

ADDRESSING POVERTY IN TB CONTROL

OPTIONS FOR NATIONAL
TB CONTROL PROGRAMMES

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PREFACE

Throughout the world, poor people and those from disadvantaged social groups suffer more illness and die sooner than the more privileged. Poor and socially excluded people face greater exposure to many health threats, and when they fall sick they are much less likely to receive adequate care. Social factors including the effects of poverty account for the bulk of the global burden of disease and death and for the largest share of health inequalities between and within countries. In high-income countries, the average estimated incidence of tuberculosis (TB) is 10/100 000; in low-income countries it is 20 times higher.

Today's great health challenge is equity: accelerating health progress in poor and socially excluded groups. This requires intensifying action on the diseases that most heavily affect poor communities while simultaneously mobilizing knowledge, resources and political commitment to address the social determinants of health. This coordinated action is vital if countries are to achieve the health-related Millennium Development Goals (MDGs). The MDGs have underlined the interdependence of efforts to control disease epidemics and to attack poverty, hunger, unsafe housing, gender discrimination and inadequate access to education.

To do our job properly, those working in medicine and public health must understand the social context of health interventions and the social and economic forces that shape people's chances for well-being. This is why the World Health Organization (WHO) has begun a process of intensified focus on the social determinants of health and why the work of the Global Partnership to Stop TB to address poverty is especially important. The partnership has been a pathfinder in highlighting the links between TB and poverty and putting this issue on the TB control agenda. The links themselves are not surprising. Higher TB rates among impoverished minorities and marginalized groups have been observed for almost two centuries. The partnership aims to turn this knowledge into action, taking into account the new forms in which the cycle of poverty, social exclusion and TB infection may be expressed today.

Leadership in the battle against TB rests with governments, specifically with national TB control programmes within ministries of health. This document should help national officials design and scale up services that reach more patients across all communities and proactively seek to serve the most disadvantaged. Governments and partners will find guidance in this document on the best means to reduce barriers to health care and increase early and effective treatment for the poorest and most vulnerable communities.

Explicitly addressing poverty in the context of TB control is essential to meet the needs of three overlapping constituencies: individual patients, poor and marginalized communities and countries threatened by the disease. WHO joins with its partners to offer this document, which we hope will accelerate progress towards the equitable provision of TB services to all in need and advance the connection between key disease control programmes and strategies to address the social determinants of health.



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SUMMARY

WHO's commitment to the promotion of equity and pro-poor policies in its disease prevention and control activities is based on the recognition of poverty as a major barrier to health and health care. In the case of TB, the links between poverty and disease burden have been documented for many years. This document addresses the integration of pro-poor measures in TB control programmes and offers guidance for national TB control programmes on the practical issues involved and options for action. The following six principal steps are recommended.

STEP 1. Identify the poor and vulnerable groups in the country/region served by the national TB control programme

- Assess the poor and vulnerable groups who face barriers to accessing TB services, which may include: those in absolute economic poverty; those disadvantaged by gender-related factors; marginalized ethnic groups; people living in remote locations; the urban poor; other special situations and groups.
- Establish a profile of poor and vulnerable groups and their locations in the country/region using: government or other data on prevalence and distribution of poverty and vulnerable populations; any government documents on poverty reduction plans or strategies; information on which types of health-care providers are used by the poor; data from any local studies on socioeconomic status of TB patients and poverty-related disparities.

STEP 2. Determine which barriers prevent access of the vulnerable groups to services that provide TB diagnosis and treatment

- Identify the types of barriers that may exist in the country/region, including economic barriers, geographical barriers, social and cultural barriers, health system barriers.
- Determine, for each group, the main barriers involved in the country/region, such as: economic barriers (complexity of the pathway to care, costs to patients); geographical barriers (distance from and difficulty of journey to TB services); social and cultural barriers (stigma, gender-related factors, fear of losing work, lack of knowledge of TB and the available services); and health system barriers (lack of respon-

siveness to the needs of the poor, effects of decentralization on peripheral services).

STEP 3. Assess potential actions to overcome the barriers to access

Identify and prioritize actions to address:

- Economic barriers: integration of TB services in primary health care; encouragement of pro-poor, public-private mix for DOTS initiatives; provision of TB diagnosis and treatment in the workplace; extension of microscopy services; avoidance of user fees; provision of diagnosis and treatment free of charge; discouragement of unofficial charges to patients.
- Geographical barriers: extension of diagnostic and treatment services to remote, poor regions; bringing patients from remote areas to TB services; development of a community-based TB care model.
- Social and cultural barriers: promotion of community mobilization; ensuring that staff attitudes do not reinforce stigma; advocacy for worker protection to avoid loss of work as a result of TB; ensuring that the TB health promotion plan takes account of poor and vulnerable groups; ensuring that gender-related needs are addressed in TB control activities; exploring possibilities for referral mechanisms from traditional health-care providers.
- Health system barriers: modification of schedules for TB diagnostic and treatment services to meet local needs; developing the communication skills of staff; discouraging staff from discriminating against poor patients; using total quality management to ensure that services remain responsive to the needs of the poor; engaging in health service decentralization to promote capacity strengthening at the periphery and inclusion of TB control as a district-level priority.

STEP 4. Review the situations and population groups requiring special consideration

- Identify the groups needing special consideration and their locations in the country/region, including: migrant populations (refugees, asylum seekers, economic migrants, displaced populations, cross-border populations); pockets of deprivation in wealthier countries (isolated ethnic minorities, homeless people and others); injecting drug users; prison populations.

- Decide upon actions to address the special needs of these groups: identify the specific needs of each of the groups; establish priorities for action based on needs, feasibility, available resources, effectiveness of the measures; examine current services available to the priority groups identified; define strategies to ensure the diagnosis, treatment and follow-up of TB cases for each targeted group; plan phased implementation of the pro-poor interventions selected.

STEP 5. Explore possibilities for harnessing additional resources

- Assess: available strategies to engage in broad initiatives to improve access to health services; sources of funding for improvement of health outcomes; institutions offering additional financial and other resources for pro-poor measures in TB control programmes; human resources to expand the public and private sector involvement in TB services; and technologies to enhance efficiency and effectiveness of TB services.
- Facilitate access to additional resources by: engaging in broader poverty reduction or health sector plans; identifying potential new partnerships in the country; prioritizing mechanisms offering greatest added value for increasing access to DOTS services; planning the preparation of proposals; involving other stakeholders in the planning process.

STEP 6. Evaluate the impact of pro-poor measures

- Establish the basis for impact evaluation by setting specific targets for TB control in poor and vulnerable populations, assessing the distribution of TB in the population and poverty-related disparities among DOTS beneficiaries.
- Facilitate the monitoring of poverty-related inequalities and the impact of pro-poor interventions by: identifying partners to carry out equity monitoring; including socioeconomic variables in routine data collection and analysis; including socioeconomic questions in TB prevalence surveys; conducting periodic studies of care-seeking and use of DOTS in health facilities; assessing who in the community benefits from DOTS services and who does not.

NOTE: the steps, factors to be considered, and potential actions are tabulated in the Annex, page 74.

INTRODUCTION

Poverty is the greatest impediment to human and socioeconomic development. The United Nations and its specialized agencies are focussing on poverty reduction as a leading priority. In the health sector, poverty represents a principal barrier to health and health care and, consequently, the World Health Organization (WHO) has committed to integrate the promotion of equity and pro-poor policies throughout its work. All WHO programmes are giving priority to the integration of pro-poor measures in their disease prevention and control activities. The issues addressed in this document reflect the application of this broader mandate to the specific case of tuberculosis (TB) control, recognizing the important contribution of poverty to the global TB epidemic. Many of the barriers and measures outlined in relation to provision of TB services are relevant for other public health problems, favouring a coordinated approach to tackling the poverty-related barriers to health care.

This document aims to answer the questions: (1) Who are the poor and vulnerable populations? (2) What are the main barriers they face in accessing services that provide TB diagnosis and treatment? (3) What steps can be taken to overcome these barriers? (4) Which situations and groups require special consideration? (5) What resources can be mobilized to strengthen TB control for the poor and vulnerable groups? (6) How can the impact of pro-poor measures be assessed?

Addressing poverty in TB control encompasses the needs of those facing not only economic impoverishment but also of all the relatively vulnerable, disadvantaged, marginalized, stigmatized and otherwise excluded sections of the population. Because a TB control programme operates in a poor country does not necessarily mean that it is adequately addressing poverty. A pro-poor, equity-based approach requires that health-care services pay special attention to the needs of the most disadvantaged groups.

The document is directed specifically to national TB control programmes and their partners. It is intended to help to select and implement the steps needed to ensure that the guiding principles of equity and poverty reduction are translated into practical measures –

and that these practical measures are integrated into the national TB services and linked to broader poverty alleviation efforts. Guidance is provided on how to identify the poor and vulnerable groups in the country, how to assess the main barriers they face in accessing TB services, and interventions to tackle and reduce these barriers. For individual countries, the country-specific context must be taken into account in determining priorities for action, based on needs, resources, feasibility and effectiveness of the measures envisaged. Consideration is given to strengthening the resources needed to improve equity in access to TB services and how to assess the impact of the pro-poor measures adopted. The document is as concise as possible: to this end, it does not include technical information on TB control with which national TB control programme managers are very familiar, and the references listed are limited to a selection of key publications.

As the title of the document indicates, this is not a formal guideline. While there is a solid evidence base for identification of the barriers to health care, there is not yet a substantial body of information regarding the efficacy and effectiveness of the measures proposed to address the barriers. The measures outlined in this document are based on best practices derived from an increasing array of innovative measures taken by TB control programmes and other health services in a number of countries. National TB control programmes have an important role in requesting and acquiring the information needed to evaluate and refine the measures indicated in this document. As experience builds up and evidence accumulates, this document may be developed further.

Chapter 1

Rationale for integrating pro-poor and equity-enhancing measures in TB control

This chapter sets out the rationale for addressing the specific needs of poor and vulnerable population groups. It describes the relationships between poverty, social deprivation and TB, and identifies the poor and vulnerable groups.

Socially vulnerable groups include, as well as those living in absolute economic poverty, a wide range of disadvantaged populations who have relatively little access to health services because of factors including ethnic group, geographical location, gender, education, living conditions, social exclusion and migration.

National TB control programmes can and should explicitly include pro-poor objectives in their strategic plans and interventions.

The pro-poor approach should complement and enhance the core objectives of national TB control programmes to detect and successfully treat more TB patients.

To provide a foundation for subsequent chapters, this one addresses three related questions: (1) Who are the poor and vulnerable and what is inequity? (2) What are the links between poverty and TB? (3) Why pursue pro-poor approaches?

1.1 Who are the poor and vulnerable and what is inequity?

Concepts of poverty and the poor have changed over time. Current definitions reflect widespread recognition that poverty in human development means far more than economic poverty alone. Several classifications of poverty and vulnerability are noted below and are reflected in the subsequent chapters.

1.1.1 *Economic poverty*

There are measures of absolute and relative poverty. The World Bank defines absolute poverty as living on US\$ 1 per person per day or less. The United Nations Millennium Development Goals (MDGs) call for a 50% reduction in the proportion of people living on less than US\$ 1 a day between 1990 and 2015. A feasible first step to reaching all poor individuals is to give special attention to improving health and health-care services among populations, regions or countries where absolute poverty is known to be widespread, or where relative poverty of assets and living conditions is concentrated.

1.1.2 *Vulnerability*

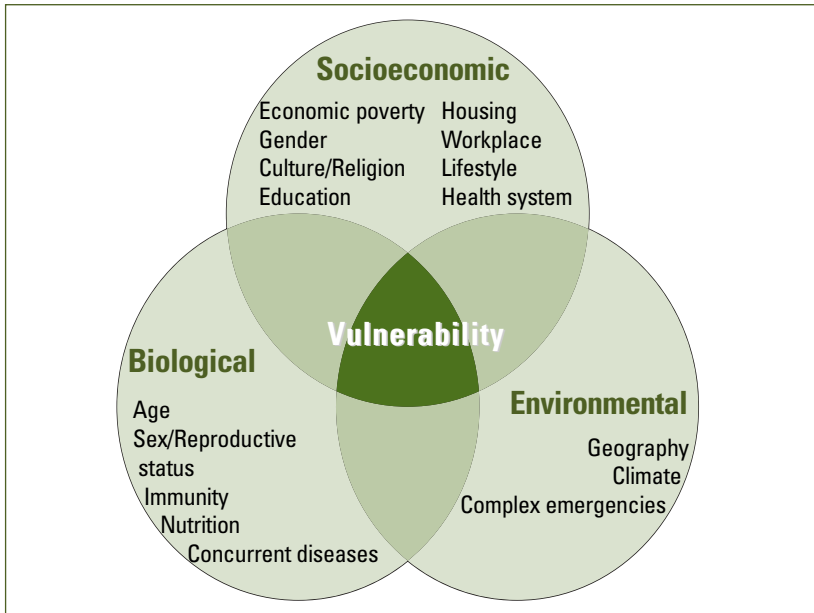
The World Bank also recognizes that "poverty encompasses lack of opportunities (including capabilities), lack of voice and representation, and vulnerability to shocks".¹ Vulnerability to disease and ill-health results from several major overlapping factors: underlying biological factors; socioeconomic factors affecting individuals, households and communities; and broader environmental or societal factors (Fig. 1). Of particular relevance are the links between vulnerability, poverty and disease.

Vulnerability can emerge from several fronts, including exclusion from access to services and opportunities as a result of race, gender, ethnic or religious affiliation; residence in marginalized urban or rural communities; or because of underlying lack of education to enable more secure employment, help-seeking behaviours or health-improving actions by people in their own homes.

