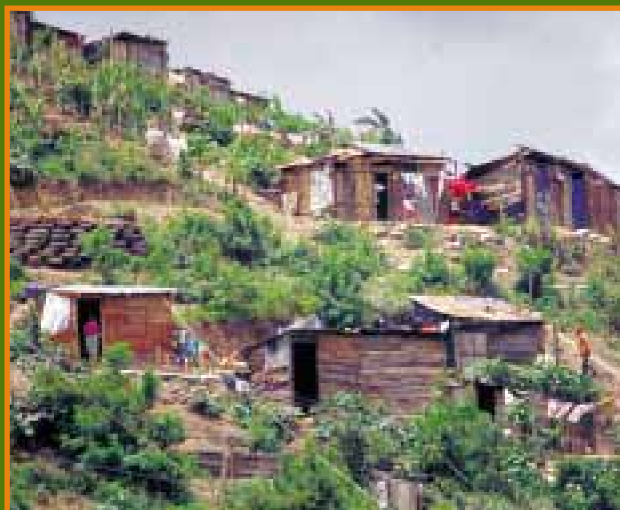
ADDRESSING POVERTY IN TB CONTROL



OPTIONS FOR NATIONAL TB CONTROL PROGRAMMES

World Health Organization

WHO/HTM/TB/2005.352

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PREFACE

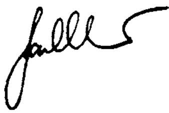
Throughout the world, poor people and those from disadvantaged social groups suffer more illness and die sooner than the more privileged. Poor and socially excluded people face greater exposure to many health threats, and when they fall sick they are much less likely to receive adequate care. Social 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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ACKNOWLEDGEMENTS

Addressing poverty in TB control: options for national TB control programmes was prepared jointly by the WHO Stop TB Department and the Stop TB Partnership, particularly through the Network for Action on TB and Poverty Secretariat. The text was drafted by a writing committee composed of specialists in the subject areas included in the document, with contributions from other invited experts. The draft text was reviewed by experts from different stakeholder organizations; the final version was completed by a working group of authors and reviewers. Preparation of the document was coordinated by Lindsay Martinez. WHO gratefully acknowledges the contributions of the following:

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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*

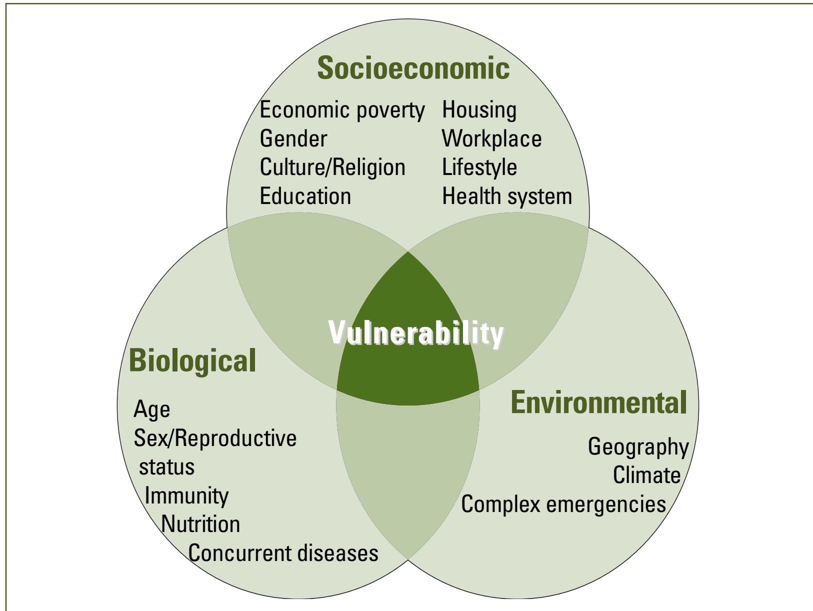
The World Bank also recognizes that "poverty encompasses lack of opportunities (including capabilities), lack of voice and representation, and vulnerability to shocks".[1] Vulnerability to disease and ill-health results from several major overlapping factors: underlying biological factors; socioeconomic 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.

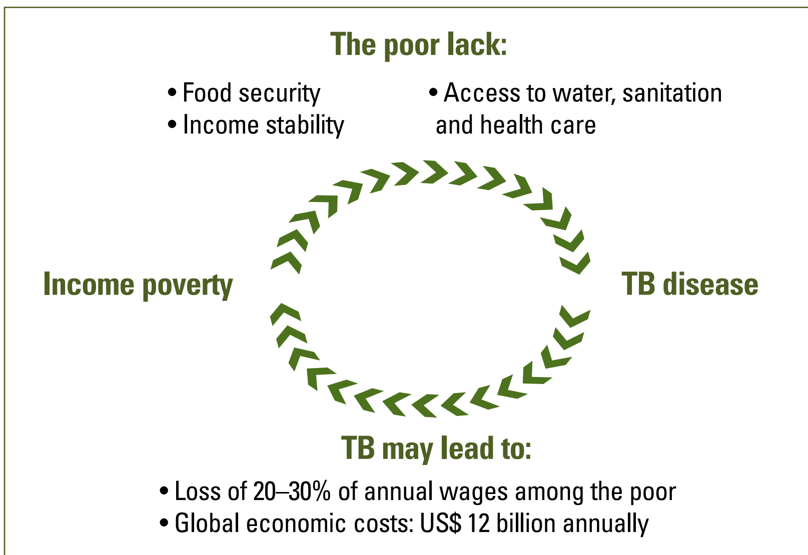
Inequity is relevant when examining the causes of ill-health, distribution of ill-health, barriers to seeking and receiving health services or prevention efforts and in the outcomes achieved with such interventions. Inequities can be measured across income groups, geographical groupings (nations, urban–rural 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).

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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	*M. tuberculosis* 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.

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[3] DOTS is the internationally recommended strategy for TB control.