are on to co-opt all health care providers. Many countries have achieved total or near total coverage of DOTS. A regional workshop in 1996 was the first concrete step that guided the NTP managers in the region to seriously consider locally appropriate interventions for involving the private health sectors. The consequent activities in countries visited — Egypt, Syria, and Morocco in particular — have unique characteristics and valuable lessons for other countries.

## Egypt

Until 1996, the TB programme in Egypt was being managed through a network of chest facilities – clinics and hospitals – of the Ministry of Health and Population. In Egypt, chest physicians manage most pulmonary TB cases. There are 700 chest physicians in the country, working in 35 chest hospitals and 134 chest clinics. All chest physicians have dual practice, they work not only for the public sector hospitals and clinics and university hospitals but also have their own private practices.

Integration of vertical TB services into primary health care started along with the adoption of DOTS strategy in 1996. Conscious efforts were made to achieve inter-sectoral collaboration. A national board was established and among others, representatives of academic institutions and private sector were also invited to join in. Little collaboration existed before then between academia and the NTP. The NTP approached professors of chest diseases who were requested to be a part of planning and training NTP activities. These specialists were reluctant to collaborate with NTP during the days when rifampicin, preferred by private physicians was not used by the NTP in spite of its availability. The programme manager was able to convince them about NTP's adoption of short course chemotherapy as a part of the DOTS strategy. One of the leading chest physicians of the country also happens to be the Vice President of a major university. As a result of willing and capable leadership, competent staff from universities took an active interest in providing relevant training not only to the NTP managers but also to in-practice chest physicians. And that, according the national programme manager, proved to be a "turning point" for the NTP in tremendously improving its performance and credibility among people. The academics appear pleased with the collaboration with the NTP. The senior chest physician and his colleagues stated, " We are not only happy to collaborate but also proud to be a part of the NTP". They stressed their resolve to educate PPs and also hinted at improving the TB care component of the undergraduate medical curriculum.

Widespread inter-sectoral collaboration has had a positive impact on the NTP performance. Between 1994 and 1998, case notification of pulmonary TB almost doubled (4418 and 8931) and cure rates among new smear positives went up from 38% to 64%. University hospitals and the Health Insurance Organisation were never notifying their cases earlier. In 1999, these institutions reported 1196 out of a total of 12287 cases, accounting for about 10% of all cases. A pilot experiment in which 16 laboratories were asked to notify all smear-positive cases to the NTP demonstrated the feasibility of using laboratories to account for cases diagnosed by private doctors. Another study showed that PPs manage a very small proportion of cases in their own clinics. It will be worthwhile studying the precise contribution of private chest physicians to the overall improvement. The NTP of Egypt could well aim to make public-private mix a part of the national strategy for TB control and make it sustainable.



## Syria

The Syrian example provides an interesting contrast to Egypt. In Syria too, most physicians have dual practice — public and private. Studies have shown that most patients with chest symptoms report to one or more private doctors first – general practitioners and/or specialists –and there could be a time lag of anything between a month and a year before the patients end up in a TB centre. PPs' management practices have the usual inadequacies: x-ray diagnosis, varied regimens and lack of monitoring. Anti-TB drugs were available over the counter, even without a doctor's prescription.

Systematic efforts were made to involve PPs. In a National TB conference in 1993, where PPs were also invited to participate, the TB control strategy was discussed in detail including explanations of its basis, the results of surveys, and the recording and reporting systems. The aim was to provide a clear idea about the TB programme's functioning and its rationale. Subsequent to the National Conference, a National TB Control Committee was constituted under the leadership of the Health Minister. The members, among others, included representatives of the medical association (Syndicate). The committee approved standard procedures for TB management with a view to helping PPs follow them in their practice. In the ensuing months local meetings and workshops were arranged to strengthen relationship with PPs, often with a discouraging response.

In view of continuing inappropriate practices among PPs, a second step was taken. The National Committee sent a letter to the Medical Syndicate inviting it to join in the preparation of an executive document in collaboration with other members of the committee. The document was to propose a trial to restrict the prescribing authority for anti-TB drugs to specialised doctors only. Due to differences over several issues, the executive document did not see the light of the day.

Following a regional meeting on involvement of private sector in TB control in 1996, it was decided to distribute the newly prepared NTP manual to 80 PPs in Damascus and see its effect on their management practices. A meeting was organised for this purpose. The letter of invitation was signed personally by the health minister and delivered by hand to each practitioner along with a copy of the manual. A summary of the manual was also attached for easy reference. The response to the health minister's personal invitation was disappointing. Only 15 out of the 80 invitees turned up. In early 1998, after considering the difficulties in eliciting private doctors' co-operation, a ministerial decree was issued restricting the availability of anti-TB drugs exclusively to the NTP. The impact of the decree remains to be evaluated.