Vulnerability to disease can also emerge in special situations, such as massive population movement, and among certain population groups caused by their living or working conditions or social behaviours (see Chapter 4).

¹ World Bank. *Operational policy on poverty reduction*. Washington, DC, World Bank, 2004 (OP 1.00).

Figure 1. Factors influencing vulnerability to ill-health



Source: Adapted from Bates I et al. Vulnerability to malaria, tuberculosis, and HIV/ AIDS infection and disease. Part I: Determinants operating at individual and household level. *Lancet Infectious Diseases*, 2004, 4:267–277.

1.1.3 Health inequity

Reduction of TB prevalence among the poor has been identified as a contributor to reducing overall inequities in health and advancing welfare for the poor. There are several definitions of health inequity. Here it is defined as unjust distribution of health resources, information and services relative to the health status and needs of individuals or groups.

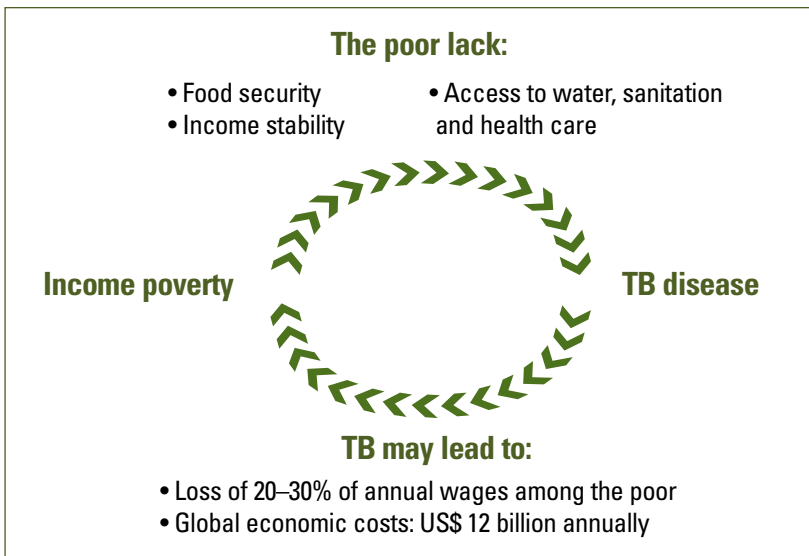
Inequity is relevant when examining the causes of ill-health, distribution of ill-health, barriers to seeking and receiving health services or prevention efforts and in the outcomes achieved with such interventions. Inequities can be measured across income groups, geographical groupings (nations, urban–rural and intraurban community differences), ethnicities, gender and social groups. Globally, for example, 80% of avoidable mortality has been attributed to communicable diseases in low-income countries. The world's poor nations therefore carry an inequitable burden of avoidable mortality.

1.2 What are the links between poverty and TB?

TB thrives in conditions of poverty and can worsen poverty. There is a long history of documented linkages (mainly from Europe and the United States) between TB and poverty at societal, community and patient levels. A general review of this literature was lacking until the past few years, when three such reviews were carried out. Although confirming that documentation on linkages between TB and poverty in low-income countries is far from comprehensive, the fundamental conclusion from these reviews is that, "while TB is not exclusively a disease of the poor, the association between poverty and TB is well established and widespread".²

The following sections provide brief illustrations of the differential risks of TB for the poor and/or vulnerable populations along the path from infection to disease and illness outcomes. Chapter 2 explores the relationships between poor outcomes and underlying barriers to access and effective care. Figure 2 shows a schematic presentation of the vicious cycle that exists between TB and poverty.

Figure 2. Income poverty and TB



Source: Adapted from Hanson C. *Tuberculosis, poverty and inequity: a review of the literature*. Geneva, Stop World Health Organization, 2002 (unpublished document commissioned by the Stop TB Partnership).

² Stop TB Partnership. *Stop TB: fight poverty. Satellite symposium on TB and poverty*. Montreal, Canada, 11–12 Oct. 2002. Geneva, World Health Organization, 2002.

1.2.1 Higher risk of infection

Economically poor and vulnerable groups are at greater risk of infection with *Mycobacterium tuberculosis* compared with the general population because of overcrowded and substandard living or working conditions, poor nutrition, intercurrent disease (such as HIV/AIDS), and migration from (or to) higher-risk communities or nations. In addition, for isolated ethnic communities (e.g. indigenous groups in Latin America and North America), the risks may be particularly high given relatively recent initial population exposure to TB bacteria and result in high rates of initial infection and development of disease.

Country (or area)	Findings
Economically advanced countries	Persons originating from low-income countries are at higher risk of harbouring infection than their counterparts originating from economically-advanced countries.
Urban Philippines	<i>M. tuberculosis</i> infection levels among those surveyed were four times higher among the urban poor than the non-poor.
San Francisco, London, Western Europe	Nearly 10-fold higher infection levels among homeless people compared with the average population.

The DOTS strategy

The DOTS strategy has the following five essential components:

- Government commitment to TB control.
- Diagnosis through bacteriology and an effective laboratory network.
- Standardized short-course chemotherapy with full patient support throughout treatment.
- Uninterrupted supply of quality-assured drugs.
- Recording and reporting to measure patient and programme outcomes.

1.2.2 Higher prevalence of disease

Following infection with TB bacteria, some poor and vulnerable subpopulations are more likely to develop active TB disease and therefore carry a greater burden of active disease, as shown in the studies summarized below.

Country (or area)	Findings
Norway, USA, Viet Nam	Prevalence of disease was higher among poor populations than national averages and/or non-poor populations
USA	Relative risk of TB disease, as suggested by routinely reported TB incidence, for the poorest 25% of the population was 2.3 greater than for the wealthiest 25%
Europe, Russian Federation, USA	Prevalence of disease about 10-fold greater among prisoners than general population
San Francisco	The TB case rate among Afro-American and other non-white homeless people was 3.5 times greater than among the general population
Urban Philippines	Urban poor communities have 1.5 times higher prevalence of disease than non-poor counterparts
East end of London, England and Wales	Average TB case rate (culture and/or smear-positive) among poorer urban community more than 7 times higher than national average
China	In prevalence survey, the sputum smear-positive TB prevalence rate was 2.4 times higher among village residents than city residents; 78% of TB cases had income lower than the population average in areas surveyed
Kenya	Incidence of smear+ TB 4 times greater among refugee camp residents than for the local population
Alaska, Brazil, Canada	Indigenous groups carry several-fold increased risk of disease than national averages or other ethnic groups

1.2.3 Worse outcomes of disease

The following table illustrates some of the available evidence on differentials in TB treatment outcomes by economic or social strata. It does not include research exploring the underlying reasons for poorer outcomes. Evidence on the major barriers to care is addressed in Chapter 2.

Country (or area)	Findings
Ivanovo Oblast, Russian Federation	TB case fatality rate (during treatment) was higher among homeless patients than among other patients
USA	Case-fatality rates among unskilled white labourers were nearly 7 times higher than among professional persons
Kenya	TB patients in the lowest income groups were less likely to complete treatment than others

1.3 Gaps in knowledge

Subsequent chapters make clear that lack of local documentation should not inhibit the most important steps in overcoming barriers to DOTS care for the poor and vulnerable population groups. Further national analysis on differentials in the disease burden, impact and outcomes will be useful to adapt strategies to better serve these groups. Chapter 6 provides an overview of methods to measure baseline conditions, as well as the effect and impact of pro-poor interventions in TB control.

1.4 Why pursue pro-poor approaches?

1.4.1 To reach out through providers and communities to close gaps in TB case detection and care

Today, more than 180 countries have adopted the DOTS strategy,³ more financial resources are available and service delivery is scaling up. While resources are still stretched and quality can be improved, many programmes can now focus on reaching missing cases and how to find patients earlier. Globally, in 2003, DOTS programmes reached only 45% of infectious TB patients and have far to go to reach more smear-negative patients. The poorer and more vulnerable patients are likely to comprise a substantial proportion of those not served and may be among the drivers of ongoing TB transmission. In addition, DOTS treatment success rates are still well below targets in some regions, such as in Africa and Eastern Europe. The poor may be among those facing the greatest barriers to staying in care.

1.4.2 To address TB in areas where poverty and vulnerability are worsening

In some regions of the world, the proportion of the population living in extreme poverty is increasing. In other regions, extreme poverty is concentrated among subgroups of the population and may often be associated with other social and political crises. This situation is made worse by the HIV/AIDS epidemic, which has increased poverty and vulnerability, and TB is intimately linked with that epidemic. TB control and poverty reduction objectives cannot be achieved only by seeking improvements of target indicators on averages across populations; they need to address the specific needs of vulnerable communities.

³ DOTS is the internationally recommended strategy for TB control.

1.4.3 To contribute to overall poverty reduction objectives of governments or communities

Poverty reduction is the first among the MDGs and is linked closely with five of the eight goals that directly address health. National TB control programmes can play an active role in new government-led planning for poverty reduction. Poverty reduction strategy papers (PRSPs) are being developed by many governments and their partners and are intended to guide priority-setting in public spending and in donor support. They offer a prime opportunity for TB programmes to promote the evidence on the links between TB and poverty and on solutions that begin with expanding primary health care and access to DOTS services. Managers of national TB control programmes can also share the lessons learnt for their own innovations in improving drug supply, in collaborating with private providers, in extending access to laboratory services and in launching community-based care and/or patient engagement in DOTS. Such evidence may also provide valuable routinely-collected indicators (case detection and cure rates) that might help measure the impact of such larger initiatives in subpopulations or areas.

Managers of national TB control programme should familiarize themselves with poverty initiatives under way or planned in the country or region, and explore whether and how their programmes could engage.

1.5 Actions to consider

The following are some key steps that national TB control programmes could take to address the issues introduced above.

- Collect available information and data from your government (or United Nations, World Bank, etc.) on the prevalence, nature and distribution of poverty and/or social vulnerability within your country.
- Identify any government documents that lay out pro-poor, poverty-reduction or equity-enhancing plans and/or strategies to help orient your work.
- Seek out any information on which types of health-care providers are used by the poor and vulnerable groups in your country.
- Review any locally conducted surveys or reports on the socio-economic status of TB patients, and/or on differences in case detection and treatment outcomes between richer and poorer regions.
- Document adaptations you have already made in the way DOTS is delivered in poorer versus richer regions or where vulnerable groups dominate the population.

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Chapter 2

Barriers to accessing TB services by poor and vulnerable groups

This chapter considers the main constraints and obstacles faced by the poor and other vulnerable and disadvantaged population groups in accessing effective TB services. The following groups of barriers are described:

- *economic barriers, within the length the complexity of the pathway to care;*
- *geographical barriers, including distance from services providing TB diagnosis and treatment;*
- *sociocultural barriers, including stigma and lack of knowledge of TB and available TB services;*
- *health system barriers, including lack of health system responsiveness and potential consequences of decentralization.*

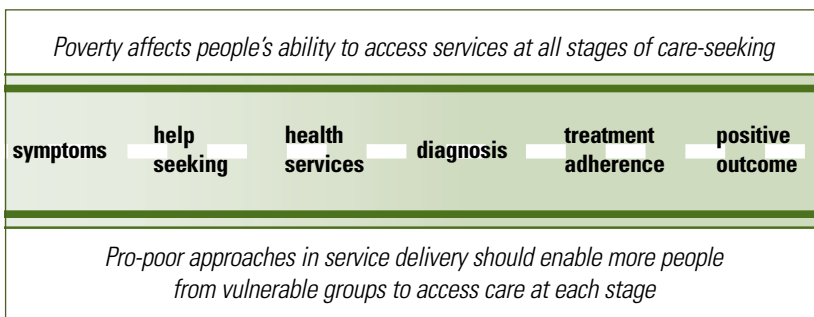
Many of the poor and vulnerable groups encounter more than one of these overlapping sets of barriers and have greater difficulty in overcoming them than the non-poor.

Insight into the scope of the problem is provided to draw attention to, and encourage further investigation of, these and other potential obstacles to quality-assured TB services.

To identify the barriers faced in accessing services that provide TB diagnosis and treatment, it is helpful to consider all of the steps that have to be taken by people from when symptoms develop to diagnosis, treatment and cure. These steps make up a pathway that is often represented, for simplicity, as a straight line (Fig. 3). In reality the steps are rarely followed in a linear sequence; people look for a range of remedies from a variety of different providers at all stages of their illness. In a study from Viet Nam, for example, patients made an average of 2.5 visits to each provider from whom help was sought, and an average of 1.3 different health-care providers had been contacted before the patients turned to, or were referred to, the designated TB services. Each step along

the pathway may be associated with barriers that a person has to overcome in their quest for a cure. These barriers are described in the following categories: economic, geographical, sociocultural and health system. There is considerable overlap and interdependence between the barriers in each category.

Figure 3. Pathway to accessing TB services



Source: Adapted from Nhlema B et al. *A systematic analysis of TB and poverty*. Geneva, World Health Organization, 2003.

2.1 Economic barriers

Several aspects of TB impose significant economic costs on patients and households, with a disproportionate impact on the poor. Each of these costs is a barrier to care. Clearly, patients who are suffering are less able to work and generate income for themselves and their dependants. Less obviously, people with TB may have to take many steps along the pathway to care (Fig. 3), and each step is associated with significant costs. For each health consultation there will be some combination of the following costs:

- charges for the health services (user-fees),
- transport, accommodation and subsistence,
- lost income, productivity and time.

