2. **Addressing the gaps in TB control**

The common causes of drug resistance are well known. Treating TB with only a single effective drug (monotherapy) was identified as the chief cause of drug-resistant TB 60 years ago. Use of more than one drug may also be tantamount to monotherapy due to poor drug quality, poor drug management practices, wrong prescribing, consuming wrong treatment and poor adherence to treatment. All these causes may be addressed only if sound basic TB control is in place.

Bottlenecks to TB control vary from country to country. This paper presents some of the major gaps in basic TB control: continuing substandard TB care in hospitals, inadequate engagement of the private sector, and insufficient involvement of TB patients and affected communities. Addressing these gaps should help both: basic TB control and prevention of MDR-TB. The paragraphs below define each of the bottlenecks separately, discuss possible solutions to address them and outline the actions that need to be undertaken swiftly.

2.1 **Strengthening involvement of hospitals in TB control**

The problem

Programmatic TB diagnosis and treatment services in most countries are health centre based. However, evidence shows that significant numbers of TB patients continue to present to hospitals. For example, an assessment of case detection in Indonesia showed that private and public hospitals detected three times as many cases as government health centres although none of them were notified to the NTP.\(^1\) According to the national TB prevalence survey in China, 91% of TB suspects who consulted health-care providers first went to a general hospital.\(^2\)

A recent assessment of a large, one thousand bed hospital in a high TB-burden country in Africa sums up a representative picture of how hospitals provide perfect conditions for generating M/XDR-TB:

> Only 18% of those diagnosed with smear positive pulmonary TB in the hospital laboratory completed their treatment and 11% were cured. Clinicians did not adhere to the diagnostic guidelines of the NTP. In the TB register, 85% of PTB cases were diagnosed in the absence of sputum microscopy. Chest X-rays alone were used to diagnose pulmonary TB in 45% of the records reviewed. In addition,

---


clinicians failed to document a clinical history suggestive of TB. Only 66 (29\%) of the hospital's 225 smear positive pulmonary TB patients reached the clinics for completion of their treatment.\(^3\)

Hospitals thus remain the weakest link in the NTP.

For NTPs setting up collaboration is beset with barriers both inside and outside hospitals. Health centres and hospitals are often under different departments within the ministries of health (MoH). Making the more powerful departments responsible for hospitals cooperate in TB control requires serious commitment and coordination. Inside hospitals, interacting with busy, high-profile, specialist clinicians, often indifferent to public health importance of TB management, is problematic and outside the hospitals, establishing referral links with peripheral health centers to achieve the continuum of care for patients from distant regions requires establishing working networks and effective communication among facilities.\(^4\)

The solution

Some countries have begun addressing the challenge of involving hospitals in TB control. China’s well-functioning internet-based disease information system that requires hospitals to report details of all TB suspects and patients presenting to them for TB dispensaries to follow up has contributed to the country achieving the 70\% case detection target.\(^5\) Hospital linkage within the NTP network in Indonesia tripled case detection in some areas while engagement of medical colleges in India almost doubled case detection in some cities. PhilHealth, the governmental health insurance organization in the Philippines has, in collaboration with the NTP, developed a package of financial incentives for health facilities, public and private, available only to those who are certified and accredited for TB management. While all these efforts have produced results, leakage of patients does occur before and after diagnosis.

Hospital involvement in TB control requires special efforts at all levels. Countries have been addressing the issue by creating special task forces for the purpose at the national and provincial levels and leading groups or committees within hospitals. Until commitment is obtained, MoH authorities should be faced with evidence on how hospitals complicate rather than contain the problem of TB. Involving specialists, clinicians and nurses in TB control efforts should be possible through promotion of the International Standards for TB Care (ISTC). To create peer pressure so that the standards


\(^5\) Wang L et al. Strengthening involvement of hospitals in TB control in China using Internet-based communicable disease information system [in preparation].
are put into practice, national associations of health professionals should be mobilized. Once clinicians and nurses are convinced, achieving internal coordination among hospital departments and external networking with peripheral-level health facilities may remain mainly managerial issues.

**Urgent actions needed**

- Recognize the importance of hospitals in TB control and especially in preventing MDR-TB and commit adequate resources, human and financial, for the purpose.
- Set up a national mechanism to ensure coordination at the highest levels among departments responsible for health centres, general hospitals and specialist hospitals/medical colleges.
- Prepare an inventory of all hospitals and designate hospitals responsible for provision of TB services through certification / accreditation schemes.
- Develop, disseminate and implement guidelines on establishing linkages between hospitals and health centres as well as measures to be implemented within hospitals to ensure seamless care provision for TB suspects and cases, in line with the ISTC.
- In order to make the collaboration sustainable, ensure adequate compensation to hospitals for their input to TB control.

### 2.2 Scaling up public–private mix for TB care and control

**The problem**

Steady progress in basic TB control over the last decade notwithstanding, close to 40% of all sputum smear positive TB cases and about a half of all sputum smear negative TB cases do not get notified globally. In absolute numbers, this amounts to around a staggering 4 million sputum smear positive TB cases alone. Do these patients get diagnosed and treated at all? What proportion is diagnosed? Who diagnoses and treats them? Are they managed properly? Who ensures their adherence to treatment? What are their treatment outcomes?