## Lebanon

For reasons not fully understood, Isoniazid and Pyrazinamide are not available in private pharmacies in Lebanon. When contacted, some of the pharmacists indicated that stocking anti-TB drugs is not remunerative for pharmacists. Private chest physicians who manage TB patients therefore have to send their TB patients to the NTP for treatment. In a group discussion with members of the chest physicians' association, the practitioners expressed their willingness to extend all possible co-operation to the NTP for effective TB control.



## Morocco

Morocco has an excellent DOTS programme. The entire population of the country is covered under the programme. Case notification is 100 per cent. Nearly 90 per cent of all new sputum positives are detected. Over 80 per cent of the new sputum positive cases and over 70 per cent of re-treatment cases are successfully treated. The TB programme has sought to understand the management practices in the private sector, through two successive studies in Casablanca and Tangier, in the years 1995 and 1997. About 30% of all the PPs in the country are located in Casablanca.

Data from 1994 to 1999 revealed that about a third of all TB cases and about 40% of infectious TB cases were detected in the private sector (Table M-1). About 20% of the suspects presenting to PPs – GPs and chest specialists – were referred straightway by them to the NTP without any assessment. Among the remaining suspects assessed by the GPs, 12% were diagnosed as pulmonary TB. In making the diagnosis of TB, 72% of the GPs used both X-ray and sputum smear examination. And interestingly the GPs sent 97 per cent of all the cases they diagnosed to the NTP for treatment. There was an exceptional GP who was treating the cases he diagnosed. The important observation here is that while GPs do make a diagnosis of TB, they generally do not treat them in their clinics. The chest physicians also referred about 20% of their suspects to the NTP for diagnosis and treatment. In making a diagnosis, all the chest physicians used both X-ray and sputum examination. The chest physicians referred 36% of the 500 cases they diagnosed to the NTP for treatment and treated the rest (320) by themselves. Eighty two per cent of the cases diagnosed by chest physicians were sputum positive. The drug regimens used were largely appropriate without major deviations from recommended practice.

**Table M-1: Case Detection in Public and Private Sector in Casablanca (1994 – 1999)**

FORM OF TB	TOTAL	PRIVATE SECTOR	PUBLIC SECTOR
Pulmonary TB, Sputum + ve.	3099 (100%)	38.6%	61.4%
Pulmonary TB, Sputum - ve.	732 (100%)	29.9%	70.1%
Pulmonary TB, subtotal	3831 (100%)	36.9%	63.1%
Pleural Effusion	492 (100%)	9.0%	91.0%
Extrapulmonary TB	2368 (100%)	33.5%	66.5%
<b>TOTAL</b>	<b>6691 (100%)</b>	<b>33,6%</b>	<b>66.4%</b>

The remarkable observation was that all the PPs had maintained complete records of their patients; records that were good enough to perform a cohort analysis. The results for both the years, 1995 and 1997, were revealing. The PPs were doing a reasonably good job. The defaulter rate for both the years was less than 15%. Another 15% of the patients were unable to continue treatment in private, the practitioners were prudent in transferring such patients to the NTP for further management. The practice of using sputum smears to evaluate treatment is not widely prevalent among physicians. As a result the measured cure rates were relatively low but around 70% of their patients had completed the treatment



successfully. Including the patients transferred to the NTP, the private physicians had appropriately managed over 80 per cent of their patients (Table M-2). In terms of success rates the Moroccan practitioners fare better than their counterparts in Mumbai 1996: 59% (mostly GPs though), New York 1995: 65% (post intervention), and Korea 63% (nation wide study). Equally important, the practitioners are following correct diagnostic and treatment procedures. The program manager of Morocco is not unduly concerned about the private sector. He pointed out that cure rates among PPs' patients improved in '97 compared to '95 (32% as against 28%). Further, the process of conducting such studies and sharing findings with them was likely to improve their practices.

**Table M-2: Cohort Analysis of Smear +ve TB Patients in Private Sector in Casablanca & Tanger**

Year	Total cases	Cure	Completion	Default	Failure	Death	Transfer
Chest Physicians 1995	281 (100%)	79 (28.1%)	108 (38.4%)	41 (14.6%)	6 (2.2%)	2 (0.7%)	45 (16.0%)
Chest physicians 1997	262 (100%)	84 (32.1%)	98 (37.4%)	39 (14.9%)	3 (1.1%)	2 (0.8%)	36 (14.0%)
GP1997	4 (100%)	0	3 (75.0%)	0	0	0	1 (25.0%)

Why are the PPs of Morocco delivering better TB care than their counterparts in some other countries? This is all the more striking in the absence of any special efforts on part of the NTP of Morocco. The answer possibly rests in the basic medical and postgraduate training the Moroccan doctors receive. In the undergraduate training, 25 hours are devoted to the teaching of tuberculosis and its management. The main messages for undergraduates are: to suspect TB early enough in your clinics, diagnose it properly but do not treat TB patients yourself instead send them to the NTP. That the message gets conveyed very effectively is borne out by the fact that all GPs barring one exception referred their TB suspects and diagnosed cases to the NTP. Moreover, it is mandatory for all the postgraduates in chest speciality to spend a specified time working within the NTP. The practitioners appear to be fully cognisant of the public health aspects of TB and their importance.