2.1.1 Long pathways to accessing care

It is important to consider, from an economic perspective, the length of time that TB patients take to reach diagnosis and cure; the longer the

pathway, the more costs the patient has to bear. Certain social groups, such as women, the unemployed and the homeless experience longer delays in reaching a cure than their counterparts. These social groups include large numbers of poor people who can ill afford the costs imposed by delays in achieving a TB diagnosis. A proportion of patients, particularly from the poor and vulnerable groups, may drop out completely at any of the stages towards successful treatment.

2.1.2 Costs of care-seeking, diagnosis and treatment

Charges for consultation, diagnostic tests and drug treatment each present significant barriers to poor patients. Provision of anti-TB drugs free of charge is enshrined within the DOTS strategy, and many services offer reimbursements to patients for smear microscopy. But even under these circumstances charges for health services can be prohibitive for poor patients. Some health staff advocate additional diagnostic tests (such as chest X-rays) for which charges are made. Some providers may also advocate additional drugs in addition to the free anti-TB drugs, especially if motivated by cost-recovery schemes. It is also important to remember that even where consultation, diagnosis and treatment are officially provided free of charge, patients may face unofficial ("under-the-table") charges imposed by hard-pressed or unscrupulous health providers.

Payments for transport to and from health facilities for patients and their caregiver(s) for several different visits make up a large proportion of costs before diagnosis is established. If treatment requires frequent travel (e.g. for observation of treatment), then these transport costs may continue to accumulate after diagnosis, even if the distances travelled are not very great. The time lost in repeat visits to health providers is also costly in various ways, for instance through opportunity costs including lost earnings, neglected household responsibilities and lost productivity. Overall, therefore, costs to patients can easily accumulate even when diagnostic tests and drugs for TB treatment are provided free of charge.

Although aggregate costs for poor people tend to be lower in real terms than costs for other social groups, costs relative to annual or monthly income are much higher for poor people than for others. In the example illustrated in Table 1 the poor spend less on diagnosis than the non-poor but the overall costs faced by the poor are extremely high relative to their incomes (Table 1; last row).

Table 1. Average direct costs for an episode of TB before and after diagnosis within the national TB control programme in Thailand

	PATIENTS	
	income below poverty line	income above average
Annual household income	21 584	194 028
Average expenditure before diagnosis	1 430	1 669
Average expenditure after diagnosis	1 467	1 422
Average total expenditure	2 168	2 922
Expenditure as % of household income	15.3%	1.8%

Costs shown in Thai Baht

Source: Adapted from Kamolratanakul P et al. Economic impact of tuberculosis at the household level. *International Journal of Tuberculosis and Lung Disease*, 1999, 3(7):596–602.

The costs resulting from time that is lost in care-seeking are generally higher for poor people, who are mainly daily wage earners or engaged in minor trading with no income security. Furthermore, most low-income workers operate in the informal sector, so they are particularly vulnerable not only to loss of income but also to the possibility of loss of business or dismissal from work.

In countries where HIV seroprevalence is high, it is important to be aware that TB patients with concurrent HIV infection face additional intercurrent illness, more care-seeking costs and further reductions in their ability to earn. The interplay between TB, HIV and poverty is particularly devastating for livelihoods.

2.1.3 Consequences of economic barriers for the poor

The socioeconomic consequences of TB, as detailed above, are considerable for all groups and may even push the non-poor towards poverty. The consequences for poor patients and their households can be devastating. Poor patients may have to cope with the economic demands of the illness by reducing expenditure on other items that are important for their health, such as food and safe water. This and other coping mechanisms, such as the sale of assets or taking on debts, are themselves impoverishing in the longer term. Patients may also stop treatment because they cannot afford the range of costs associated with continuing treatment, even when treatment itself is provided free of charge. TB cases

may also be lost from the diagnostic process or remain undetected because TB suspects cannot afford the costs of seeking TB care.

2.2 Geographical barriers

Geographical distance presents a major barrier to accessing general health services and affects the poor disproportionately. Health services providing TB diagnosis and treatment or specialized TB clinics are often concentrated at higher levels of health services and located relatively centrally rather than integrated into primary-level services. This tends to increase the distance that people in more remote populations have to travel, possibly several times, to be diagnosed and receive treatment. Travel to TB services is particularly burdensome in settings where roads are inconvenient and/or public transport is lacking, for instance in most rural areas in developing countries and in countries with vast territories. In the rainy season or where snowfalls occur (e.g. in cold mountainous areas), some roads may be closed, compounding the problem of distance. In addition, long distances mean more out-of-pocket costs for patients as well as loss of their time for work, which affect low-income groups more than others.

2.3 Social and cultural barriers

2.3.1 *Stigma*

In some settings TB is considered to be an inherited and/or incurable disease associated with unclean or undesirable habits or livelihoods. This kind of perception is often reinforced among the poor by impaired access to information and when the costs of reaching diagnosis and cure are out of reach. When such perceptions are widespread, the associated stigma of TB leads to fear of loss of employment and income, social exclusion and diminished marriage prospects. Women, more often than men, face very different, and sometimes extreme, reactions to TB and stigma (see also 2.3.3 below). This fear can promote denial, undermine self-esteem and, ultimately, prevent timely diagnosis and effective treatment of TB.

These perceptions can also result in resistance to helping people who are being treated for TB. In some places, incorrect notions persist about the dangers of TB patients as a source of disease, the difficulty of treatment, the suffering accompanying the disease, the need for removal

of TB patients from normal social environments and the likelihood of dying from the disease even if treated. Often, marginalized groups and the poor have limited access to information sources, so the knowledge and messages promoting behavioural change that would help dispel stigma are not effectively disseminated. Where female literacy and education levels are low, the consequences of stigma may be particularly marked for women. Health providers can themselves reinforce stigma through their own practices and interactions with TB patients. It is common, for example, to see health professionals wearing surgical masks in the presence of TB patients. During health education sessions, stigma can be reinforced by emphasizing the importance of safe disposal of sputum at the expense of conveying the message that modern treatment rapidly renders patients non-infectious.

2.3.2 Lack of knowledge and recognition of TB control as a priority

As TB often starts gradually, and the poor frequently suffer from intercurrent diseases, symptoms of TB may be easily neglected. Frequently, important activities required for survival (such as the pressing work required to bring in a harvest) are given higher priority than seeking health care. This, coupled with a lack of knowledge about TB, may lead patients to dismiss symptoms as unimportant or to attribute them to other conditions such as a chronic cough or prolonged influenza. Illiteracy and low levels of education among the poor contribute further to lack of awareness of the importance of early detection and treatment of TB.

Despite the fact that TB treatment is widely available and often provided free of charge, the poor may not be aware of this. In addition, knowledge and attitudes may vary among deprived communities in different parts of the country. The poor in urban slum areas and in remote rural areas may have different understandings of TB as a disease. In the case of patients released from the penitentiary system, where access to treatment may be available, many may not know where and how to follow their treatment after release from prison. This situation may be aggravated by the fact that ex-prisoners are often unemployed and left without psychosocial support (see Chapter 4).

2.3.3 Gender-related barriers to access

Both women and men may face gender-related barriers when trying to access TB services. These barriers vary in different settings and need

thorough assessment and analysis. The examples presented here are important but do not necessarily apply in all settings. Fear of losing a job tends to discourage care-seeking among working men, resulting in delayed diagnosis and treatment and/or high default rates. However, women often have less access to general health-care services than men, and women may face limitations in their travel and financial resources. As a result, under-detection of TB may mask the true incidence of the disease in both women and men.

Poor women with TB tend to suffer from fear of being rejected by the family and the community. It has been shown that the stigma of TB is often more pronounced among women than men. While men usually worry more about loss of wages and capacity for work, women worry most about social rejection – from husbands, in-laws and the community in general. There are anecdotes of young married women who have been forced out of the family or divorced because of having TB. There are also examples of single women whose chances of getting married are reduced by having TB.

Women in many countries have to overcome several barriers before they can access health care. Where they undertake multiple roles in reproduction, production and child care, they may be left with less time to reach diagnostic and curative services than men. Families often take the girls out of school if a family member (especially the mother) is suffering from TB and there is a need for a person to assume the responsibilities of daily household activities. Women may be given less priority for health needs and generally have less decision-making power over the use of household resources. They often have less knowledge of TB, especially of its signs and symptoms, than men, related to the higher rate of illiteracy among women than among men worldwide.

2.3.4 Traditional practices and systems

Some groups, particularly in remote or isolated poor populations, have cultural or traditional values about health that lead to seeking traditional, ancestral or spiritual healing first and seeking modern medicine only when these traditional interventions fail. These initial care-seeking steps can delay diagnosis and may cost patients time and material resources, especially if there is no system for referral to modern health services.

2.4 Health system barriers

2.4.1 *Lack of health system responsiveness*

DOTS implementation may be particularly difficult in areas with concentrations of poor and vulnerable people, such as city slums and geographically remote areas. This is because general health systems do not function well in these circumstances for a variety of reasons, including low pay for health staff and lack of staff motivation. In some settings, the poor sections of the population may be discouraged from seeking diagnosis and treatment by a perception that the health system does not address their needs, and may even appear to discriminate against them. Public, government-run services in some countries are perceived by the poor to be unreliable and of poor quality.

Even in well established DOTS programmes, health staff may find ways of avoiding their responsibilities to patients who are likely to be "difficult". There are documented examples where health providers have required evidence of a permanent address or regular employment before agreeing to enroll patients for TB treatment. In Malawi, an in-depth study of patients who got as far as a confirmed TB diagnosis but failed to start treatment revealed that these patients felt that the health services, both public and private, did not serve their needs.

Such studies demonstrate that TB care services may be unresponsive to the needs of the poor and vulnerable, even where DOTS programmes are well organized. Unresponsiveness, combined with the effects of the other barriers described above, may result in poor people being excluded to the extent that TB cases among the poor are missed completely. Indeed, several studies from developing countries (Brazil, India, Malawi and South Africa) have demonstrated that there may be more "missing cases" among poorer populations.

2.4.2 *Health service decentralization*

One of the major drivers behind health service decentralization has been the desire to strengthen services at primary level to promote equity in access. Where strengthening services leads to stronger integration of TB diagnostic and treatment services at primary level, patients are likely to have to travel less to more centralized or specialized TB services. However, decentralization does not automatically result in better access for poorer populations. If, for example, budgetary allocations for TB services are left entirely to local governments with limited capacity for

analysis and planning, TB, as a relatively uncommon and insidious disease, may be under-financed. The peripheral, more remote areas then receive weaker TB services, and access becomes biased in favour of people living in urban areas.

2.5 Actions to consider

Assess economic barriers

- Examine whether TB services are organized in a way that simplifies the care-seeking pathway for TB patients.
- Check whether diagnostic and treatment services for TB are well integrated within primary-level health facilities.
- Check whether treatment observation requires patients to make multiple visits to health facilities.
- Determine which services provided by the national TB control programme patients are required to pay for (charges or user-fees).

Assess geographical barriers

- Identify areas where patients have to travel long distances or over difficult terrain to reach TB services.

Assess social and cultural barriers

- Identify areas and population groups for which the use of TB services is much less than would be expected.
- Identify and analyse the principal barriers, including gender-related barriers, to accessing TB services that affect poor and vulnerable population groups.

Assess health system barriers

- Investigate staff attitudes towards poor patients and whether informal ways are being used to exclude difficult patients from treatment.
- Assess the extent to which decentralization leads to strengthening of TB services at primary level.

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Chapter 3

Potential actions for overcoming barriers in accessing TB services

This chapter proposes a range of potential actions to overcome the most common barriers faced by poor and vulnerable population groups in accessing TB services, as described in Chapter 2.

- The pathway to diagnosis and cure can be curtailed by: bringing TB services close to homes and workplaces; offering treatment observation options to reduce costs to patients; engaging communities, nongovernmental organizations and other partners, such as private health providers and employers, in TB service delivery through carefully designed, pro-poor public-private mix for DOTS (PPM) and TB control initiatives in the workplace; and improving health system responsiveness through staff training, discouragement of discriminatory practices, incentives to encourage better staff performance, quality assurance, information exchange and empowerment of patients.*
- Economic and financial barriers can be further alleviated by measures, including: advocating against user-fees in primary health-care provision in the public sector; provision of free diagnosis and treatment for TB free of charge; and use of incentives and enablers for poor patients.*
- Geographical barriers can be addressed by bringing services to remote populations or by transporting remote populations to services.*
- Social and cultural barriers can be addressed by: tackling stigma through knowledge dissemination and behavioural change with the support of former TB patients and others; conducting health promotion activities that are tailored to the poor; and reducing gender-related barriers.*
- Health system barriers can be addressed by: improving organization of health services, staff attitudes and communication skills; increasing the demand for TB services from the poor; and health service decentralization.*

In this chapter, ways of overcoming each of the groups of barriers presented in Chapter 2 are described. Since there is overlap and interaction between the barriers presented in each group, addressing one set of barriers may also have additional impacts on others. Furthermore, since the barriers vary in type and importance in different settings, knowledge of the demographic, cultural and socioeconomic characteristics of the population is useful in planning ways to address barriers to access (see also Chapter 6).

Often, a multisectoral approach will be needed to deal with a combination of economic and social barriers faced by the vulnerable sections of the population.

3.1 Addressing economic barriers

3.1.1 Shortening the pathway to care

Organization of public health services. Long and complex diagnostic and treatment pathways are costly, especially for the poor sections of the population. Actions that will simplify and shorten these pathways will therefore benefit the poor. The basic organization of TB services can make a significant difference to the accessibility of the services. If, for example, TB diagnosis and treatment are available only in relatively centralized and specialized TB institutions, then integrating TB diagnostic services within public services at the periphery will significantly reduce the number of visits to health services.

