

Tackling tuberculosis in the indigenous people of New Zealand

We read with great interest the Correspondence by Zelalem Temesgen and colleagues published in the August issue of *The Lancet Public Health*.¹ We strongly agree that the adoption of innovative technology such as whole-genome sequencing can improve tuberculosis treatment and management. We have used whole-genome sequencing to address disparate rates of tuberculosis in New Zealand.

Māori, the Indigenous people of New Zealand, have higher notification rates of tuberculosis compared with New Zealand Europeans.² In addition, a New Zealand unique strain known locally as the Rangipo strain, is strongly associated with Māori, with 88% of Rangipo tuberculosis cases reported in the Māori population over the past 10 years.³

We have done whole-genome sequencing of Rangipo strains isolated from Māori people over the past 30 years in the Waikato region of New Zealand (second highest population of Māori in New Zealand).⁴ Whole-genome sequencing data suggest ongoing transmission of the Rangipo strain within the Māori population for nearly three decades. This endemic strain shows the need to identify risk factors associated with ongoing tuberculosis transmission and develop appropriate population-based preventions.

In addition to incorporating new technology to fight tuberculosis inequalities, as suggested by Temesgen and colleagues, the Global Plan to End TB and the Stop TB Initiative recommend that indigenous groups are involved in the conception and development of any kind of intervention. In New Zealand, a strategy that aligns with Māori values is necessary to prevent further tuberculosis transmission in

the Māori population. Māori's values have underpinned several Māori public health services and frameworks in New Zealand (He Korowai Oranga: Māori Health Strategy).⁵ A strategy aimed at reducing tuberculosis health disparities should incorporate the principles of partnership, participation, and protection to effectively promote and protect Māori health. This strategy should encompass collaboration with whānau (family) before and during tuberculosis treatment, and representation in decision making, culturally appropriate service delivery, and maintaining and promoting access to cultural, social, and spiritual mechanisms necessary to health. Only through the combination of new and innovative technologies alongside preventative strategies that include indigenous collaboration, valorise culture, language, and other aspects of traditional knowledge, will we be able to effectively address the tuberculosis health inequalities in Indigenous people both in New Zealand and worldwide.

We declare no competing interests.

**Htin Lin Aung, Thomas J Devine, Claire V Mulholland, Vickery L Arcus, Gregory M Cook*
htin.aung@otago.ac.nz

Department of Microbiology and Immunology, School of Biomedical Sciences, University of Otago, Dunedin, New Zealand (HLA, TJD, GMC); and School of Science, University of Waikato, Hamilton, New Zealand (CVM, VLA)

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- 5 Ministry of Health. He Korowai Oranga: Māori Health Strategy. 2002. <https://www.health.govt.nz/system/files/documents/publications/mhs-english.pdf> (accessed Aug 18, 2019).