## Regional Profile

Russia with its special characteristics is the only high burden country in this region. Although the private health sector is indeed present and expanding in most countries, TB care is still the domain of the public sector. The two countries visited – Czech Republic and the Netherlands – have TB control programmes with some elements that have potential application in poor countries. The compliant private physicians of Czech republic and time-tested public-private consensus building approach used for TB control and beyond in the Netherlands are particularly important as the strategies used are not resource intensive and adaptable to poor countries.

## The Czech Republic

A low prevalence country with around 1800 TB patients, the Czech Republic is divided into 15 regions and 40 districts. Chest physicians – public and private manage TB cases; in fact there is a great reluctance on part of internal medicine specialists to treat TB while they do manage other respiratory conditions. Each district has 2 to 4 chest physicians. Each region has a co-ordinator from the Hygiene Department to look after TB control (among other duties) Regional coordinators liaise with private physicians in their regions.

Currently, about half of the entire outpatient care is in the private sector. However, all laboratories providing sputum microscopy are in the public sector. Doctors have been accustomed to much tighter control and regulations on their public health responsibilities since the communist era. They do dutifully report TB cases. It is mandatory for laboratories to notify too; if any physician fails to notify, the regional co-ordinator can spot default on part of a physician and hint at promptness in notification. The notification form is a detailed 2-page document; there is a counter-notification form too which the treating physicians are supposed to complete and submit a year after a patient is diagnosed. These are checked thoroughly for completeness by regional coordinators, if necessary by sending them back to doctors for any missing details.

The TB surveillance unit regularly and frequently interacts with the private physicians and updates them on TB management. This was obvious from the fact that the chest physician of the TB surveillance unit had given presentations on TB to private chest physicians on three different occasions in the preceding month.

The two private chest physicians met with in Prague expressed no problems whatsoever in working with the public sector. One of them had 12 TB cases under treatment and the other 40. It must be noted that in the Czech Republic, all sputum positive patients are admitted to TB sanatoria for an initial 2 months and sent back to their physicians for the continuation phase. DOT is mostly done for the homeless and illegal immigrants. These patients, according to both private physicians, pose constant problems.

Lessons: Moving from tight regulatory mechanisms to less tight ones is easy as has happened with the private chest physicians in the country. And yet the TB surveillance unit feel the need to regularly interact with private physicians and indeed do so.



## The Netherlands

In early 1900, TB prevalence in the Netherlands was as high as 250 cases per 100,000 – more than that in several high burden countries today. The felt need to tackle the problem of TB was so great that even before chemotherapy for TB was available the country had both public and private funding and there NTP a good network of chest facilities all over the country. The network was maintained, strengthened and has been used even more effectively since drug treatment for TB was introduced. Public funds were made available to establish non-governmental provincial TB associations. These associations effectively networked all practising physicians and offered leadership in setting standards of care.

In 1950, a high level “Committee for Practical TB Care” was constituted and given the responsibility of development of protocols and guidelines for TB care. This committee had representatives from all the players associated with provision of preventive and curative care for TB. The Netherlands Anti-TB Association (KNCV) which has been effectively spearheading TB control activities within the country since early 1900 provided the secretariat for this. The apex committee is now called National TB Policy Committee. Its members include all TB specialists in the country, representatives of public health nurses, chest physicians, microbiologists, and experts from the central reference laboratory. The committee meets regularly, five times a year. The secretariat, as mentioned above, is provided by the KNCV. The chairman, appointed by KNCV is usually a respected TB doctor.

TB care is decentralised and integrated within Municipal Health Services. There are 60 municipalities of which 45 have TB clinics. Public-private partnership TB control has deep roots in the country. Both physicians and laboratories notify TB cases to the TB clinics. Once diagnosed, TB cases are almost always dually managed. The physicians take care of clinical aspects and drug treatment while public health nurses handle motivation, education, defaulter retrieval and management of social problems faced by patients. Spearheaded by KNCV, the key elements of successful public-private partnership in the Netherlands appear to be decentralization, transparency, mutual respect, working through consensus, private provider involvement at all levels including the highest level policy making, continuing dialogue, and quality assurance. There are well-defined institutional mechanisms in place to ensure smooth functioning of the partnership. Clearly, these are not resource intensive and may well be adapted by many developing countries.