Engaging other partners in provision of TB services. If the poor preferentially consult private health providers, then integrating TB diagnostic and treatment services within this private provision (as exemplified in pro-poor PPM DOTS initiatives) will also shorten the pathways of TB patients to care.

Another way of simplifying the pathway to cure for both diagnosis and treatment is to integrate TB control into the workplace, especially if the workplace in question provides employment for large numbers of poor patients on low incomes, as is often the case, for example, in mines and export processing zones. The WHO publication, *Guidelines for workplace TB control activities: the contribution of workplace TB control activities to TB control in the community* (see selected references), should be consulted. Engaging unions and employee organizations can also be constructive in this area of work.

Improving laboratory capacity, including quality-assured smear microscopy networks, transport of samples and mycobacterial culture. As smear microscopy is the cornerstone of TB diagnosis and the gateway to TB services, smear microscopy services should be easily accessible, of assured quality and responsive to patients' needs. Requiring repeat visits to submit successive sputum samples complicates the care-seeking pathway and increases costs, which are particularly burdensome for the poor (see Chapter 2). Increasing laboratory capacity for smear microscopy, integrating smear microscopy into primary health-service provision and building quality assurance mechanisms will promote overall health system responsiveness to the needs of the poor. Many countries are innovative in their use of private and public transport of sputum samples and slides from remote areas.

Expanding regional and district laboratory capacity in sputum culture is a major challenge but will be needed to increase earlier diagnosis for all patients. New diagnostics may begin to replace smear microscopy or traditional mycobacterial culture with tools that are more user-friendly and efficient for patients and health workers.

3.1.2 Reducing the costs of care-seeking, diagnosis and treatment

TB patients frequently access TB services through general health services. In addition to the costs of repeat consultations (such as transport and lost income), user-fees present additional barriers to access to general health care for the poor. Managers of national TB control programmes may not be able to change user-fee policies in general health services, but they can advocate against their introduction at primary-care level and or advocate for health insurance schemes that mitigate the effects of such policies on the poor. With reference to specific TB services, the costs of initial sputum microscopy and/or X-ray examination pose a major barrier to diagnosis of TB among the poor if they have to pay directly. Sputum examination provided free of charge should be strongly advocated as part of public health policy. In some countries, nongovernmental organizations (NGOs) and charity organizations may be involved in supporting the cost of the first examinations for diagnosis of TB in general and among the poor in particular.

In accordance with the core principles of the DOTS strategy, the national TB control programme should ensure that anti-TB drugs are provided free of charge through the public health network, as well as

other collaborating health provider networks. This removes a major financial barrier to accessing and completing TB treatment.

Unofficial (“under-the-table”) payment to health-care providers is a practice in some settings, notably where staff motivation is poor. This practice should be strongly discouraged. Health authorities may establish an inspection system and/or ensure that patients and the community may freely express their opinion on the quality of services and existence of such practices.

Other costs to patients, including transport costs to treatment centres, are often underestimated. Potential actions to reduce out-of-pocket costs vary in different settings. Treatment observation options can be designed to reduce costs to patients rather than to ease service delivery, e.g. some DOTS programmes offer community-based observation (such as guardian-based observation in the home) in addition to hospital- or health-centre-based observation. Assistance in reducing costs for patients may be arranged by national TB control programmes themselves or through partnerships with NGOs, including charity organizations. NGOs and national TB control programmes may provide incentives and/or enablers for patients. Experience is growing in several countries (e.g. Cambodia, Peru and the Russian Federation) with enablers such as food parcels, free transport vouchers or clothes. In some countries, with support from charity organizations, meals are organized for the poor in day-care centres, where patients may be referred for direct observation of treatment. It may be advisable to pilot-test these measures for feasibility and effectiveness before widespread use. In some settings, low-cost incentives to TB patients have been shown to improve early diagnosis and adherence to treatment, but evidence is still weak in most high TB burden countries.

3.2 Bringing TB diagnosis and treatment closer to the poor

Wherever possible, and without compromising quality, TB services should be brought to the peripheral levels to reduce the distances travelled and costs associated with each health service consultation. Managers of national TB control programmes can discuss with partners, community leaders and people living with HIV/AIDS (PLWHA) measures to decrease distances that patients need to travel in order to be diagnosed and treated for TB. Decentralization and health sector reform are processes through which diagnosis and (ambulatory) treatment of TB may be brought closer

to where patients live. In some very remote areas, rather than take treatment observation and DOT support to patients, patients can be brought to treatment or observation centres. With the support of local governors, public transport vouchers are issued for TB patients in remote areas of India (see page 42).

Primary health-care services play a crucial role in improving access to diagnosis and treatment, and TB services should be integrated within such services. Special attention should be paid to slum areas of big cities as well as remote rural areas where poor people tend to be concentrated. In some instances it may be worth re-examining the number of facilities offering TB services per head of population in order to plan the establishment of new diagnostic centres or more efficient referral systems.

Community-based care offers another mechanism for improving access to TB services. In the late 1990s, a major programme of work was begun to review community-based TB care models in use around the world and to pilot-test approaches in sub-Saharan Africa. The objective was to relieve health services overburdened by the dual TB and HIV epidemics and to increase effective case management through care in the community. The results were positive and demonstrate that community-based care reduces costs and improves treatment outcomes. Follow-up work now focuses on scaling up models and examining their impact in improving case detection, and should include analysis of their impact on the poor.

PLWHA are particularly prone to poverty and the burden of intercurrent infections. The national TB control programme should establish and maintain an active collaboration with the HIV/AIDS control programme and make specific arrangements to reach PLWHA so that they have early access to diagnosis, treatment and follow-up.

3.3 Addressing social and cultural barriers

3.3.1 *Alleviating stigma*

It is essential to consider the social and cultural aspects of health-seeking behaviours as determined by knowledge, beliefs and values and their associations with TB health delivery systems in each setting. Stigma towards TB exists to differing degrees in most countries and may be particularly problematic among the poor.

Effectively treated and cured patients are often the best advocates for TB services and may become drivers of social mobilization to support TB control. It may be useful to invite former TB patients, TB patient-support groups and/or public figures as ambassadors to talk to the media about TB and to use them in other ways to inform and mobilize communities. In some settings it is feasible to organize home visits by, for instance, nurses or former patients or to launch local TB health promotion activities. If carefully planned, these activities may improve awareness of TB services among the poor and vulnerable and help alleviate stigma.

Where staff attitudes and behaviour reinforce stigma, particular attention may be needed through training and approaches such as total quality management. It may be useful to engage experts in personnel management for this.

Fear of losing a job may pose a serious barrier to seeking diagnosis and is likely to reinforce stigma. Manager of national TB control programmes may need to advocate for ministerial-level discussions with the labour organizations, employers and/or health insurance organizations to protect workers who seek care and those who follow treatment while working. Effective worker protection is likely to require a legal framework that can be developed from these discussions. Diagnosis and treatment of TB may be brought to the workplace, so that patients who do not pose a significant risk of infection to others may follow treatment at their workplace without fear of losing their jobs.

3.3.2 Improving knowledge and dissemination of information

With limited access to public information (especially print and electronic media), the poor and marginalized groups may be unaware of what treatment options are available, so it is essential to communicate information about diagnosis and treatment provided free of charge and where they can be obtained. Awareness campaigns should, however, be launched only after quality-assured services have been established.

The optimal means of communicating this vital information in a manner that suits the needs of the poor is best determined locally. Surveys and qualitative studies are often arranged, and carried out with collaborating partners as necessary, to assess the knowledge, attitudes and practices of the population (KAP surveys), and specifically of the poor, regarding TB. It is important to use these surveys to determine the most influential and usable sources of information for the poor in order to

inform local health promotion and communication strategies. A comprehensive TB health promotion plan should be developed to raise awareness and knowledge about TB and the services available.⁴ Messages should be clear, focused, short, culturally sensitive and appropriate.

Educational levels play an important role in the ability of patients to understand the treatment of TB. A nurse or physician in a TB or general health facility may conclude that patients who do not follow instructions are being uncooperative. In fact, the patient may fail to follow the treatment because of lack of understanding of the medical terms, unfamiliarity with medical systems or inability to read the materials provided. In some settings, minority groups need special attention: their language and health-seeking behaviours may differ from those of other sections of the society, and the national TB control programme's pro-poor agenda should take these factors into account.

3.3.3 *Reducing gender-related barriers*

As emphasized in Chapter 2, gender is an important dimension of poverty. Identifying and overcoming gender-related barriers are extremely important for TB control programmes. Poor men and poor women each face different barriers in different contexts, which need to be assessed and addressed locally. It is therefore important to analyse specific gender-related barriers before planning interventions. Some general considerations are presented here.

Women, particularly in poor or remote populations, very often consider their disease symptoms in terms of their reproductive health. They may therefore seek reproductive health services where awareness of TB may be low. In such instances it may be important to increase awareness of TB among staff in maternal and child health clinics. Alternatively, women may be reluctant to present their symptoms to (for example) male health workers in general health services. In such instances it may be important to engage women's support groups or more female health workers to overcome the barrier.

Men tend to consider their disease symptoms in terms of their ability to perform manual labour. They may therefore be very reluctant or unable to seek health services until very ill. In such cases it may be necessary to take diagnostic and treatment services to the places where poor men work, such as mines, export processing zones or estates requiring large seasonal

⁴ One example is *An IEC strategy for Orissa: revised National Tuberculosis Control Programme*, which describes the goal and components of an IEC strategy, roles and responsibilities and specific activities (<http://www.dantb.org/publictn/IECstrgy/fulltext.pdf>).

agricultural labour forces. Patient support groups have also been helpful in supporting men through treatment in the workplace and community.

Managers of national TB control programmes should assess awareness of gender-related issues among their staff and plan appropriate training. However, training alone, unlinked to specific, integrated and ongoing activities may be of limited benefit.

Health promotion campaigns should be planned to include specific consideration of gender-related issues. Social mobilization plays an important role in ensuring the success of such campaigns.

3.3.4 Understanding traditional practices and systems

It is important to understand how and why poor populations access traditional health providers before planning referral mechanisms between such providers and modern health services.

3.4 Addressing health system barriers

3.4.1 Improving responsiveness of health-care services

Organization of health-care services. It may be possible, at least in some settings, to arrange alternative working hours for health-care facilities to allow better access particularly for women but also for all whose work limits their access.

Communication skills, staff attitudes and practice in relation to the poor. Perception of the quality of health-care services plays a crucial role in the public's trust and use of the services. Special attention should be paid to the development of communication skills of the health-care staff. Training in effective communication should be included in training curricula (for example by introducing role play and group discussion in the training of staff). Supervisors should monitor the effectiveness of staff communication with patients during their visits to TB facilities.

It is important to eliminate any practices that may discourage the poor from seeking diagnosis and treatment. Community studies are useful to reveal people's perception of the health services. Practices such as the use of patient selection criteria and/or unofficial payments to health staff are to be strongly discouraged. National TB control programmes may include inspection systems to ensure that patients and the community are able to express their opinion freely about the quality of the services and the existence of any discriminatory practices.

To maintain standards and promote public confidence in health facilities, a health quality-assurance system addressing the needs of the poor must be in place and functioning effectively. Quality assurance is a planned, systematic approach to monitoring, assessing and improving the quality of health services on a continuous basis within the existing resources.

Staff performance, particularly how the staff deals with poverty-related issues, is a major factor in assuring responsiveness to patients' needs and encouraging general satisfaction with the services provided. Motivation of staff is a key factor in their performance. Incentives may be introduced to reward performance, such as the possibility to attend training courses, performance-based salary payments, or other measures which may be considered.

Giving a voice to the poor. It is important to seek and understand the views of the poor about service provision. Encouraging demand for services from poor communities will be an important driver of change, and feedback loops should be established from the communities and peripheral staff to and from the central/regional national TB control programme. This will provide information to guide the adaptation of policies and practices at national/regional level. It is also important for maintaining staff motivation and satisfaction.

3.4.2 Health service decentralization

Health service decentralization that strengthens TB service delivery at the periphery in primary-level services will help to improve the responsiveness of health services to the needs of the poor. However, as already discussed, national TB control programme managers should also be able to remind reformers about the need to be objective in introducing critical health sector changes, particularly in health systems that are already weak.

Continuous monitoring of TB services using appropriate indicators, as described in Chapter 6, is essential to assess the impact of the services provided, including their responsiveness to the needs of the poor sections of the community.

3.5 Actions to consider

Select and work with partners to prioritize which barriers to address first. This will depend on the assessments of barriers made through the action points in Chapter 2.

Address economic barriers

- Integrate TB services as much as possible within primary health-care provision.
- Encourage PPM DOTS if the poor preferentially consult private health providers.
- Promote workplace TB control in selected workplaces that engage many low-income employees (such as mines and clothing factories). Consider engaging trades unions or employee support organizations.
- Improve and expand the reach of smear microscopy networks by ensuring rapid turnaround of quality-assured results for patients. Consider innovation in the transport of samples, specimens and results.
- Avoid user-fees wherever possible.
- Provide smear microscopy free of charge.
- Provide treatment free of charge.
- Discourage unofficial (“under-the-table”) charges.

Address geographical barriers

- Extend diagnostic and treatment services to remote, poor regions.
- Consider bringing poor patients from remote regions to TB services (e.g. through provision of transport vouchers).
- Develop an appropriate community-based TB care model.

Address social and cultural barriers

- Invite former TB patients and TB support groups or patient organizations to advocate for TB services and help with community mobilization.
- Ensure that health staff attitudes and behaviour does not reinforce stigma.
- Advocate through labour organizations, employers and others for legal frameworks to protect employees from loss of employment as a result of TB.
- Ensure that the TB health promotion plan takes into account the specific needs of poor and vulnerable groups.
- Conduct and sustain gender-related needs in TB control activities.
- Consider referral mechanisms and partnerships with traditional health providers.

