



Editorial

Quality: The missing ingredient in TB care and control



Good health is a function of the utilization of healthcare services and the quality of healthcare. In the field of global health, there is growing awareness of the need to go beyond coverage of services and improve the quality of care [1,2].

Recently, The *Lancet Global Health* published a landmark report entitled High-quality health systems (HQSS) in the Sustainable Development Goals era: Time for a revolution [3]. In this HQSS Commission report, the authors asserted that providing health services (i.e. coverage) without guaranteeing a minimum level of quality is ineffective, wasteful, and unethical. What is needed, the Commission argued, are high-quality health systems that optimize health care in each given context by consistently delivering care that improves or maintains health, by being valued and trusted by all people, and by responding to changing population needs [3].

Throughout the report, tuberculosis (TB) is used as a key example to illustrate the need to go beyond coverage and focus on the quality of care. According to the HQSS report, more than 8 million people per year in low- and middle-income countries die from conditions that should be treatable by the health system. Sixty-percent of deaths from conditions amenable to health care are due to poor-quality care, whereas the remaining deaths result from non-utilization of the health system [3].

The HQSS report provides a detailed analysis on TB deaths. Of the 946,003 TB deaths amenable to healthcare, the authors estimate that 469,956 (50%) are due to poor quality TB care. The remaining 476,047 deaths are due to non-utilization of healthcare services [3].

The report suggests that high-quality health systems could prevent 900,000 TB deaths each year [3]. In other words, by using already existing tools and improving the quality of care, we can avert 50% of all TB deaths.

The fact that 50% of deaths in association with TB occur despite the patient seeking medical care is a sad reflection on the current state of affairs. How is it acceptable that we cannot save patients with a curable, bacterial infection for which we have policies, tools and technologies?

Why is the quality of TB care suboptimal? Patient-pathways analyses from 13 countries show long, complex pathways to health care, private or informal sectors being the preferred first point of contact, and lack of adequate TB services at the primary care level. [4] Several studies show large gaps in the cascades of care, across types of TB and countries [5–7].

Simulated (standardized) patient studies in 4 countries (India, Kenya, China and South Africa) confirm gaps in cascades of care, and show poor quality of care in both public and private sectors, with private sector faring worse [8–12]. Across these studies, only about a third of simulated patients with presumed TB were managed correctly at the primary care level.

To end TB, we need nothing short of a quality revolution [13]. The

TB field urgently needs to adopt and implement the science of quality improvement (QI). But QI alone is not sufficient, since even the foundations of TB care are weak. Countries need to invest adequate funds to control TB, and make sure TB services are of high quality and patient-centric.

In September 2018, the United Nations General Assembly hosted the first ever High-level Meeting (UNHLM) on TB, and adopted a political declaration, which recognized that “tuberculosis is both preventable and curable, yet 40 per cent of people newly affected by tuberculosis are missed by public health reporting systems, and millions do not receive quality care each year, and that tuberculosis can only be eliminated through prevention efforts and access to quality diagnosis, treatment and care, including access to affordable diagnostic tools and drug treatment, effective people-centered and community-based models of care supported by integrated care services, as well as financing innovations” [14].

The TB field must build on this emphasis on quality in the UNHLM declaration and push all stakeholders to think beyond coverage and demand high quality care for all TB patients in all countries. If we are serious about ending TB, we must put quality on the agenda, in addition to expanding coverage of critical interventions.

Given the importance of quality in TB care, *Journal of Clinical Tuberculosis and Other Mycobacterial Diseases*, has launched a series on this topic. The series will cover papers on quality of TB care, approaches to measuring quality, and quality improvement interventions. It is our wish and hope that this series will result in a robust and sustained conversation about quality TB care, a topic that has heretofore been woefully neglected.

Conflicts of interest

None.

Ethical statement

None.

Supplementary material

Supplementary material associated with this article can be found, in the online version, at [doi:10.1016/j.jctube.2018.12.001](https://doi.org/10.1016/j.jctube.2018.12.001).

References

- [1] Kruk ME, Larson E, Twum-Danso NA. Time for a quality revolution in global health. *Lancet Glob Health* 2016;4(9):e594–6.
- [2] Das J, Woskie L, Rajbhandari R, Abbasi K, Jha A. Rethinking assumptions about

<https://doi.org/10.1016/j.jctube.2018.12.001>

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- delivery of healthcare: implications for universal health coverage. *BMJ* 2018;361:k1716.
- [3] Kruk ME, Gage AD, Arsenault C, et al. High-quality health systems in the Sustainable Development Goals era: time for a revolution. *Lancet Global Health* 2018;6(11):e1196–252.
- [4] Hanson C, Osberg M, Brown J, Durham G, Chin D. Finding the missing TB patients: lessons learned from patient-pathway analysis in 5 countries. *J Infect Dis* 2017. (In Press).
- [5] Subbaraman R, Nathavitharana R, Satyanarayana S, et al. The Tuberculosis Cascade of Care in India's public sector: recent estimates and gaps in knowledge. *PLoS Med* 2016;13(10):e1002149.
- [6] Naidoo P, Theron G, Rangaka MX, Chihota V, Brey Z, Pillay Y. Estimation of losses in the tuberculosis care cascade in South Africa and methodological challenges. *J Infect Dis* 2017;216(suppl_7):S702–13.
- [7] Alsdurf H, Hill PC, Matteelli A, Getahun H, Menzies D. The cascade of care in diagnosis and treatment of latent tuberculosis infection: a systematic review and meta-analysis. *Lancet Infect Dis* 2016.
- [8] Das J, Kwan A, Daniels B, et al. Use of standardised patients to assess quality of tuberculosis care: a pilot, cross-sectional study. *Lancet Infect Dis* 2015;15(11):1305–13.
- [9] Kwan A, Daniels B, Saria V, et al. Variations in the quality of tuberculosis care in urban India: a cross-sectional, standardized patient study in two cities. *PLoS Med* 2018;15(9):e1002653.
- [10] Daniels B, Dolinger A, Bedoya G, et al. Use of standardised patients to assess quality of healthcare in Nairobi, Kenya: a pilot, cross-sectional study with international comparisons. *BMJ Glob Health* 2017;2(2):e000333.
- [11] Sylvia S, Xue H, Zhou C, et al. Tuberculosis detection and the challenges of integrated care in rural China: a cross-sectional standardized patient study. *PLoS Med* 2017;14(10):e1002405.
- [12] Christian CS, Gerdtham UG, Hompashe D, Smith A, Burger R. Measuring quality gaps in TB screening in South Africa using standardised patient analysis. *Int J Environ Res Public Health* 2018;15(4).
- [13] 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* 2016.
- [14] United Nations General Assembly. Political declaration of the high-level meeting of the General Assembly on the fight against tuberculosis. http://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/73/3 (Accessed 29 October 2018) 2018.

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