Another noteworthy element is awareness of the problem among the general public. As a TB specialist pointed out, his office has to answer many calls from lay people inquisitive about protecting themselves from contracting TB. At times, this has helped in the notification of an occasional case that might have remained unnotified. As in most rich countries, the problem cases requiring attention and support include homeless, immigrants and drug users.



## Regional Profile

Some of the highest burden countries with the largest private health sectors are in this region. India and Indonesia are the leading examples. They pose a great challenge to the development of meaningful collaboration with the private health sector for TB control. NTPs in the countries visited – Thailand, Indonesia and India – have a long way to go before strong DOTS programmes are in place nation-wide. The private health sector is concentrated in urban areas, has distinct characteristics, and also has a significant rural presence. At the same time, promising schemes to involve PPs are emerging from the ground in some of the locations.

## Indonesia

The 1995 Indonesian National Socio-Economic Survey found that 39% of the population consult PPs in the event of an illness. There are about 40,000 qualified doctors in Indonesia. Most doctors are employed by the government but also have private practices in the evenings and are concentrated in cities and towns. While GPs have a dominant share of private outpatient care in urban areas, paramedics play an important role in smaller towns and villages.

A survey in 1995 found that a GP has, on an average, 5 patients of TB in a year. The specialists treat much higher numbers. Patients are known to shop around for TB treatment. A survey of patients drawn from a public hospital showed that 42% of TB patients had been diagnosed by a private GP or a specialist. A World Bank Mission report of 1998 states it is reasonable to expect that more than half the cases are being detected in the private sector.

What steps has the NTP undertaken to involve PPs? The National TB Control Committee has prepared standard guidelines on TB diagnosis and treatment. This Committee has representatives from professional bodies of physicians, pulmonologists, paediatricians and nurses. DOTS is also being integrated into medical curricula. A project involving PPs has been started in Central Sulawesi with support of The Netherlands TB Association (KNCV). The approach has been to hold discussions and seminars and orient private doctors to the DOTS strategy. The NTP showed willingness to offer free anti-TB drugs for patients of PPs provided the doctors follow diagnostic and treatment guidelines of the programme. A general observation has been that doctors prefer to refer cases to the programme after diagnosis rather than taking on the responsibility of managing patients according to programme guidelines. What proportion of cases are referred and what proportion are managed in private clinics by the doctors is not known.

Hospitals, both public and private, play a significant role in providing TB care in Indonesia. KNCV undertook a situational analysis before trying to involve hospitals in TB control in Yogyakarta. This town with a population of 3 million has an expected caseload of around 6000 new cases a year of which 3000 are sputum smear positive. However, yearly only 500 cases have been diagnosed in health centres, a large proportion of patients apparently seeking care at hospitals. Hospitals diagnose a large proportion of cases but in 1998, only 12% of patients diagnosed in hospitals were given a sputum test. Patient notification is not done by hospitals. Different kinds of treatment regimens are used, drug treatment is not observed, and there are no defaulter retrieval mechanisms in place.



A project to make hospitals a part of the national efforts to control TB was started in Yogyakarta in 1999. It began with training of trainers drawn from 9 major hospitals. The trainers are expected to train staff from 20 more hospitals over a period of two years. The focus has been on establishing referral mechanisms, developing communication and co-ordination among health centres and hospitals and organizing DOT and defaulter tracing in hospital settings.

The magnitude of the problem of the private sector in Jakarta is much greater with its population of 14 million. The President of the Indonesian Medical Association presented interesting ideas on involvement of private doctors in the DOTS strategy. Drawing from the example of the national family planning programme, he proposed training the all practitioners in the DOTS strategy and management guidelines. He suggested the practitioners should then be given logos, a coloured triangle for instance, designating clinics of practitioners who agree to follow national guidelines. If the practitioners are going to manage their TB patients on a fee for service basis, they should not be given free drugs for their patients. Only those practitioners who agree to provide free services to TB patients should be given free drugs and offered a triangle of a different colour. If this information is disseminated widely among people, he felt that it would help the patients not only in identifying clinics designated by the NTP, but also in knowing if the practitioner would charge a fee for care or not. He wondered why the field workers of the national family planning programme who visit practitioners can not be give the task of collecting patient notification forms for the TB programme. With some training and orientation, these workers might even be deployed for defaulter tracing, he proposed. While the Indonesian NTP needs much strengthening, there is great enthusiasm among the highest level officials to identify and implement ways to involve private sector in TB control.

## India

India has a large public health infrastructure. The private health sector's presence was largely restricted to cities in the past; it has now expanded to many rural areas as well. About 80% of all the qualified doctors, 75% of the dispensaries, 60% of the hospitals, and 75% of the country's health expenditure are all in the private sector.