Address health system barriers

- Consider alternative opening hours (e.g. in evenings) for health-care facilities to cater for those with fixed working hours and commitments.
- Develop communication skills among health-care staff to improve communication with poor and vulnerable or "difficult" patients.
- Discourage staff from using unofficial ways of denying services to poor people who they may perceive as "difficult to treat".
- Consider total quality management as a means of ensuring that services remain responsive to the needs of the poor.
- Encourage community mobilization and demand for TB services among the poor.
- Engage positively with health service decentralization, but ensure that it proceeds with sufficient capacity strengthening in poorer, less well served areas to prevent TB control from slipping in the district-level priority-setting.

Addressing the barriers: experience from India

The Government of India is committed to TB control, which is integrated within primary health care under the Revised National TB Control Programme (RNTCP). Pro-poor interventions form an integral part of the programme, which attempts to address inequities in health care by eliminating physical, financial and social barriers that affect the poor and vulnerable groups.

Free TB services. Direct costs to patients are reduced by the provision of both diagnostic and treatment services free of charge under the programme.

Special provisions for inaccessible areas. Norms have been modified for inaccessible and remote areas to increase access to the free services under the programme.

- Compared with the norm of 1 microscopy centre per 100 000 population, there is provision for 1 centre per 50 000 population in hilly and remote, poorly accessible areas.
- There is provision for payment of transport costs to patients, including tribal populations, in the remote areas.

Decentralized services. Indirect costs to patients, such as for transport to the nearest health facility, are reduced by providing decentralized services and ensuring physical accessibility to the free services provided under the programme.

- Identification of service providers closest to home helps to reduce the indirect costs.
- Sputum collection centres have been set up to enable the poor to benefit from RNTCP services.

Intersectoral collaboration. Through effective and sustainable intersectoral collaboration, those with limited access to RNTCP services have benefited. The aim is to deliver TB services through all available channels, which may include private sectors, nongovernmental organizations (NGOs) and corporate sectors as well as other ministries and departments such as railways and the Employees State Insurance Scheme that cater to a large section of the population.

- Cost of services and drugs both to the patient and the provider has been reduced.
- These collaborations have improved access to the free services as a large segment of the population approach health-care providers in the private/NGO/corporate sectors.
- Community participation has been enhanced through involvement of NGOs, civil societies and Panchayati Raj (local government) Institutions. There are commendable examples of community volunteers and self-help groups who are providing DOT and helping to reduce stigma.

Advocacy, social mobilization and empowerment: information, education and communication (IEC) efforts have been made under the RNTCP, specifically aimed to empower the marginalized groups.

- Transfer of information and skills to both the community and the providers is being promoted through use of training, mass media and locally appropriate folk media relaying gender-sensitive messages about the disease and available services.
- A wide range of IEC material has been developed, directed to the different target population groups.
- A special module on interpersonal communication has been developed and is used as part of all training programmes under the RNTCP.

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Chapter 4

Situations and population groups requiring special consideration

This chapter considers a number of situations and population groups in which social disruption added to poverty impedes access to health services. Groups such as migrant populations (refugees, asylum seekers, illegal immigrants, migratory workers, cross-border populations); ethnic minorities; the homeless; injecting drug users; other marginalized groups in wealthier countries; and prison populations, can exist in every country, and TB services may therefore need to be adapted to address their specific needs.

- *These groups often have a relatively high TB burden and may not be included within the regular responsibilities of the national TB control programme.*
- *TB programmes should prioritize and liaise with other public or private groups working with these populations.*
- *The fundamental principles of TB control apply, i.e. devising a method of identifying suspects and referring them for early diagnosis, appropriate follow-up and treatment support, adequate recording and monitoring and a system for managing transfer of patients between camps/countries/prisons/shelters as appropriate.*

This chapter draws attention to special situations and population groups where disruption of social networks adds to the effect of poverty on health-seeking behaviours and access to services. These include situations of massive population movements (displacements, refugees, asylum seekers) and of groups such as illegal immigrants, migratory workers, cross-border populations, minors (the orphaned and homeless), ethnic minorities and other marginalized communities within wealthier environments. For these groups, factors such as social isolation, reduced access to health services, lack of trust in the health system and lack of a voice in the community all have a negative impact on health.

Frequently, the care of such groups falls outside the routine responsibilities of the national TB control programme so that their needs are often overlooked, thereby generating greater inequalities. The burden of TB is often higher than in the general population of the country, and specific measures are therefore required for the prevention and control of TB among these groups. The special situations highlighted in this chapter are important and commonly occurring, but they are not exhaustive; in individual countries, other special situations may be present and need to be identified (e.g. where freedom of movement is restricted by employers, where internal migrants are subject to harassment by officials and where orphaned street children are present in cities).

4.1 Migrant populations

Massive population movements are often the result of violent conflicts, discrimination, environmental disasters, famine, etc. Migrant communities have special health needs and experience obstacles to accessing health-care services such as language barriers, stigmatization, lack of cultural awareness, distress and other psychological problems including fear of expulsion, disruption of families and social patterns, and economic difficulties.

Refugee movements frequently affect TB control programmes in the receiving regions by increasing the disease burden and workload on the local health-care services and/or other DOTS providers. They may also generate economic or political instability and disrupt the everyday activities of the local communities. TB programmes should be aware of the needs of migrant groups, their impact on local TB control services and the need for appropriate resources. In countries affected by warfare, insecurity may impede access to health facilities.

4.1.1 *Refugee communities*

Some 90% of the world's 10 million refugees are from developing countries, a high proportion of whom remain in developing countries. The characteristics of the population of each refugee settlement are unique as they are associated with the country of origin and/or the specific conflict. In general, refugee settlements or camps are overcrowded and living facilities tend to be poor. Although these conditions increase the risk of TB infection, TB control is not a priority during the initial *emergency phase* when large numbers of refugees arrive.

TB control measures should be implemented during the *stable phase* if the refugee community is expected to remain, and good referral systems should be ensured. DOTS policies for refugee settlements/camps have been based on experience showing that, if applied consistently, the DOTS strategy will reduce morbidity, mortality and transmission of TB among refugee populations living in camps.

TB control programmes for refugee communities should be integrated into the primary health-care services. In addition, TB/HIV coinfections should be suspected in populations moving from areas with high HIV prevalence. Given the risk of HIV transmission in refugee camps, TB and HIV/AIDS control programmes should work together. Often, it is also useful to work with human rights groups. Women are particularly vulnerable in refugee populations, and special attention should be paid to their health-care needs.

4.1.2 *Asylum seekers*

Asylum seekers are individuals often living in the community and awaiting the outcome of applications for protection visas. They should be entitled to the same health-care services offered to the general community, but in practice they experience a greater burden of ill-health, many experience access barriers such as lack of cultural sensitivity, language barriers, lack of knowledge of the services provided and users rights, fear of being discriminated against or the belief that disease will somehow jeopardize their visa application.

The incidence of infectious diseases such as TB among asylum seekers reflects that of the country of origin. TB control programmes are responsible for providing appropriate TB control services to these populations, giving priority to rapid identification to ensure adequate treatment and reduce the risk of transmission to the local community. Industrialized countries have different policies on TB screening of asylum seekers at entry points, and many countries describe high proportions of treatment defaulters and difficulties in following patients. The risk for defaulting treatment is higher in asylum seekers than among the general population.

It is important that TB control programmes and health services engage professional interpreters and produce adequate information materials for the needs of asylum seekers, including information on access to services, patients' rights, costs of services and education about TB and other infectious diseases.

4.1.3 Economic migrants and displaced populations

Economic migrants tend to be skilled or semi-skilled individuals who emigrate (legally or otherwise) for economic reasons for the longer term. These individuals are often isolated or represent ethnic minorities in the host country. Migration increases the risks of transmission of infectious diseases such as TB or multidrug-resistant TB (MDR-TB), particularly if migrants originated in countries with high incidence of disease. It is important to ensure adequate access to health services promoting early identification, diagnosis and treatment.

Similar considerations apply in some countries to groups of internal or domestic migrants who move from rural to urban areas to seek employment. They may lack legal status and consequently do not have access to health services.

4.1.4 Cross-border populations

Cross-border populations are usually low-income and minority populations who tend to live in communities near a border and work in the neighbouring country/province, involving continuous movement across the border. They often perform services abroad without the intention or right to settle or seek permanent employment in the receiving country. These populations include unofficial cross-border migrants, manual workers, sex workers, minors (the orphaned and homeless) and also mobile occupational groups such as truck drivers, fishermen, seafarers and cross-border traders. They are considered illegal workers and are therefore excluded from services.

Cross-border drug procurement is an important issue, as drug availability is often different across the border; some drugs may be available over the counter, more affordable, or of dubious quality. It is important that TB programmes recognize both the advantages and the threats posed by this special situation. Effective monitoring of cross-border populations could provide a basic assessment of the TB risks and their sources. TB programmes should provide support from origin to destination and establish collaborative arrangements with TB programmes in the neighbouring country/province to facilitate direct observation of treatment and support to these patients (e.g. Mexico-United States combined treatment card; Thailand-Myanmar pink booklet).

4.2 Pockets of deprivation in wealthier countries

As TB has declined in many industrialized countries, so have efforts for TB case-finding at primary care level. The national TB control programmes in industrialized countries should recognize the increased risk of TB in deprived and vulnerable populations, and the need to target these groups with specific TB control activities. A rapid assessment of the TB situation in deprived communities will give sufficient information to plan special TB control services; and if performed with community involvement it could help overcome some of the distrust of the health services often encountered in deprived, ethnic or cultural minority communities. If the prevalence of HIV/AIDS is also high in these groups, national TB control programmes should liaise with national HIV/AIDS control programmes to provide appropriate counselling and care to these individuals.

4.2.1 *Ethnic minorities*

In many high-income countries the majority of TB cases now occur in ethnic minority communities who often congregate in deprived neighbourhoods within large cities. TB programmes should work actively to raise TB awareness among primary health-care staff, social services, teachers and other employees who work with ethnic minorities, community members themselves and the general public. Raising awareness in these communities will often require the availability of information leaflets and education materials in the appropriate language and culturally adequate.

In some countries, minority indigenous populations may face similar barriers to those encountered by immigrant ethnic minorities.

4.2.2 *Homeless people*

Homelessness occurs worldwide. Its main cause is the lack of affordable housing for the poor. Secondary causes include mental or physical illnesses, substance abuse and lack of education. There is a clear link between homelessness and poor physical health. Sleeping rough, in particular, exposes people to severe weather, poor nutrition and limited access to hygiene facilities. In industrialized countries, the rate of TB among the homeless may be 20 times higher than that of the general population.

Shelters are places of high ongoing TB transmission, including MDR strains. Homeless people have worse treatment outcomes (including mortality) and higher default rates than the general population. Follow-up of cases and identification of contacts are difficult, especially for those who live on the street at the time of diagnosis.

TB programmes should work with shelters and NGOs caring for the homeless in order to increase case detection. Incentives have been used to improve adherence to treatment and shorten prophylactic regimens. A competent referral system for homeless people is critical to coordinate efforts and ensure successful treatment. Social service institutions and shelters can be useful settings for screening and early diagnosis of TB and DOT provision for homeless people. All of these interventions illustrate the need for accessible social and health services for homeless people.

4.3 Injecting drug users

There were approximately 13.2 million injecting drug users (IDUs) worldwide in 2003, around 78% of whom were living in developing and transitional countries, mainly in Asia and Eastern Europe. Regardless of their HIV status, IDUs represent a population with increased risk of contracting TB as a result of a combination of social and demographic risk factors such as poverty, unemployment, homelessness, imprisonment, malnutrition and lack of access to health services. People living with addictions to other substances such as alcohol face similar risks and challenges.

The years of drug use are closely linked to the time spent in sites where TB is more easily transmitted; TB rates increase significantly with age, years of drug use, HIV infection and incomplete prophylaxis, so it is necessary to liaise with service providers to raise TB awareness and ensure continuous screening among these groups. Strategies such as incentives and peer counselling can increase adherence to referral services.

Once active TB is diagnosed, DOT should be offered in the same health facility where the patient receives other care (HIV/AIDS, chemical dependency treatment, etc.). Psychosocial support, adherence groups and day-hospitals could be offered to increase adherence to treatment. TB programmes should work with other programmes to offer comprehensive care. Integrated services for HIV/AIDS and TB facilitate monitoring, stimulate adherence to both treatments, simplify the management of possible problems and facilitate the development of joint strategies that maximize the effectiveness and coverage of both treatments.

If it is not possible to offer comprehensive TB and HIV/AIDS care, it is important to foster cooperation, ensure constant communication and set up a well-defined referral system between health professionals in the two programmes. This approach facilitates the adoption of compatible treatments and enables patients to obtain help in overcoming possible difficulties experienced during the course of both the treatments.

4.4 Prison populations

Since the 1990s, prisons have been increasingly recognized as incubators of TB and often associated with high TB rates, increased mortality and high rates of MDR-TB; more recently, the rise of HIV infection among prisoners could further raise the number of TB deaths and incidence of disease. Rates of TB in prisons are generally 10–50 times greater than in the general population. MDR-TB rates in excess of 20% have been recorded in prisons of the Russian Federation.

There is ample opportunity for transmission to go in either direction; multiple bridges exist between the imprisoned and the general communities. High prisoner turnover rates as they return to their communities upon release, millions of family visits per year and prisons' health and security staff are all prison–community conduits.

