EDITORIAL

Missing tuberculosis patients in the private sector: business as usual will not deliver results

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Of the estimated 10.4 million tuberculosis (TB) patients in 2015, 4.3 million were either not diagnosed or not notified to national TB programmes (NTP).¹ This means that a staggering 40% of the TB patients globally are invisible to the public health system. We have little awareness about the quality of TB care these patients receive, the barriers they face, and their outcomes. While a fraction of these missing patients are likely to be undiagnosed and not actively seeking care, a more plausible explanation is that missing patients are seeking care, but outside the NTP system.²

Emerging data on patient pathways and cascades of care suggest that this is indeed the case in high-burden countries with large private health sectors.³ Pakistan, India, China, Bangladesh, Indonesia and the Philippines are Asian countries that have not only a high prevalence of TB, but also large non-NTP sectors. In Pakistan and India, for example, nearly 75% of the population seek private health care, and studies show that quality of care in the private sector falls short of international standards.³

In this issue of *Public Health Action*, Khan and colleagues add to the evidence base on poor quality of TB care in the non-NTP sector, by documenting shortcomings in TB patients' retention in care in Pakistan.⁴ Retrospectively collected data from 2015 show that nearly two thirds of bacteriologically confirmed TB cases diagnosed at public-private mix (PPM) facilities in Lahore were never started on treatment, and the outcome was unfavourable for approximately one fifth of those receiving therapy.⁴ This is in stark contrast with the 4–28% pooled proportion of pre-treatment loss to follow-up in studies conducted in the public sector of five Asian countries, including Pakistan.⁵

As a smear-positive TB patient is estimated to generate about 10–15 secondary infections over a year, leaving so many patients untreated has negative consequences for both the individual and the community. As Pakistan ranks among the top five high TB burden countries worldwide, and private providers account for a considerable proportion of health care delivered in the country, such enormous gaps represent a major threat to global TB control.

The study by Khan and colleagues also highlights weak patient referral systems, inadequate patient tracking and support systems, insufficient use of information and communication technologies (ICT) to re-

duce leakages from the cascade of care in the private sector, and inability to cross-link and identify patients who move between private and public sectors. Clearly, without a good patient tracking system, it is impossible to improve programme performance.

In this context, we need to learn from newer private sector engagement models, reviewed by Wells, Uplekar and Pai.² In Pakistan, novel approaches such as using laypeople as cough screeners, mobile phone software and incentives, and communication campaigns have been shown to substantially increase case notifications from the private sector.⁶

In India, the NTP and state and municipal governments are seeing success with innovative models of private sector engagement.^{2,7} In urban projects in Mumbai, Patna and Mehsana (in Gujarat state), the Indian NTP, in collaboration with intermediary agencies such as PATH⁸ and World Health Partners,⁹ has engaged large numbers of private providers, and greatly increased the numbers of notifications from the private sector—which led to an upward revision of India's TB estimates in 2015.¹

Several elements of the above model are worth noting.^{8–10} First, qualified private sector providers were allowed to manage TB patients (instead of referring them to the NTP), and several free services were offered to their patients, including easy digital e-vouchers for free anti-tuberculosis drugs, and laboratory tests, such as chest X-rays, sputum smears and Xpert® MTB/RIF. Second, field staff of intermediary agencies aggregated diverse private providers into a network, provided education, and made frequent visits to private providers, and ensured that patients were notified to the NTP and linked to care. Third, adherence monitoring and support was offered to all TB patients to help them complete treatment. Finally, quality of care was monitored and targeted feedback was used to improve performance over time. All these pilots used ICT to engage and retain both patients and providers in the system. Thus, ICT services, including a contact centre (i.e., a call centre), not only allowed the projects to scale, it also allowed for patient tracking to ascertain treatment completion rates and to help retain patients in care.

It is clear that business as usual approaches are no longer adequate to deal with the vast, fragmented and largely unregulated non-NTP sectors in many countries. If we care about patient-centric, quality TB care for all patients, regardless of where they seek care,

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then we must explore newer ways to engage the private sector, exploit new tools (such as new diagnostics, drugs and ICT solutions), and attempt to go beyond pilots to scale interventions at the national level. In addition, NTPs must include quality improvement (QI) as an integral component of their strategy, and QI should apply to both public and private sectors.³ It is heartening to see countries such as India and South Africa explicitly include QI in their recently published National Strategic Plans.^{11,12}

References

- 1 World Health Organization. Global tuberculosis report, 2016. WHO/HTM/TB/2016.13. Geneva, Switzerland: WHO, 2016.
- 2 Wells W A, Uplekar M, Pai M. Achieving systemic and scalable private sector engagement in tuberculosis care and prevention in Asia. *PLOS Med* 2015; 12: e1001842.
- 3 Cazabon D, Alsdurf H, Satyanarayana S, et al. Quality of tuberculosis care in high burden countries: the urgent need to address gaps in the care cascade. *Int J Infect Dis* 2017; 56: 111–116.
- 4 Khan B J, Kumar A, Stewart A, et al. Alarming rates of attrition among TB patients in public-private facilities in Lahore, Pakistan. *Public Health Action* 2017; 5: 50–56.
- 5 MacPherson P, Houben R M, Glynn J R, Corbett E L, Kranzer K. Pre-treatment loss to follow-up in tuberculosis patients in low- and lower-middle-income countries and high-burden countries: a systematic review and meta-analysis. *Bull World Health Organ* 2014; 92: 126–138.
- 6 Khan A J, Khawaja S, Khan F S, et al. Engaging the private sector to increase tuberculosis case detection: an impact evaluation study. *Lancet Infect Dis* 2012; 12: 608–616.
- 7 Pai M, Dewan P. Testing and treating the missing millions with tuberculosis. *PLOS Med* 2015; 12(3): e1001805.
- 8 Malaviya S, Furtwangler T. A new approach to battling TB in Mumbai's crowded slums. *PATHBlog*, 2016. <http://blog.path.org/2016/02/a-new-approach-to-battling-tb-in-mumbais-crowded-slums/>. Accessed May 2017.
- 9 Gopalakrishnan G. Partnering across public and private sectors to beat TB in India. *Huffington Post*, 2015. http://www.huffingtonpost.com/gopi-gopalakrishnan/partnering-across-public-and-private-sectors-to_b_6913906.html. Accessed May 2017.
- 10 Dewan P. How India is moving the needle on TB. *Impatient Optimists Newsletter*, 8 January 2015. http://www.impatientoptimists.org/Posts/2015/01/How-India-is-moving-the-needle-on-TB?utm_ Accessed April 2015.
- 11 Central TB Division, Ministry of Health & Family Welfare, Government of India. National Strategic Plan for Tuberculosis Elimination 2017–2025 (Draft). New Delhi, India: RNTCP, 2017. <http://tbcindia.gov.in/WriteReadData/NSP%20Draft%2020.02.2017%201.pdf> Accessed June 2017.
- 12 National Department of Health and SANAC. South African National Strategic Plan for HIV, TB and STIs, 2017–2022. Pretoria, South Africa: SANAC, 2017. http://sanac.org.za/wp-content/uploads/2017/05/SANAC_NSP_Booklet_V2-07.pdf Accessed May 2017.