Public-private health partnerships in tuberculosis (TB) control have met with considerable success in slowing down the progress of the epidemic: the global incidence has stabilized and is in slow decline, and the estimated TB prevalence and death rates per 100,000 population has declined from 296 (1990) to 210 (2007), and from 29 (1990) to 26 (2007), respectively.

Partnerships: global impact

At the global level, the Stop TB Partnership, hosted by the World Health Organization (WHO), has had a significant impact by expanding and strengthening the coalition of organizations involved in TB control and research, and broadening their agenda, through two Global Plans to Stop TB.

First, the World Health Assembly (WHA) targets-detecting at least of 70 per cent of smear-positive cases and successfully treating 85 per cent of those by 2005 - have been closely approached, thanks to collective efforts by country governments and the international community. Secondly, there has been a two-fold increase in funding for TB control in high-TB-burden countries (HBCs) and an almost five-fold increase for research and development. Thirdly, TB/HIV collaborative activities have received a boost with a million TB patients tested for HIV, 700,000 people living with HIV (PLHIV) screened for TB, 200,000 HIV-positive TB patients treated with co-trimoxazole prophylaxis and 80,000 enrolled on antiretroviral therapy. Fourth, WHO in collaboration with countries and partners is spearheading efforts to facilitate scaling up of multidrug-resistant TB (MDR-TB) treatment programmes. A ministerial meeting is being held in Beijing, on 1-3 April 2009, to bolster political commitment and help countries develop long-term national plans for MDR-TB prevention and management, embedded within broader TB and health sector plans. Fifth, TB programmes are proactively working with partners and engaging diverse care providers through public-private mix (PPM) approaches. There has also been significant progress in community engagement with 90 per cent of HBCs and 65 per cent of countries in the African region involving communities for expanding access to high-quality TB care. Furthermore, some countries have set up national TB partnerships. Finally, an unprecedented number of new diagnostics, drugs, and vaccines development projects are in the pipeline or in clinical testing.

Even with all this progress, TB remains a formidable adversary and grows more lethal with the emergence of drug resistant TB and its deadly combination with HIV. Of major concern also is the stagnation in global TB case detection rate over the past 2 years, likely due to limited provider and community engagement as well as weak capacity of health systems in making services accessible to all.

Untapped opportunities

Many of the obstacles to TB control can be addressed by harnessing the full potential of partnerships. A range of health professionals, the corporate sector, other disease specific programmes and the community remain less tapped partners in efforts to tackle the TB epidemic while easing the burden off over-stretched national programmes.

A wide spectrum of public health care providers including public hospitals, prison, military, railway health services, etc. often serve a large proportion of TB symptomatic patients while not always applying recommended TB management practices or reporting their cases to NTPs. Involving these providers in TB...
control efforts can help NTPs achieve TB control targets, improve access to care and standardize its quality. For instance, hospitals in many settings detect and treat a significant proportion of TB cases\textsuperscript{5,6}. These cases may be mismanaged due to lack of adherence to international standards, no capability to follow-up during the long course of treatment and weak infection control measures which pose risks to others. Partnering with hospitals can help overcome these risks. For example, China’s well functioning internet-based disease information system that requires hospitals to report details of all TB suspects and patients for TB dispensaries to follow-up has contributed to the country achievement of the 70 per cent case detection target\textsuperscript{7}.

Private care providers are often the first point of contact for a coughing patient and play a major role in the delivery of TB services. However many of these patients are often mismanaged with anti-TB drugs of questionable quality and are not notified to NTPs. This could well undo the intensive efforts of NTPs and possibly be an important source for emergence and spread of M/XDR-TB\textsuperscript{8,9}. Documented experiences have shown that private care providers such as those working in non-governmental and faith-based organizations, private hospitals and private practice can play key roles in enhancing patient access, acceptance and treatment outcomes, and in reducing economic burden on patients\textsuperscript{5,10,11}. Engagement of pharmacists and drug shops have been demonstrated in countries such as Nepal, as being crucial in providing information, referral for diagnosis, dispensing of anti-TB drugs and promoting the rational use of anti-TB drugs\textsuperscript{12}. In many resource-poor settings, informal care providers such as traditional healers, drug shops and “village doctors” are the main source of care for patients and can assist national programmes in case detection, treatment support as well as community education, provided sufficient supervision is in place\textsuperscript{13-15}.

The corporate sector and workplace medical services also offer opportunities to access the global working population of 3 billion, detect TB cases early, and address the issues of adherence to treatment and stigma which are often related to work stresses\textsuperscript{16}. Furthermore, partnering with the pharmaceutical industry is vital to ensure quality and promote rational use of anti-TB drugs.

The intersecting HIV epidemic is another major reason for the resurgence of TB\textsuperscript{1}. For optimal outcomes there is need to strengthen collaboration between TB and HIV programmes, both at national and local levels. Positive results from small operational projects in Khayelitsha, South Africa, and Malawi, have demonstrated the effectiveness of such collaboration\textsuperscript{17}. The WHO recommended package of 12 collaborative HIV-associated TB (TB/HIV) activities, provides a practical framework for implementation of joint work at all levels.