Political commitment is critical for establishing and maintaining TB programme links crossing the civilian and prison sectors. Released prisoners on TB therapy should continue their treatments in the community. Those entering a prison while on TB therapy must be rapidly identified so that adequate treatment can continue without interruption. Conditions in prisons are conducive to the rapid spread of TB; an active case-finding strategy focussed on screening at entry point and early detection of respiratory symptomatic cases should be implemented. For a prison TB programme to gain credibility it must develop a sustainable system of civilian–prison links (including human rights organizations). It is important that national TB control programme staff respect their colleagues in the prison system as equal partners and stakeholders, and work closely together.

4.5 Actions to consider

- Define special situations and vulnerable groups in the country/ region.
- Identify the groups concerned and their locations.
- Assess the problems these groups face in accessing health services.
- Establish priorities for action based on needs, feasibility, resources available and effectiveness of the measures to be taken.
- Examine current services available to the priority groups and identify current providers.
- Define strategies and measures to improve their access to TB services.
- Build partnerships with current providers of services for these groups.
- Plan a phased implementation of the measures selected.

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Chapter 5

Harnessing resources to deliver pro-poor TB services

This chapter outlines a variety of approaches that managers of national TB control programmes may explore to expand their access to and use of resources to advance pro-poor and equity-enhancing measures.

- *There are new funding options for TB control that go beyond the traditional short-term, TB-specific project approach.*
- *The wide range of global financing and partnership resources now available for poverty reduction, health systems' improvement and disease control offer both new opportunities and new challenges for TB control programmes.*
- *As part of these initiatives and approaches, support for scale-up and expansion of TB control activities also offers, directly or indirectly, support for pro-poor strategies.*

The chapter addresses five categories of resources – strategies, financial resources, institutional resources, human resources and technologies – and indicates how TB programmes may benefit from each.

A wider range of global financing and partnership resources is available today to pursue poverty reduction, health systems' improvement and disease control measures than at any other time in the recent past. To reach far more TB patients and vulnerable communities, it is critical that programmes take advantage of new opportunities for partnerships and financing. Unfortunately, access to these resources is not even across regions. Also, the effort involved in accessing new resources is substantial. One of the major challenges for national TB control programme managers today is managing central-level oversight and assistance for DOTS scale-up while handling a complex array of partnerships and funding streams. District health staff may also have more complex coordination responsibilities or opportunities. This chapter does

not explore these or management capacity issues, which are highly country-specific, but recognizes them as worthy of review and further discussion.

Five categories of resources are addressed below: strategies, financial resources, institutional resources, human resources and technologies.

5.1 Strategies

Rather than relying on special stand-alone TB projects to reach the poor and vulnerable population groups, national TB control programme managers can benefit from engaging in larger-scale strategies to expand and sustain access to health services, reduce poverty and build new partnerships.

5.1.1 Poverty reduction strategies (or poverty reduction strategy papers – PRSPs)

PRSPs are being developed by governments and their partners, principally the World Bank and the International Monetary Fund, to guide government investment, in many low- and middle-income countries. These mechanisms are used in some countries to pave the way for access to debt relief. The strategic documents are also being used as a guide for domestic financing as well as donor resources. PRSPs are meant to refocus attention on investments that will make a difference in reducing poverty and in increasing the social and economic situation of populations living in poverty. PRSPs should help to increase financing within the health sector, to reduce the threats to the health of the poor and to support health services assisting poor and vulnerable groups.

Increasing TB control's place in PRSPs

A recent analysis by the World Bank of the coverage of TB control in existing poverty reduction strategy papers (PRSPs)⁵ suggests the TB community, global and national partners have much work to do to expand recognition of TB control in these documents. Here is the abstract of the findings:

“Based on analyzes of PRSPs and interim PRSPs (I-PRSPs) of 16 high burden and high TB incidence rate countries, the inclusion of TB in PRSPs is generally low, with about 50% or more of the documents containing little or no

⁵ Pande A, Adeyi O, Weil D. *Putting tuberculosis control in the mainstream of development: how responsive are poverty reduction strategies?* Washington, DC, World Bank Department of Health, Nutrition and Population, 2004 (unpublished discussion note).

discussion of TB. As a result, the discourse on TB within PRSPs typically includes neither country-specific analyses of the linkages between poverty, economic development and TB, nor strategies, actions and resource requirements for TB control.

The findings show many missed opportunities for mainstreaming TB control in the development agenda in the countries. This situation needs to be addressed through several means, including the following:

- Better use of existing guidelines for addressing TB along with other major health problems in PRSPs.
- Preparation, dissemination and use of a toolkit for integrating TB into PRSPs, learning from a similar approach to HIV/AIDS.
- A more active and informed engagement of TB control programme managers and advocates in discussions with Ministries of Finance, Economic Development and Planning. This is crucial if the requirements for TB control are to be included in the Medium-Term Expenditure Frameworks, as part of broad sectoral priorities.”

Analyses of the impact of PRSPs suggest that these documents are not yet associated with major shifts in government investment in the health sector or the specific approaches proposed. Based on lessons learnt, more advocacy is now being done to link planning to resource allocation and stimulate government accountability on these points.

5.1.2 Innovative service delivery and community accountability mechanisms

Major recent global health strategy documents,⁶ which have focused on reaching the poor and improving population health, emphasize the need for governments to adopt innovative financing and contracting mechanisms. These aim to increase governments' engagement with a wider range of public or private providers, to build institutional accountability and to give voice to communities in need. TB control programmes have been successful in contracting with partners, in producing performance indicators that are transparent and can be compared across communities, and in stimulating community participation. TB control programmes and their partners could do more to document and promote them and to integrate them within broader programmes. This would encourage financing and enhance visibility and sustainability.

⁶ These include the products of the 2003 WHO Commission on Macroeconomics and Health, the World Bank *World development report 2004* and related documents on reaching the health-related MDGs.

*5.1.3 Seven strategies recommended by the second ad hoc Committee on the TB epidemic*⁷

These strategies, which aim to expand effective coverage and impact of TB control, especially for poor and vulnerable groups, dovetail with the overarching development and investment strategies noted above. Specifically, they are to: (1) consolidate, sustain and advance achievements; (2) enhance political commitment; (3) address the health workforce crisis; (4) strengthen health systems, particularly primary care delivery; (5) accelerate the response to the TB/HIV emergency; (6) mobilize communities and the corporate sector; and (7) invest in research and development to shape the future. Some of these are focused on the global community but most centre on response from national and local authorities.

5.1.4 National Stop TB partnerships

National partnerships to stop TB can provide a framework for collaboration, communication and expanding access to care, integrated within broader government and civil society development agendas.

Partnerships at country level

In Uganda, a national Stop TB partnership has been launched to build a network to strengthen district-level TB control capacity. All external donors to the national TB control programme are supporting this government-led collaboration. Under recent health reforms, districts are now the locus for health service planning and management as well as for community outreach. The National TB and Leprosy Control Programme has been a pathfinder in engaging the community in treatment and care through its community-based DOTS delivery approach. Subdistrict health workers are now helping to supervise community treatment supervisors as well as the clinic-based staff. Community-based DOTS has been shown to improve treatment success rates and reduce costs of care in rural and urban areas where it has been launched in sub-Saharan Africa. Brazil, Canada, Mexico and Pakistan are among other leaders in launching national partnerships to stop TB with a focus on community mobilization.

⁷ Report on the meeting of the second ad hoc Committee on the TB epidemic. Recommendations to Stop TB partners. Geneva, World Health Organization, 2004 (WHO/HTM/STB/2004.28; available at <http://www.stoptb.org/documents/TB-REPORT-24pages.pdf>).

5.2 Financial resources

The following are examples of ongoing and new initiatives to finance improved health outcomes in low-income countries or among the poor specifically, including those focused on TB control. Additional resources are available via partnerships with new institutions as described in section 3 below.

5.2.1 Sector-wide programme budgets and medium-term expenditure frameworks (MTEFs)

Functioning as tools to help unify both financing and planning from external and domestic sources under one government-led framework, MTEFs are meant to ensure that all priorities are identified, that financing is secured to meet needs and to reduce parallel project financing. National TB control programmes in countries such as Bangladesh, Cambodia, Malawi, Mozambique, Uganda and the United Republic of Tanzania produce their plans within the framework of sector-wide programming. Most MTEFs and sector programmes are paying increasing attention to financing programmes and interventions that address poverty. It is therefore important for national TB control programmes to explicitly address how their work will be reaching out and serving poor populations.

5.2.2 Poverty reduction strategy credits (PRSCs)

Financing packages provided by the World Bank, PRSCs support the implementation of poverty reduction strategies in some countries. These credits provide broad budgetary support for multiple sectors within government rather than earmarked health programme or project financing. Several PRSCs in development are increasing investment in the health sector and linking such support to performance indicators associated with the MDGs. Given the range of MDGs, it is possible that TB indicators may not be among the chosen measures, unless they are proactively promoted by national TB control programmes, ministries of health and their partners.

5.2.3 Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM)

By design and volume of resources available, the GFATM offers an unprecedented opportunity to finance innovative strategies to expand TB control programmes. Many recipients are including components for social mobilization, social support and treatment enablers, NGO engagement and other mechanisms well beyond more traditional plans from the first phases of DOTS expansion. Also, the GFATM is defining criteria to enable

financing in high middle-income countries if the focus is provided to addressing global public goods and/or vulnerable populations.

5.2.4 Bilateral donors

Most bilateral donor agencies are now expanding priority given to poverty-focused development projects within and beyond health. This attention has opened up important funding opportunities for TB and poverty research, and action in Malawi, social assessment and DOTS expansion in poor areas in China and NGO engagement in India, among other examples.

5.2.5 FIDELIS – Fund for Innovative DOTS Expansion through Local Initiatives to Stop TB

Hosted by the International Union Against Tuberculosis and Lung Disease,⁸ FIDELIS invites, reviews, provides seed funds and monitors projects that aim to achieve more cured TB patients through new approaches. Priority is given to projects that improve coverage of individuals and communities with limited access to health services, but the funding rules are stringent and easier for high TB burden countries to fulfill. In 2003–2004, 31 projects were funded in 13 countries.

5.2.6 Social funds

Social funds have been established in many countries to increase the social safety net and extend services for low-income populations. TB control interventions are an attractive but underrepresented area for fund investment, considering the populations served, the community risks of poor TB control and the measurable outcomes to be achieved. DOTS services and social support for patients were supported effectively under an emergency social fund in Peru during the 1990s. An advantage of incorporation in these programmes are that they are longer-term mechanisms with domestic financing (sometimes financed by external loans or credits) and do not rely on project funds.

5.2.7 Social insurance

Although wide access to health insurance schemes is still beyond the reach of most poor populations, some new national and community-led initiatives are under way. A few include coverage for TB services, to reduce patient costs and to avoid unofficial payments. The Philippines social insurance scheme, for example, includes TB diagnosis and care.

⁸ <http://www.fidelistb.org>

5.3 Institutional resources

National TB control programmes collaborate with many other departments and levels within ministries of health. These include: provincial health authorities, district health authorities, district health boards, central medical stores, other programmes, prisons, military institutions and schools. Often, some of these other entities have taken the lead in developing targeted interventions to reach poor and vulnerable populations and national TB control programmes could take advantage of other special measures within these activities.

The following table gives some illustrations of other institutions that might have special capacity or initiative to serve these populations.

	Type of institutions
Social welfare	Social welfare agencies International and local Red Cross & Red Crescent Societies Local church organizations; Social funds (see 5.2.6 above)
<i>Example</i>	In Eastern Europe and the Russian Federation, USA, Latin America and Cambodia, numerous examples of TB patients being included among the beneficiary pools for food, housing, pensions or other social support during their treatment
Emergency assistance	WHO; World Food Programme; Office of the United Nations High Commissioner for Refugees; Médecins Sans Frontières; International and local Red Cross and Red Crescent Societies
<i>Example</i>	See Chapter 4
Urban or rural development	Domestic municipal, urban, municipal or rural development agencies; World Food Programme; International Food Policy Research Institute
<i>Example</i>	In Bangladesh, a major new push for DOTS expansion focuses on expanding national TB control programme partnerships with urban health projects, major urban health institutions & NGOs (e.g. clinic networks) and financing instruments to expand DOTS services in the most concentrated slum and squatter settlements where their major NGO partners, Bangladesh Rural Advancement Committee and Damien Foundation, had not previously engaged.
Nongovernmental organizations targeting poor and vulnerable populations	Health-focused NGOs; NGOs focused on serving poor communities; NGOs focused on specific vulnerable subpopulations, e.g. women and children; ethnic minorities; migrant workers, etc. District boards with community membership
<i>Example</i>	See box below

Community-driven district or local health boards District Boards with community membership that are given authority to define and/or monitor health plans and budgets

Example In Burkina Faso and other countries, such boards can influence financing for local health services or outreach efforts and attention to the TB burden and solutions will be important

Academic institutions and schools Medical and/or public health schools
Community-based care programmes
Field-based population or epidemiology “lab” programmes (e.g. in Bangladesh, India, Senegal, etc.)
Development institutes; Primary and secondary schools

Example Various examples in Malawi, South Africa; Haiti, Bangladesh, India – all providing technical support, and/or access to community-based health projects or ongoing analysis on health determinants, epidemiology, health intervention monitoring or evaluation. There is great under-utilized potential in linking with school systems for mobilizing school children in communicating information about TB given rising levels of enrollment among the poor.