Historically, there has been little collaboration between PPs and any of the national health programmes with the exception, to some extent, of immunisations and family planning services. A mutual distrust is apparent between the two sides. For stigmatised diseases like TB, the preference for the private sector is even greater as confidentiality of diagnosis is always a major consideration. It is generally believed that a majority of TB patients first seek help of a PP, over a half of all cases are diagnosed by them and a substantial proportion are managed by them as well.

Through the RNTCP, TB control is back on the priority public health agenda. DOTS implementation has gathered a momentum. A population of more than 240 million is now covered although a proportion of patients in the population covered is likely to be outside the DOTS programme. Some efforts to involve PPs have met with variable success. In some districts, there is reported to be a good coordination between local medical associations and the DOTS programme. There are reports of a drop in the sale of anti-TB drugs in the private sector, possibly indicating a flow of patients from the private sector to the RNTCP; however, definitive data are not available.



PPs in India have different training backgrounds. These include allopathy (Western medicine), Ayurveda, Homeopathy, Unani and Siddha. However, most doctors trained in indigenous systems also practice Western medicine. Most doctors manage TB patients and in most places doctors tend to prescribe rather than dispense anti-TB drugs. Studies at different urban and rural locations within the country have shown that PPs generally diagnose TB on the basis of a chest X-ray rather than by sputum examination, prescribe non-standard drug regimens, have no means to monitor adherence to treatment by patients and do not maintain any patient records. Medical college training on tuberculosis is often out of date, and continuing medical education programmes in many DOTS areas have often been poorly attended. In addition, there are factors such as the influence of promotional efforts by drug companies, competition and malpractice within the private sector and a total absence of any kind of regulatory mechanisms to prevent practitioners from doing what they ought not do.

Numerous private laboratories exist in cities and towns where qualified pathologists often have to compete with laboratories run by laboratory technicians. In the absence of any external quality control, sputum microscopy for TB is often of a suspect quality. Private drug stores and pharmacies are present in large numbers in cities and towns and also serve customers from rural areas. In most places, anti-TB drugs are available over the counter and without a prescription. Dozens of pharmaceutical companies market anti-TB drugs and scores of anti-TB drug formulations are available. A recent development of potentially disastrous consequences has been the availability of intermittent therapy packs for use by PPs in a few cities.

There is currently no formal policy on involvement of the private sector. In some local areas, there have been formal and informal innovations in improving interactions. Generally, larger private hospitals function as microscopy-cum-DOT centres and private practitioners do refer and/or serve as DPT providers. Two PPM DOTS (Public-Private Mix) projects one in Hyderabad and another in Ahmedabad are supported partly by WHO, the first focusing on PPs and the second on NGO involvement. The Hyderabad project based at a trust hospital involves private practitioners and small private hospitals (often called nursing homes) for patient referral and as centres for DOT by on-duty hospital nurses. The first week of DOT is given at the trust hospital, and it is emphasised that all drugs are free. The project is running very well even on scaling up from 100,000 population to 500,000 confirming its viability and potential replicability. Table I-1 summarises the project performance. Attempts to replicate this model are just beginning.

**Table I-1: Outcomes of Treatment at PPM DOTS Project in Hyderabad, India (1995-1999)**

Type of TB	No. put on treat.	Cured (%)	Completed treatment (%)	Died	Failed	Defaulted
Pulmonary TB (Sp + ve)	161	143(89)	1 (1)	3	6	8
Pulmonary TB (Sp - ve)**	67	—	61 (91)	1	1	3
New Extra-pulmonary	107	—	103(96)	4	0	0
Relapsed (Sp + ve)	13	9(69)	0(0)	2	1	1
Other re-treatment	52	39(75)	1(2)	6	2	4

\*\* One patient of this category was transferred out.

Practical approaches to involve PPs appear to be evolving more from the ground rather than from formal pre-designed projects. For example, DOTS programmes in three places in Gujarat state: Ahmedabad, Manasa, and Jamnagar have shown a way to encourage meaningful involvement of PPs. When a patient is diagnosed with TB, he is asked if he wishes to have DOT at the health centre or at a private doctor's clinic (referring doctor or any doctor in his neighbourhood). If he opts for his own or any other private practitioner, he is advised to go and ask that practitioner about his willingness to supervise. If the practitioner is willing, the treatment supervisor visits the private practitioner and explains the recommended management procedures, including completing a treatment card. If the practitioner agrees to supervise treatment, maintain records, and either act on or inform about default, he is provided with a duplicate copy of the patient's treatment card along with the patient's treatment box. With about 50 participating practitioners in Ahmedabad and over 80 in Jamnagar, the collaboration seemed to be progressing without problems. The obvious weakness was some mistakes on part of the PPs more as a result of lack of training and understanding than due to negligence. No incentives are being offered to the participating practitioners.

