

## Review of: "A Value-Driven Future Approach to Precision Medicine for Health Sustainability in New Zealand: A Perspective"

Edouard C. Nice1

1 Monash University

Potential competing interests: No potential competing interests to declare.

This article is a perspective on a value-driven future approach to precision medicine for health sustainability in New Zealand. It is timely as there is increasing awareness of the value of personalised/precision medicine. Whilst the article contains much that is informative, at places it appears fragmented and there are a number of items which need to be addressed before it is suitable for publication (see below).

Decision: Revise

General comment. Please do not use the word etc. It tells the reader nothing. You should define what the etc's are.

Precision Medicine. This should start with a clear description of precision medicine (e.g. Personalized/precision medicine involves specifically tailoring treatment to the individual characteristics of the patient rather than the current approach of stratifying patients into "a one size fits all" approach. It addresses both health and disease and can inform on predisposition, screening, diagnosis, prognosis, pharmacogenomics, and surveillance, based on a comprehensive understanding of an individual's own biology. Importantly the patient will set his own baselines. Longitudinal studies will be important. Please discuss these points.

You have used Vogenberg et al., 2010 as your primary reference to personalised medicine. However, this is now somewhat old and more current reviews should also be cited (e.g. PMID: 34063807, PMID: 32325878).

Expand on the Te Nohonga Kaitiaki Guidelines. What about the non-Maori population? These are genomics guidelines. What guidelines are being prepared to address the role of the Omics Pipeline?

Theranostics and Companion Diagnostic Testing: Define this at the beginning of this section

Population Studies. Top line treatment is frequently not available in underdeveloped countries, resulting in poor care and prognosis. Please mention.

Respiratory Diseases & Personalized Medicine. Why were "Respiratory Diseases & Personalized Medicine" specifically selected. I would like to see much wider coverage of important pathologies (briefly mentioned in Section 9). This should include cervical cancer.



New Opportunities. I find this section rather lacking in depth. It reads like a series of dot points. Much more can be made of this section. Low cost assays required. Cost of individual genome analysis is falling. Combinations of Genomics, Transcriptomics, Proteomics and other omics technologies (see PMID: 34063807) will see increased uptake.

Based on the above comments it may be better to combine Sections 9 and 10. This will require some rewriting to get an optimum flow.