Special focus: involving nongovernmental organizations

As the poorest and most vulnerable populations may be those most deprived of access to public health services, nongovernmental organizations (NGOs) often help to fill the gap. The approach below is based on experiences gained in the first phase of the Danish International Development Agency-supported Revised National TB Control Programme (RNTCP) in Orissa State in India (1996–2003). It was implemented in 14 predominantly tribal districts with a population of nearly 14 million. Around 85% of the people live below or just around the official poverty line, and literacy levels are low. The central level of the RNTCP has formalized its recommendations for government engagement with NGOs and has offered a guide that can serve as an important example for other countries. The approaches are further modified and adapted by state authorities and collaborators.⁹

The manager of the national TB control programme or local dedicated officer must be clear about the types of activities for which the programme would like NGO involvement, the support that the programme

⁹ *NGOs and TB control. Principles and examples for organizations joining the fight against TB.* WHO South-East Asia Regional Office, 1999 (SEA/TB/213).

will be able to provide to the NGOs and the requirements that the NGOs will be expected to meet. Engagement can involve everything from engagement in public information and social mobilization campaigns, through detection of suspects and referral, to a full range of service provision options.

The national TB control programme manager should have a system for screening NGOs to assess their ability and interest to collaborate effectively with the NTP. Aspects to consider would include membership, service coverage, number and skills of persons available to carry out TB-related activities, current activities, acceptance in the communities where they are working, management capacity and transparency, and expressed willingness to participate.

Once the participation of an NGO has been agreed upon, it is useful to have a written agreement specifying the geographical area covered or population served, TB-related activities, reporting requirements and expected results. If the collaboration involves direct financing of NGO staff or operations, provision of drugs or other materials, the memorandum of understanding or contract may need to be more explicit.

If the national TB control programme does not have the capacity to carry out the training and coordination of NGO activities, this function could be delegated to an umbrella organization of NGOs or a lead NGO that is capable of managing it. In a number of countries, such as India, TB programmes and NGOs have found ways to interact effectively, maintain communications at staff and volunteer levels, and with clients.

5.4 Human resources

Among the greatest challenges today in advancing the health-related MDGs is overcoming the critical deficiencies in human resources in the public health sector in most low-income countries, and especially in Africa. The crisis in availability of health staff once again places a special burden on services seeking to reach the poorest. The factors that are most de-motivating for health workers exist in the poorest regions or within the facilities serving the most vulnerable populations. Overall structural and financial changes are needed to improve the availability, distribution and motivation of health workers. Some recent country examples show how programmes might mobilize more participants in DOTS delivery.

5.4.1 Expanding public sector personnel for primary health-care delivery

In Peru, during the mid-1990s, controlling the TB epidemic was a high government priority, and the well-managed national TB control programme was scaling up DOTS with impressive results and impact on incidence reduction. Peru had a 70% urban population at the time, with 45% of the nation's people residing in the crowded conditions of the Lima–Callao sister cities. The programme's objective to dramatically expand TB case-detection was accomplished through a mobilization of all health workers, from nurses and physicians to laboratory technicians and outreach auxiliaries. All of these health workers were prepared to promote community awareness of TB and to identify patients with respiratory symptoms among clinic clients, regardless of the initial presenting complaint. Further to this, the laboratory network was improved. Alongside these TB-specific efforts, a large cadre of general health clinic staff was recruited to run ambulatory health services, thereby doubling the number of ambulatory consultations in rural and periurban areas.

5.4.2 Community health workers

In Asia, there are several recent examples of national TB control programmes that have formed partnerships with larger programmes to develop cadres of community health workers. These workers address maternal and child health as well as other public health priorities. They generally come from the communities served and potentially have the capacity to reach more vulnerable patients in those communities through geographical access, cultural and/or gender bonds and outreach to households for prevention or care. One example is the nation-wide use of *barangay* health workers in the Philippines, which has contributed to the scale up of DOTS and high treatment success rates in the Philippines. Other examples are the high priority given to the *Lady Health Worker Programme* in Pakistan and its use as a major lever in DOTS expansion there; new interdisciplinary primary care outreach to indigenous communities in Bolivia, or a variety of cadres used in various states in India. Some of the lessons learnt in motivating and sustaining the engagement of either salaried or non-salaried community health workers in TB control efforts, especially in sub-Saharan Africa, are included in the WHO guide to *Community contribution to TB care: practice and policy* (see selected references).

5.4.3 Public-public and public-private mix models (PPM) in TB control

A major strategy in expanding access to DOTS services today is the engagement of private providers in national TB control programmes. There is strong evidence from all regions to show that poor people consult private providers, as well as district and tertiary hospitals, for diagnosis and care for a range of reasons. These include physical accessibility, social acceptability and perceptions of quality. Several WHO documents provide evidence-based guidance on the resources, coverage and skills that these individuals and institutions can provide as well as on how to manage the relationships to achieve effective results. Experiences in Bangladesh, China, India, Indonesia, Kenya and the Philippines are yielding published results, and future work involves disaggregating which income categories or communities benefit most. A new WHO guide is being developed on scaling up these approaches. WHO has also produced guidelines on TB in the workplace, providing insights on mobilizing corporate sector and large-scale employers in the fight against TB.

5.5 Technologies

Many national TB control programmes can do more to access new technologies that are being developed or rolled out in low or middle-income countries, to advance TB control objectives. Some major priorities include the following:

5.5.1 New research and development (R&D) for diagnostics, drugs and vaccines in TB control

TB programmes can participate more actively in calls for expanded financing of R&D efforts, especially for tools that will increase access by the poor and vulnerable. National TB control programmes can also help ensure that any clinical or field effectiveness trials in their countries provide opportunities for serving the poor. As new diagnostic methods and equipment may be the first new tools to become available, national TB programmes should help ensure that the application of the tools can extend beyond urban specialist institutions and mobilize support for decentralized access as quickly as possible.

5.5.2 *New communication tools*

Some developing countries are being provided with multiple opportunities via donor or industry initiatives to enable access to new communication technologies to help further development-oriented objectives. National TB control programmes could help promote the major benefits of expanded access to mobile phones, computer hardware, software or Internet access or personal digital assistants, to help patient outreach and follow-up, monitoring and evaluation and/or operational research on expanding services for poor and vulnerable populations.

5.6 *Actions to consider*

Managers of national TB control programmes can take the following steps to help mobilize new resources to address the needs of poor and vulnerable groups.

- Ensure that the national TB control programme has provided all requested inputs into poverty reduction strategies or health sector programmes and plans and, if not yet requested, seek means to encourage inclusion of TB inputs and/or indicators.
- Identify any new partnerships, financing mechanisms, or development initiatives under way in your country.
- Prioritize the mechanisms or entities that might be most feasible to access and which might provide the greatest added value in increasing effective access to DOTS services.
- Based on this process, set a first plan (e.g. next 6 months) for who will be responsible for reaching out to the selected new partners or for developing proposals for new resources. Those responsible could be within your national TB control programme team or from among your partner agencies.
- Assess who are the likely three external and local stakeholders with the most influence to engage new partners, and involve them in this planning process.

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Chapter 6

Assessing the pro-poor performance of TB services and impact of pro-poor measures

This chapter provides guidance on monitoring the impact of pro-poor measures adopted by national TB control programmes. Important considerations are:

- *Global targets for TB case detection and treatment success rates may mask considerable inequity within countries with respect to access to TB services.*
- *The impact of pro-poor measures has to be assessed in the context of the distribution of TB in the population and the pro-poor performance of the TB services.*
- *The global targets for rates of case detection and successful treatment should be considered specifically for the poor and vulnerable, to provide a baseline for the assessment of performance and impact in these groups.*

The chapter addresses the assessment of TB in the population and the profile of the beneficiaries of DOTS services; the identification of poverty-related inequalities among DOTS beneficiaries; and the assessment of the impact of pro-poor interventions, based on these parameters.

TB programmes that begin to address poverty explicitly through the kind of pro-poor actions outlined in this document will want to assess their progress and the impact of the pro-poor measures that they adopt. The key constraint in this kind of monitoring is the human resources required to undertake the necessary socioeconomic studies and analyses. Very few TB programmes will directly employ staff members with all the skills, experience and time to undertake this kind of work and may need to seek people with appropriate skills through strategic alliances with local academic institutions. Nonetheless it is important for TB programmes to understand the ways in which pro-poor performance can be assessed to inform:

- a) the way in which they decide to implement pro-poor actions; and
- b) how they decide to access any additional human and other resources.

6.1 Global equity targets

The success of a TB control programme is measured in terms of the TB case detection rate and treatment success rate in the population served. The global targets for these indicators are to detect at least 70% of smear-positive TB cases and to successfully treat at least 85% of those detected. These global targets have been adopted as the national targets by most countries applying the DOTS strategy. The indicators are aggregate measures that capture the status of TB control of districts, nations or the world. They can, however, mask tremendous variance and inequity within countries, with respect to access to and quality of TB control services. In a country where 30% of the population lives in poverty, for example, it is possible to reach the targets without providing DOTS to any of the poorest individuals. From a public health perspective, this leaves a concentrated pool of infection and is inconsistent with the aims of TB control. From both an equity and an economic perspective, this would be a similarly unacceptable scenario. A logical extension of the global targets is to monitor the distribution of benefit from DOTS by aiming to:

- detect at least 70% of smear-positive TB cases among the poor (and/or other deprived minorities): "case detection rate among the poor";
- successfully treat at least 85% of TB cases detected in the poor and vulnerable groups: "treatment success rate among the poor".

6.2 Assessing the distribution of TB in the population

To monitor the indicators above it is important to understand the distribution of TB in the population (e.g. the percentage and geographical location of TB patients who are poor) and to be able to discern who, among the TB patients identified, are poor. The poor, rather than the full population, will become the denominator for calculations of rates. To determine the distribution of TB disease within the population, a TB prevalence survey that includes information on patient socioeconomic status would provide the optimal data. However, few countries have conducted such studies. Other less precise methods of estimating the distribution of TB within the population may be necessary. These methods

involve linking existing socioeconomic data with routinely collected TB programme data. These include estimations using:

6.2.1 Existing household survey data.

Some Demographic and Health Surveys (DHS)¹⁰, Living Standards Measurement Study (LSMS) household surveys¹¹ and other household surveys include questions about known TB disease within households or extended cough as the symptom of recent illness in the household. These surveys include extensive socioeconomic and demographic information. They can therefore be used to evaluate the percentage of patients with known TB or experiencing cough who are relatively poor. They can also be used to evaluate the geographical distribution of disease or symptoms.

6.2.2 Census data

Analysis of census data frequently includes a mapping of poverty or calculation of the prevalence of poverty by district or other geographical region. Other proxy indicators of poverty, such as education level, may be available within the census data. The prevalence of poverty or poverty score can be plotted against case notification data for each district. Using routine TB case notification data, an evaluation of the association between district level poverty and case notification is possible. If TB programme performance is similar throughout the country, this will be a reasonable proxy for assessing the distribution of TB disease in poor compared with non-poor districts. However, if poor districts have fewer human and financial resources to support TB control activities, this will need to be taken into account as case notification rates will be artificially low in poor areas.

There are also several ways to discern who is poor among TB patients. In formal economies, it may be possible simply to request data on income or household expenditures on non-food items from patients. In less formal economies, income is often difficult to calculate as it may include bartering and non-cash payments. When it is difficult to measure income, asset-based wealth indices can be created using household survey data. These indices can be developed such that a minimal number of questions about the ownership of household items or household attributes (e.g. type of flooring) can be asked, responses scored and a summary score of wealth attained.¹² Participatory Poverty Assessments (PPA) using qualitative methods such as focus group discussions, wealth ranking and social mapping can be particularly helpful in deciding the

particular household survey questions that are most discriminatory and, therefore, best to include.¹³ The resulting wealth scores allow for a comparison of the relative wealth of patients compared with the total population of a country. Other methods for scoring wealth are detailed in papers by Martin Ravallion.¹⁴

When the indicator is not income poverty but other forms of marginalization, such as ethnicity, employment, gender or age, data can be captured directly during interactions with patients and may be part of routine data collection. The hierarchy for variables such as "ethnicity" or "employment" must be determined to enable some ordinal ranking of the degree of impoverishment associated with a certain ethnicity or type of employment. Specifically commissioned qualitative research such as PPA is particularly useful in capturing local concepts of poverty and marginalization, and carries the advantage that it purposefully sets out to include the poor in describing their circumstances. This is helpful not only in measuring impact but also in developing interventions.

6.3 Assessing the beneficiaries of DOTS services

TB programmes routinely collect data on the sex and age of patients undergoing treatment. Cohort analysis summarizes, for example, how many female patients were detected compared with male patients. These data can be compared with estimates of how many women have TB in the general population, and the resulting discrepancy reflects the women who are "missing cases". Other socioeconomic data are not routinely collected, making it difficult to assess if the poor are being detected, referred for diagnosis or successfully treated proportionately. There are a number of options, which may be implemented singularly or in combination, to capture socioeconomic data among TB suspects and patients:

(a) Add a limited number of socioeconomic variables to existing routine data collection tools. As already discussed, qualitative research can be useful in pointing out which variables are most relevant in a given context. It is important not to overburden the TB programme with the responsibility for collecting too many additional sets of information. If additional socioeconomic variables are added to routine data collection, it may best to do this intermittently or to seek inputs (including staff time) from other partners (such as the ministry of health department responsible for information systems).

(b) Conduct special studies within facilities to interview patients seeking or receiving care. The methodology employed in these studies could be quantitative (such as questionnaires) or qualitative (such as in-depth interviews or critical incidents narratives¹⁵) or a mixture.

(c) Conduct qualitative research with communities to capture community perceptions about who benefits from TB services and who does not. This approach is less costly and time-consuming than, for example, a community-based survey, and can use key-informant interviews and focus-group discussions to draw out dominant themes.¹⁶

A recently compiled WHO compendium¹⁷ provides a definition of TB equity indicators that can be used in special studies and/or considered for use in programme activities. The definition is: the percentage of patients notified under DOTS who represent subpopulations, namely (i) poor (ii) rural (iii) ethnic groups and (iv) women, relative to the percentage of the population accounted for by these populations. The compendium provides additional information on measurement of the indicator.