The Delhi Medical Association, with assistance from the central and the local state government has planned a project to try out different models of involvement of their members within the DOTS programmes, ranging from referral of cases to the implementation of most of the components of DOTS. The outcomes should be informative. It is important to appreciate that if the expectations are reasonable and clear, reaching out to PPs should be a reasonably straightforward exercise. If the practitioner is willing to orient himself or herself, diagnose and categorise patients on the basis of recommended protocol, is able to supervise treatment and report and/or track default and maintain treatment records, s/he should be a welcome partner of a DOTS programme. Only the motivated practitioners would agree to abide by all those conditions; the hesitant or the unconcerned ones are likely to adopt a watch and wait attitude. For widespread involvement of PPs, the local DOTS programme has to be reasonably good and should have (spare) capacity to liaise with practitioners, to orient them, to offer them help, and to supervise their participation.



## Thailand

Thailand is one of the 22 identified high burden countries. It has a well-developed public health infrastructure in urban as well as in rural areas. Health services utilisation surveys have been undertaken periodically by both the Ministry of Public Health and by Mahidol University. The 1990 MOPH survey showed that 16% of the population utilised private health facilities. Mahidol University surveys have found that about 38% of the urban and 16% of the rural population utilise the private health sector. This sector has grown rapidly in recent years and their utilisation all over is expected to be much higher today. In tuberculosis control, it is commonly assumed that the private sector does not play a prominent role, certainly in rural areas. PPs have a prominent presence in Bangkok city but their precise contribution to TB care is not known.

All government doctors are allowed to practise privately after office hours. It is mandatory to report all sputum smear positive cases to the TB Division but this is neither followed nor strictly enforced. PPs frequently use regimens other than those recommended by the NTP and some are clearly inadequate like, for instance, isoniazid and rifampicin for 12 months. Pharmacies sell anti-TB drugs with or without doctors' prescriptions. These include single drugs as well as combination preparations of varying dosages and duration.

The National anti-TB Association conducts continuing education programmes on TB for practitioners, public and private. Discussions with private physicians and hospitals in Bangkok showed clear willingness on part of private physicians to cooperate with the public sector TB programme. The Deputy Governor of the Bangkok Metropolitan Authority reciprocated this. Possibilities of collaboration include provision of free drugs by the NTP and the PPs maintaining records and reports for use by the NTP.

The Health Services Research Institute based within the Ministry of Health has expressed interest in undertaking research in TB. It was felt that as a first step it would be useful to determine the proportion of TB patients being managed in the private sector in the Bangkok Metropolitan Area. Some funding agencies have showed willingness to support such studies.



### Regional Profile

The countries visited included South Korea, Vietnam and the Philippines. Unlike the Philippines, Korea and Vietnam have special characteristics not shared by many high burden countries. The NTP of Korea is well aware of the need to improve case management practices of PPs. It is also aware of possible mechanisms to achieve this objective. The private sector in Vietnam is restricted largely to the Ho Chi Minh City. Some interesting PPM initiatives are in place there. The Philippines has a variety of DOTS projects set up in the private sector. These evolving models can offer many lessons for other countries trying to involve private sector in TB control. However, operational research and systematic process documentation on PPM is lacking.

### Republic of Korea

South Korea is one of the rare examples where precise information is available on distribution of cases in the public and private sectors. Regular studies have been conducted on PPs' TB management practices. It also provides evidence that doing periodic studies and sharing the findings with PPs can, by itself, have a positive impact on their management practices.

With a per capita GNP of USD 6832 in 1998, South Korea is developing into a high-income economy. There is universal coverage of health insurance. Patients have a choice of public and PPs. TB patients get free services including drugs in public clinics spread throughout the country. Those preferring private care have to pay 30% of consultation fees, the rest being borne by insurance. Private sector patients also have to pay for drugs. Yet, private health care is relatively inexpensive as there are ceilings on what practitioners can charge and the prices at which drugs are sold in the market.

South Korea has a well performing NTP with a cure rate of about 80% among patients treated by the programme. It is known that about 45% of the patients are taken care of by the private sector; GPs manage about 25% and chest physicians manage the other 20%. Since 1987, several studies have been done on PPs. The first large study of over one thousand patients showed, among other findings, that 42% of the patients under treatment in the private sector interrupted their treatment prematurely. The study recommended that a national policy be urgently made to improve patient management "by examining and complementing the strengths and weaknesses of private and public health sectors". The paper recommended that this could be done by constituting a committee comprising government authorities, and experts from TB control, clinical medicine, public health and medical insurance. The second nation wide sample survey examined the knowledge, attitude and practices in TB management of private general practitioners. The main findings were that half of the GPs did not consider sputum examination essential in diagnosis and 75% did not think it was necessary in monitoring treatment response. Seventy three per cent of the GPs did not use the treatment regimen recommended by the programme and regimens prescribed by 16% were unacceptably bad. The positive finding was that 80 per cent doctors sought to have more knowledge about TB management. In response to GPs' expressed desire for simple notification forms and procedures, the TB prevention act was revised that year and a very simple reporting form and procedure was established.