The community is another valuable partner whose potential has not yet been fully utilized in TB control efforts. Experiences at national and local levels, have shown that community involvement in its various forms, e.g., DOT volunteers, health workers, ex-TB patients, etc, can make significant contributions to care, and help address special challenges such as TB/ HIV co-infection, MDR-TB, and improving control of TB among ethnic minorities\textsuperscript{18}.

Facilitating partnerships for TB care

With NTPs stretched to the limit, this begs the obvious question - "Doesn’t engaging a wide spectrum of partners, increase rather than decrease the burden on national programmes?". To link with all these providers, mechanisms should be swiftly developed in countries through engagement of professional societies representing all of the categories referred to above. These bodies generally have an extensive network and influence over the activities of their members. Medical professional associations are a potential conduit to systematically reach private clinicians. For instance, the Indonesian Medical Association regularly sensitizes and trains its members on the International Standards of TB Care (ISTC)\textsuperscript{9,10}; collaboration between the NTP and the Pharmacists Association in Cambodia led to the complete discontinuation of sale of anti-TB drugs\textsuperscript{11}; in Zambia, the association of traditional healers plays an important role in linking their members with the NTP\textsuperscript{12}.

Business Coalitions have emerged as an effective platform for bringing businesses together to address the challenges of TB. For example, business coalitions in South Africa and Bangladesh are making significant progress in increasing awareness about TB and encouraging members to initiate workplace TB programmes\textsuperscript{13}.

NTPs could engage with community based organizations, civil society groups, and other self help groups to inform and enhance knowledge among the
general public and people with TB - empowering them to voice their demands for accessible and quality TB care.

**Partnerships in India**

The Revised National TB Control Programme (RNTCP) of India has been a pioneer in rapidly scaling up TB care and control. Over the past decade, more than eight million patients have been put on treatment, resulting in saving more than 1.4 million additional lives. Furthermore, even with the challenges of India's diverse and massive population, the RNTCP was able to achieve the TB targets of 70 per cent case detection and 85 per cent treatment success rates in 2007\(^24,25\).

Efforts to engage all care providers in TB control were initiated in the mid-nineties through the involvement two private hospitals - Mahavir hospital in Hyderabad and the Ramakrishna Mission in Delhi\(^26\). Since then, the RNTCP has engaged over 2946 NGOs, 261 medical colleges and 17,695 private practitioners to roll out TB services with appropriate guidelines and schemes.

Of particular significance, is the recently launched (2008) Indian Coalition Against TB (ICAT). This national partnership brings together all partners and stakeholders working in TB control with the mandate of reducing the burden of TB in alignment with the RNTCP\(^27\). The RNTCP is also making significant efforts to reach and train private practitioners in the country through the Indian Medical Association (IMA) and engage workplaces through major business coalitions such as the Confederation of Indian Industries (CII), Federation of Indian Chamber of Commerce and Industry (FICCI) as well as trade unions. Furthermore, the RNTCP is working closely with the National AIDS Control Organization (NACO) since 2001, to roll out TB/HIV collaborative activities; this has resulted in improving access to TB services for PLHIV. The RNTCP has also built partnerships with civil society and grassroots organizations to bring TB care services to the community level through initiatives such as the Nidaan Kalyani Club\(^25\).

Despite all these efforts by the RNTCP, the journey towards TB elimination for India has just begun. There is need to rapidly build on successes in DOTS and resolutely pursue the comprehensive approach to TB control, encapsulated in the Stop TB Strategy\(^28\). The current engagement with private providers is at the beginning, for instance, and only a small percentage of private practitioners and workplaces have been completely engaged in TB control efforts.

Finally, there is need to further scale up prequalification standards for drug suppliers to match international and WHO criteria, especially for second-line anti-TB drugs. Suitable ways need to be identified to restrict the sale of anti-TB drugs to accredited practitioners only, and rationalize prescriptions, much in line with restrictions that apparently work in some places in case of psychotropic drugs. To achieve this, there is urgent need for India to develop a four pronged strategy: identify and link with private providers that prescribe TB treatment and bring their practices in line with international standards; work in partnership with pharmaceutical companies and drug authorities to ensure quality according to international standards; collaborate with pharmacies directly or through pharmacist associations to restrict the sale of anti-TB drugs and increase awareness among patients and general public about the rational use of drugs.

**Conclusion**

This year, the dawn of World Tuberculosis Day should bring messages of both hope and concern for humankind in general and India in particular. While a "TB-free world" is a goal within our grasp, to achieve the MDGs and move forcefully towards TB elimination, there is greater need for creative strategic partnerships in all aspects of TB control and research, and for addressing the social determinants of the epidemic. Though solid alliances and with common goals, the elimination of this ancient scourge may become reality.

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References