6.4 Identifying poverty-related inequalities

The baseline for impact assessments rests on the determination of whether there is a gap between the socioeconomic profile of all cases and those being reached by DOTS services.

Before launching activities to specifically target the poor, it is important to document that there are indeed poverty-related disparities in case notifications and treatment outcomes. To assign the appropriate level of priority and resources to addressing disparities, it is useful to understand the magnitude of these disparities. Exploring "rate differences" is a simple method to evaluate disparities that would compare, for example, case notification rates among the poorest segment of the population with those of the wealthiest segment of the population.

By comparing the poor with the non-poor, a programme is implying that its aim is to raise the level of care of the poorest to the level of the wealthiest. While this is certainly the optimal situation, it may simply not be attainable in the medium term given the many other poverty-related factors that influence disease progression and patient behaviour. A more

¹⁰ See www.measuredhs.com for survey forms, data sets and country reports.

¹¹ See www.worldbank.org/lms for survey forms, data sets, country reports and analytical guidelines.

attainable medium-term goal may be to raise the level of care of the poor to the average level of care in the country. As the TB programme's performance improves overall, the indicators should similarly improve among the poor. From an analytical standpoint, this is also a simpler approach. In this case, all TB patients are used as the "reference group." Routine data collection and cohort analyses can be used as the benchmarks for case notification and treatment outcomes. The only disaggregated data required are for the poorest patients.

6.5 Assessing the impact of pro-poor interventions

To assess the impact of pro-poor measures is to evaluate if any change or improvements can be attributed to an intervention. It is therefore necessary to have solid baseline data reflecting the situation before the intervention was introduced. The collection and preparation of these data are described above. The same methods can be used to enumerate the benefits to the poor and poverty-related disparities following the introduction of a pro-poor intervention. The difference between the baseline and the follow-up evaluation provides an impact assessment. Alternatively, a programme can try to answer the question, "what would the situation have been if the intervention had not been introduced?" To achieve this, a comparison group, district or country that did not employ the intervention may need to be identified and used for the analysis.

The type of impact evaluation may be driven by the intended use of the data. Some of the uses include: advocacy to draw attention to the issues of TB and poverty, resource mobilization, monitoring the contribution of the intervention to overall case detection rates and monitoring progress towards equity targets. Some of the areas that a programme may wish to monitor include:

- (1) changes in the case notification rate among the poor;
- (2) changes in the overall case detection rate;
- (3) changes in the treatment success rate among the poor;
- (4) changes in the overall treatment success rate;
- (5) mitigation of the impoverishing effects of TB;
- (6) reduction in treatment-seeking delays and days away from work;

¹² Indices exist for some countries. (See www.worldbank.org/poverty for existing indices and methods for created asset-based wealth indices.)

¹³ Chambers R. *Whose reality counts? Putting the first last*. London, Intermediate Technology Publications, 1997.

¹⁴ Ravallion M. *Poverty comparisons. A guide to concepts and methods*. Washington, DC, World Bank, 1992 (Living Standards Measurement Study Working Paper No. 88); Ravallion M, Chen S. Measuring pro-poor growth. *Economics Letters*, 2003, 78:93–99.

- (7) reduction in patient expenditures for care-seeking;
- (8) cost-effectiveness of the pro-poor approach;
- (9) distribution of financial resources among poor/non-poor areas;
- (10) impact of additional financial resources on case detection and treatment success.

(1) and (2) can be used to evaluate the attributable benefit of this intervention on case notification: the contribution of the pro-poor approach to overall progress; (3) and (4) can be used to evaluate the attributable benefit of this intervention on treatment success: the contribution of the pro-poor approach to overall progress.

As noted in the introduction to this chapter, the key constraint in equity monitoring is the human resources required to undertake the socioeconomic studies and analysis outlined. TB programmes may consider the creation of strategic alliances with local academic institutions or even employing social scientists within the programme to undertake this work (see Malawi case study).

6.6 Actions to consider

To facilitate the ongoing monitoring of poverty-related inequalities and the impact of pro-poor interventions, TB programmes should:

- harness the human and other resources required for equity monitoring through alliances with partners (such as local and international academic institutions);
- consider including socioeconomic variables in routine data collection and analysis;
- ensure TB-related questions are included in DHS, LSMS and other household surveys and analyses;
- ensure that socioeconomic questions are included in TB prevalence surveys;
- conduct periodic studies of care-seeking behaviours, diagnostic delay and use of DOTS in health facilities – with linked socioeconomic data;
- conduct qualitative assessments among community members and TB patients about who benefits from TB services and who does not.

¹⁵ Squire SB et al. 'Lost' smear-positive pulmonary tuberculosis cases: where are they and why did we lose them? *International Journal of Tuberculosis and Lung Disease*, 2005, 9(1):1–7.

¹⁶ Kikwawila Study Group. *Qualitative research methods: teaching materials from a TDR workshop*. Geneva, UNDP/World Bank/WHO Special Programme for Research Training in Tropical Diseases (TDR), 1994 (Resource Paper No. 3).

¹⁷ *Compendium of indicators for monitoring and evaluating national tuberculosis programs*. Geneva, World Health Organization, 2004 (WHO/HTM/TB/2004.344).

Case study: the Malawi experience in developing the capacity to undertake and respond to assessments of the pro-poor performance of TB services

On the basis of a long-established DOTS programme, the Malawian national TB control programme collaborated with the Department of Sociology, University of Malawi and the Liverpool School of Tropical Medicine in 1999 to undertake a number of assessments of the extent to which TB services in periurban Lilongwe were serving the needs of the poor. The key findings of these studies were as follows:

- the poor were spending proportionately more of their income on achieving a TB diagnosis than the non-poor;
- the poor experienced longer delays in achieving a TB diagnosis than the non-poor;
- poverty is highly gender-related in this context, and poor women face the most difficult barriers in accessing TB services.

The national TB control programme responded to these findings by including the following in its five-year development plan 2001–2006:

- Creation of two new social scientist positions within the national TB control programme, one to focus on monitoring and evaluation of equity within TB services (including integration of patient and community perspectives) and one to integrate total quality assurance methods to improve the responsiveness of services to the needs of poor patients.
- Development of a new communication strategy using targeted methods and messages for poor and non-literate populations.
- Continuing the collaboration with local and international academic institutions to pilot-test and monitor interventions aimed at shortening diagnostic pathways for the poor.

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Annex – Practical steps to address poverty in TB control

Steps involved	Factors/categories to consider	Actions to consider
<p>CHAPTER 1</p> <p>Identification of the poor and vulnerable groups in the country/region served by the national TB control programme</p>	<p>Groups and situations including:</p> <ul style="list-style-type: none"> – unemployed – homeless people – gender-related discrimination – marginalized ethnic groups – people in remote locations – urban poor – special groups (see Chapter 4) 	<p>Establish the profile of poor and vulnerable groups in the country/region using:</p> <ul style="list-style-type: none"> – government (or other) data on the prevalence and distribution of poverty and social vulnerability and on poverty-reduction plans – information on which types of health care providers are used by poor and vulnerable groups – locally conducted surveys on the socio-economic status of TB patients and poverty-related disparities – information on any adaptations already made in DOTS delivery to serve poor and vulnerable groups in the country
<p>CHAPTER 2</p> <p>Identification of the barriers to accessing TB services faced by the poor and vulnerable groups in the country/region</p>	<p>Economic barriers:</p> <ul style="list-style-type: none"> – complexity of pathway to access care – costs of care-seeking <p>Geographical barriers: distance from TB services</p> <p>Social and cultural barriers:</p> <ul style="list-style-type: none"> – stigma – fear of losing work – lack of knowledge of TB and TB services – gender-related factors – lack of health system responsiveness <p>Health system barriers:</p> <ul style="list-style-type: none"> – staff attitudes to poor patients – effect of decentralization on peripheral services 	<p>Assess economic barriers by examining: whether the organization of the TB services simplifies the health care pathway; whether diagnostic and treatment services for TB are well integrated in general primary care facilities; whether treatment observation requires patients to make multiple visits; which services provided by the national TB control programme patients are required to pay for</p> <p>Assess geographical barriers by identifying areas where patients have to travel long distances or over difficult terrain to reach TB services</p> <p>Assess social and cultural barriers by identifying areas and population groups in which TB services are underutilized; identification and analysis of the principal barriers to accessing TB services which affect poor and vulnerable groups</p> <p>Assess health system barriers by investigating staff attitudes towards poor patients; assessing whether decentralization leads to strengthening of TB services at primary care level</p>

Steps involved	Factors/categories to consider	Actions to consider
<p>Identification of potential actions to overcome the barriers to access</p>	<p>Adapting the national TB control programme plan to address the needs of poor and vulnerable groups, including specific measures to address economic, geographical, social/cultural and health system barriers.</p> <p>Deciding country-specific priorities for poor interventions, taking account of needs, resources, feasibility, and effectiveness of the measures envisaged</p>	<p>Address economic barriers by: integrating TB services within primary care provision; encouraging pro-poor PPM DOTS; promoting TB control in workplaces; improving the coverage of smear microscopy networks; avoiding user-fees and provision of free smear microscopy and treatment; providing food; arranging social security</p> <p>Address geographical barriers by: extending diagnostic and treatment services to remote regions and/or bringing poor patients from remote regions to TB services; providing free transport; developing an appropriate community-based TB care model</p> <p>Address social and cultural barriers by: engaging former TB patients and TB support groups to advocate for TB services and encourage community mobilization; ensuring that health staff attitudes and behaviour do not reinforce stigma; advocating for legal frameworks to protect against loss of employment because of TB; ensuring that the TB health promotion plan takes account of the specific needs of poor and vulnerable groups; ensuring that gender-related needs are addressed in TB control activities; providing psychological support in the community; considering cooperation with traditional health providers</p> <p>Address health system barriers by: adapting health care facility schedules to cater for those with fixed working hours; developing communication skills among health care staff and discouraging discrimination against poor patients; using total quality management to ensure that services remain responsive to the needs of the poor; encouraging community mobilization and demand for TB services among the poor; engaging in health service decentralization to ensure capacity strengthening in less well served areas and TB control as a district-level priority</p>

Steps involved	Factors/categories to consider	Actions to consider
Situations and population groups requiring special consideration	<ul style="list-style-type: none"> – Migrant populations: refugee communities, asylum seekers, economic migrants and displaced populations, cross-border populations – Pockets of deprivation in wealthier countries: ethnic minorities, homeless people – Injecting drug users – Prison populations – Any other deprived population groups in the country 	<ul style="list-style-type: none"> – Define the special situations and vulnerable groups in the country/region – Identify these groups and their locations – Assess the problems they face in accessing TB services – Establish priorities for action based on needs, feasibility, available resources, and effectiveness of the interventions – Examine current services available to the priority groups and identify current health care providers – Define strategies and measures to improve access to TB services by the poor and vulnerable groups – Build partnerships with current providers of services for the vulnerable groups – Plan a phased implementation of the measures selected
Harnessing resources for pro-poor TB services	<ul style="list-style-type: none"> – Available strategies to engage in broad initiatives to improve access to health services – Sources of funding for improvement of health outcomes – Institutions offering additional financial and other resources – Human resources to expand the public and private sector involvement in TB services – Technologies to enhance efficiency and effectiveness of TB services 	<ul style="list-style-type: none"> – Identify any new partnerships, financing mechanisms, human resources and tools or technologies that might be available – Assess the feasibility of mobilizing and maintaining these resources – Prioritize which existing mechanisms might offer the greatest benefits in the short and medium term – Identify new resources to target for mobilization within the next six months, and within the next two years – Identify the three most influential external and local stakeholders who could help to address priority needs

Steps involved	Factors/categories to consider	Actions to consider
Assessment of the pro-poor performance of the national TB control programme and the impact of pro-poor measures	<ul style="list-style-type: none"> - Targets for TB control in the poor - Distribution of TB in the population - Beneficiaries of DOTS services - Poverty-related disparities - Assessment of impact of pro-poor measures 	<p>Facilitate monitoring of poverty-related inequalities and the impact of pro-poor interventions by:</p> <ul style="list-style-type: none"> - Harnessing the human and other resources required for equity monitoring through alliances with partners - Considering the inclusion of socio-economic variables in routine data collection and analysis; ensuring that TB-related questions are included in DHS, LSMS and other household surveys - Ensuring that socio-economic questions are included in TB prevalence surveys - Conducting periodic studies of care-seeking, diagnostic delay and use of DOTS in health facilities, with linked socioeconomic data - Conducting qualitative assessments among community members and TB patients about who benefits from TB services and who does not

USEFUL ADDRESSES

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WHO Regional Office for the Western Pacific
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Network for Action on TB and Poverty Secretariat
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World Bank

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Poverty Reduction Strategies: prsp@worldbank.org

For analysis on health and PRSPs, see <http://www.who.int/hdp/database/>

Web site: http://www1.worldbank.org/hnp/Tuberculosis/tb_index.asp

Web site including health and poverty, TB & HIV/AIDS:

<http://www.WorldBank.org/hnp>

Other web site: <http://www.developmentgoals.org>

Management Sciences for Health (MSH)

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For the full database and reports on joint MSH/Stop TB/WHO/World Bank work reviewing use of enablers and incentives in TB control, go to www.msh.org/rpmpplus/tb and click on *incentives and enablers*.

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Web site: <http://stoptb.lpipserver.com/?tbp>

IEC Resource Centre from the Government of India
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