Two studies on retrospective cohort analysis of patients reporting to private chest clinics were done in 1987 and 1993 and the results compared. The treatment outcomes of patients in private chest clinics improved significantly during those 6 years. Overall success rates rose from 49% in 1987 to 62% in 1993 and failure and default rates fell from 9% to 4.5% and 34% to 27% respectively. The only intervention was sharing of results of earlier surveys during routine conferences.

The experience of many developing countries is that patients prefer PPs not necessarily because the services offered by them are always of good quality. It is often because the public sector services are unacceptably bad or not accessible. If and when reasonable services are available on a sustained basis, patients often turn from private to the public sector. The performance of public sector health centres in Korea has been much better than that of private chest clinics in both 1987 and 1993. In 1987, cure rates among patients of health centres were 74% compared to 43% among those of private chest clinics and in 1993, 80% and 52% respectively. Why is it then that as much as half of all the patients continue to seek care in private? Of course the patients are unlikely to be driven away from the private sector by low cure rates alone unless the private sector under-performs consistently. As countries become wealthier, people's aspirations about medical care rise and they don't mind spending more on health care. And if government regulations in the form of price ceilings make private care accessible to a majority, people are likely to avail it giving greater consideration to convenience, waiting times, number of visits, provider behaviour, confidentiality etc. In Korea, the average fee for GP consultation is about a thousand Won equivalent to less than one US Dollar. The drugs are inexpensive too. Even the low-income groups can afford private care. And since doctors do not earn much, they may also be reluctant to lose their patients to the better performing public sector. This is in contrast with most Latin American countries where private care and drug prices are beyond the reach of the poor who have little choice other than to accept free care available in the public sector. Asked about offering incentives to PPs to directing their patients to the NTP, a senior TB expert said, if the incentive is modest, PPs might not be interested; if substantial, the programme might not be able to afford it.

What do PPs in Korea feel about TB management in their clinics? A private chest specialist who is also a university professor said TB is not on the top of the minds of Korean doctors. He said he sees just 10 or so TB patients in a month, GPs might be coming across 10 in a year. He felt that TB care in private could be improved. Even in the university department, he said, it takes very long to get laboratory results and many times patients just do not turn up to collect even initial reports. The professor was investigating ways to develop an efficient system for receiving and dispatch of laboratory reports of TB patients.

What then could be the approach to improve PPs' TB management practices in Korea. The experts at the Korean TB Institute are well aware of the problem and also know a possible practical solution: getting the health insurance Organization on board. Today, PPs are assured of being paid by the insurance Organization for the services they provide to TB patients. If the insurance Organization imposed a precondition that only those claims where recommended practices are being followed will be honoured, it might have a significant impact on the current situation of the patients being managed in the private sector. The TB institute would be willing to examine claims and advise the insurance Organization about their appropriateness.



## Vietnam

Among low-income countries, Vietnam has one of the best performing NTPs. The DOTS programme was introduced in phases beginning in 1989. Currently, it achieves about 90% case detection and 70% cure rate. PPs are present mainly in the cities. A series of studies have been undertaken by the Nordic School of Public health on the patients and providers of TB care in urban and rural districts of Ho Chi Minh City in Southern Vietnam. Hanoi, the capital city, located in the north also has numerous private clinics.

HCMC has about 3000 private physicians. Most physicians work in the public health services but also have private practices outside working hours. In a retrospective study of patients reporting to the NTP in HCMC, about one half had initially opted for a private health care provider in the event of an illness. Utilisation of private care among TB patients or symptomatic was similar before the diagnosis of TB was made. Treatment of TB is offered free by the NTP provided a patient has an official permanent address within HCMC and agrees to attend the district TB unit daily for initial two months. This forces patients migrating into the city for a livelihood to opt for PPs. Other reasons cited for using PPs include better accessibility, patients' desire for privacy, and a perception that the NTP has complicated diagnostic and treatment procedures.

PPs' management practices do not often adhere to NTP guidelines. Overemphasis on X-ray for diagnosis, use of diverse drug regimens, and absence of notification or maintenance of patient records are some of the common features. Chest physicians tend to manage many of the TB cases in the private health sector. GPs tend to refer suspects and diagnosed patients but also treat some cases although the magnitude of their involvement is not known. This was apparent from the findings of a survey of PPs — all GPs and two chest physicians — undertaken by a district TB unit within HCMC. None of the GPs had any TB patient on treatment under their care. The two chest physicians gave the names of all patients under their treatment. One of them had 18 in the preceding 3 months. In response to a question asking them if they would collaborate with NTP, 38% said they would, 3% were reluctant and interestingly, 59% would do so if the government issued a directive to that effect.

