



# Towards a “fourth 90”: A population-based analysis of post-tuberculosis pulmonary function testing in British Columbia, Canada, 1985–2015

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**Post-tuberculosis lung disease is a growing concern globally. In a Canadian sample, only 3% of respiratory TB cases underwent pulmonary function testing within 90 days of treatment end. Benchmarks for post-TB pulmonary function testing are needed.** <https://bit.ly/2WX3tVf>

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## *To the Editor:*

Mounting evidence of chronic obstructive and restrictive lung disease among respiratory tuberculosis (TB) patients after treatment [1–4] raises questions about current practice in terms of linkage to care once pharmacologic treatment for TB has stopped. A systematic review of post-TB COPD showed pooled odds ratio of 3.05 (95% CI 2.42–3.85) for people with a history of TB compared to non-TB controls [3]. Another review reported a range of proportions of TB patients with airflow obstruction post-TB of 0.18–0.87 [1]. The development of a “fourth 90”, in addition to the three objectives of the Stop TB Partnership’s Global Plan to End TB, has been suggested: “Ensuring that 90% of all people successfully completing treatment for TB can have a good health-related quality of life” [5]. Post-TB sequelae may figure prominently in reductions in quality of life among TB patients [6], particularly those with severe forms of pulmonary TB [7]. International guidelines on TB treatment provide limited, if any, guidance for managing post-TB sequelae [8]. A logical first step towards managing post-TB lung disease (PTBLD) in well-resourced programmes may be to measure pulmonary function at the end of TB treatment. This may be performed at relatively low cost and with virtually no risk to the patient or public. The proportion of

respiratory TB patients in high-resource settings who undergo pulmonary function testing during or after TB treatment is unknown. We hypothesised that a small proportion received this form of diagnostic testing in our well-resourced local setting (British Columbia (BC), Canada).





