There is enough evidence that a substantial proportion of patients with TB do present themselves to a wide array of health-care providers not linked in any way to the NTPs. Evidence also indicates that many of these patients are managed in inappropriate, non-standardized ways with anti-TB medicines of questionable quality. This is further

---

corroborated by available data on sale of anti-TB medicines in the retail private market in HBCs. Most of these patients are neither notified to the NTPs nor are their treatment outcomes known. There are reasons to believe that mismanaged TB patients unknown to NTPs could be an important source for emergence and spread of MDR-TB.

The solution

A comprehensive, health systems approach to strengthen the supply side of TB care provision is among the most important solutions to turning off the tap of MDR-TB. This should be possible through a rapid scale up of PPM interventions to engage all relevant care providers – private, voluntary, corporate and public – in basic TB care and control. While strengthening their own services, NTPs should also help strengthen other institutions offering TB care by providing overall stewardship, financing, guidance, training, supervision and quality assurance. Appropriate TB control tasks may be assigned to every care provider. Working with hundreds of individual practitioners or health facilities may be beyond the capacity of NTPs. In such circumstances, NTPs should collaborate with professional associations for engaging their networks of practitioners.

Health professionals' associations may require assistance to strengthen their own capacity which NTPs should try and offer. In places where such associations do not exist or are fragmented, it may be worthwhile, from a long term perspective, to encourage and assist in establishing professional associations, or coalitions thereof, for the purpose of TB care and control.

Attention needs also to be paid to laboratories offering TB diagnostic services to help improve access to quality diagnosis. At the same time, NTPs also need to work with relevant national authorities to address two very important issues: ensuring the quality and supply of medicines and enforcing their rational use.

Urgent actions needed

- Intensify efforts to identify TB service providers outside the scope of NTPs and engage them to ensure that all TB patients receive care in line with the ISTC.
- Formulate/modify policies to enable securing and providing human and financial resources, support and supervision for scaling up PPM programmes.
- Make professional associations close partners in TB care and control investing in strengthening their capacity if required.

• Engage private laboratories to improve access to diagnosis, providing them with support, training and quality assurance services.
• Measure contribution of diverse care providers to TB control and adapt policies and strategies to optimize it.
• Ensure quality and enforce rational use of anti-TB medicines available in the private market (see background paper: “Stop wasting precious drugs!..”).

2.3 Increasing involvement and empowerment of patients and communities

The problem

Today, too few people with TB and affected communities are empowered to express their needs, engage actively in TB control and prevent infection and disease. Without ways to expand their access to and involvement in quality care and prevention, they are at high risk of facing conditions that contribute to the spread of drug-resistant TB. They may not have access to information about TB and related services; they often have misconceptions about the disease that influence their health-related behavior; and, they nearly always face barriers to care -- physical, financial, social, and/or cultural.

There is sufficient evidence in support of effectiveness and cost-effectiveness of community involvement. Some countries do also have interventions in place to involve communities in TB control. However, the scarcity of information on the scope and nature of community interventions seem to indicate that this may not be a priority. Too often, over-burdened control programmes and health workers lack the capacity and impetus to stimulate and support partnerships with patients and communities. This may result from prioritizing medical services, shortages of workers, and limited training to reach out from health services and into communities.

The solution

The Stop TB Strategy calls for empowerment of people with TB, and communities, through: advocacy, communication and social mobilization (ACSM); community participation in TB care; and use of the Patients’ Charter for Tuberculosis Care, which lays out the rights and responsibilities of TB patients. The Strategy also calls for measures to improve access to treatment. It explicitly includes patient support as essential to effective treatment. Provision of incentives and enablers (food, transport vouchers, etc.) has helped address obstacles to care seeking among some vulnerable populations – these require careful thinking in order to ensure impact and sustainability.

Now there are more opportunities and resources available for community and civil society initiated efforts, especially through Global Fund support as well as bilateral and national resources. Some national medium-term TB control plans now have explicit community-involvement strategies. However, to ensure that such strategies are more
widely implemented, and yield desired results, more could be done at different levels. National Stop TB Partnerships and other community health networks can help. Collaborating with those working against other major disease pandemics and health problems can be a critical step forward. Communities working to expand access for HIV care have joined with those working on TB, thereby greatly increasing the voice, influence and impact of such efforts.

New approaches to health workforce development should help. These include the development of additional cadres of health workers based in the community and/or mobilized from the community, reinforced pre-service and in-service training of current staff to build their capacities, and new ways to retain health workers, especially in rural and per-urban areas. In addition, drawing other care providers in the private, and NGO sectors will help, and ensuring that the needs, ideas and concerns of communities and civil society are formally sought out and heard.

**Urgent actions needed**

- Ensure that health sector plans include active steps to increase the involvement of affected communities in the design, implementation, monitoring and evaluation of health promotion, preventive and curative services.
- Support efforts to improve the health workforce, and engage all available partners to help address TB and other public health priorities through primary health care.
- Identify and remove barriers to care for poor and other vulnerable communities.
- Mobilize resources to support community-level partnerships and local initiatives.
- Ensure communications that increase awareness of how to prevent the spread of TB, including its drug-resistant forms, through early detection of those who are ill and through quality care.