It is reasonable to expect that the chest physicians well versed in TB management and running an excellent programme should be managing their patients in private as well if not better. What these physicians reported in a spot survey was contrary to this expectation. In a meeting to discuss private practitioner involvement in NTP, 24 physicians with “dual practice”, working with the NTP and also having their own private practices, were requested to respond in confidence to questions on their TB management practices in their own private clinics. Surprising enough, 71% of them did not use sputum microscopy for diagnosis. None ever notified a case to the NTP. Only 36% employed a recommended drug regimen in treating their private patients, 59% said they maintained records but only 38% kept records that were good enough to determine if and when a TB patient defaulted. As few as 14% would advise sputum microscopy to determine cure.

These results were immediately shared with the participating physicians. In the discussion that followed, reasons for the deviant practices were explored. Many physicians presumed that they were only ones deviating from recommended practice and were surprised to hear the findings. They however could not elucidate why they deviated from recommended practice. The sharing of survey results proved useful in making the practitioners reflect on



their case management practices. They suggested concrete steps to be taken by the NTP and how they as PPs could contribute.

Specifically, the private physicians expected the NTP to offer an orientation and training programme for private physicians. They wanted the NTP to prepare, print and supply stationary (reporting and referral forms, and treatment cards) adapted for use in private practice. They wanted the NTP to offer free quality microscopy services. The NTP workers were expected to pay periodic visits to all private clinics to supply/pick up the forms. The private physicians also desired the same financial incentives as currently given to health workers for every case detected and cured. Finally they sought recognition in some form for their participation in NTP. In return, the practitioners would agree to participate in the training, utilise the NTP microscopy services for sputum-based diagnosis and case-monitoring, use the recommended regimens, undertake frequent supervision of patients if DOT is not feasible, keep patient records in the format provided, and report defaults and final treatment outcomes. The NTP manager saw little problem in offering the financial incentives to PPs if they did their job as desired. An intervention project is now being undertaken in HCM city, with research input from the Nordic School of Public Health.

## The Philippines

The Philippines has a high burden of tuberculosis. A nation-wide survey conducted in 1997 showed a prevalence of active pulmonary TB to be 42/1000. The prevalence of culture-positive and smear-positive cases was 8.1 and 3.1 per 1000 respectively. It was similar in urban and rural areas.

The Philippines has a large and well-developed private health sector comprising several thousand solo practitioners and over a thousand hospitals of varying sizes. The preference for PPs among people for routine care and for TB symptoms is well known. The DOTS programme was launched in 1997 and had expanded to cover almost 17% of the population by 1998. Awareness of DOTS among PPs is low. Their TB management practices do not conform to recommended practice.

Interestingly, a private infectious disease specialist physician in Manila at a TB clinic within a university hospital (University of Santo Tomas) first started DOT for TB patients. This was before the NTP adopted DOTS as the official strategy. Since then, several different private sector initiatives for DOTS have emerged in Manila. Taking a cue from the private DOTS project, another modern and large private hospital – Makati Medical Centre – started a DOTS programme in early 1999. Notably, the second patient registered for DOT was a local congressman. The Makati Medical Centre provides the clinic space for the DOTS programme and supports the medical staff of the clinic – a physician and two public health nurses. The Tropical Disease Foundation, a research Organization based in the hospital provides laboratory services. The NTP supplies TB drugs and the local government (Barangay) provides support in community mobilisation.

A third private sector DOTS project has been recently started by a drug company (United laboratories). The project targets well-off patients of PPs averse to treatment at NTP clinics. The project was started on the advice and under guidance of the infectious disease specialist who started the first DOT clinic in Manila. It is a part of a modern general health care clinic with all diagnostic facilities. There is a well-equipped DOT room that is staffed by two nurses and has a computer, educational material, and treatment boxes. Another public



health worker with a motorcycle is there for defaulter tracing. All records are computerised; a box of TB drugs for the entire course of treatment is offered at a cost that is about 30% less than the retail market price. PPs in the vicinity were provided orientation and are expected to refer diagnosed patients to the DOT clinic for treatment.

All the above projects are recent and their effectiveness will be known only after some time. It is a promising sign that the private sector has taken the initiative in setting up models and sought the support of the NTP. A development of potential importance is the Philippines government's recent scheme called PHILHEALTH. This is a medical insurance system that is developing its first package of outpatient care reimbursement and has chosen TB as a testing ground. The scheme would reimburse private physicians for TB care provided they follow recommended guidelines. This is yet to take off the ground. In a fourth model in Malabon area, attempts are under way to train private physicians and link them to the local NTP clinics.

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