



## Comment on 'Unpacking tick-boxes: considerations and recommendations for collecting, analysing, and interpreting ethnicity data'

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## Comment on ‘Unpacking tick-boxes: considerations and recommendations for collecting, analysing, and interpreting ethnicity data’

Yao et al.’s article ‘Unpacking tick-boxes: considerations and recommendations for collecting, analysing, and interpreting ethnicity data’ (Yao et al. 2025), offers important insights into the complexities of ethnicity data collection in Aotearoa and highlights how research outcomes, policy decisions, and ethical responsibilities are shaped by methodological choices. The authors advocate for researcher reflexivity, integrity, and respect for data sovereignty, presenting recommendations for working with quantitative ethnicity data.

This letter extends their work by showing how similar issues – especially around data quality – increasingly affect administrative datasets used in health research and policy. These challenges are critical when applying the authors’ recommendations in practice.

A key focus of the paper is the total response approach, especially valuable for research requiring detailed ethnic identification, such as Pacific health studies. Examples like the Growing Up in New Zealand (GUINZ) study (GUINZ 2025) and the Youth’12 survey (Clark et al. 2013), underscore the importance of accurate, standardised data. Yao et al. caution against the standard administrative prioritisation method used in health datasets, which systematically undercounts all ethnic groups not first in the hierarchy – particularly affecting Pacific populations – and cite Census 2023 data showing that total response counts can exceed 100%. However, when using administrative or census datasets directly in analysis, there are major data quality issues that must be considered. These challenges constrain the ability to adopt total response and complicate efforts to implement the more inclusive practices the authors argue are central to evidence-based policy and research.

The authors rightly recommend using Stats NZ’s Statistical Standard for Ethnicity (Statistics NZ 2005), which underpins census data collection and supports detailed responses at minimum Level 2 (e.g. Samoan, Tongan). While the standard remains robust, it was developed when census response rates exceeded 90% for all groups, before imputation and administrative fill methods became widespread. Since 2018, declining census response rates – particularly for Māori and Pacific peoples – have led Stats NZ to rely on administrative sources to fill gaps (Sonder et al. 2024; Sonder and Ryan 2024). These sources often lack standardisation and introduce new systemic biases. An example is the National Health Index (NHI), an administrative health dataset, which misclassifies and undercounts about 15% of Māori (Harris et al. 2022) and Pacific peoples (Manatu Hauora 2022), compared to just 0.9% for non-Māori (Harris et al. 2022), highlighting systemic flaws in ethnicity data collection.

The continued use of prioritised ethnicity in the health sector (Ministry of Health 2017), despite the statistical standard recommending total response (Statistics New Zealand 2005) may reflect these administrative challenges. Total response reporting generally requires

more robust data quality, and calculating rates or trends demands accurate denominators, yet population estimates reported by Health New Zealand are based on prioritised census ethnicity data (Te Whatu Ora 2025), further complicating efforts to align practice with policy ideals.

Moreover, both StatsNZ and external reviews warn that ethnicity data quality declines with greater specificity, advising caution in trend analysis, due to methodological shifts and inconsistent coverage (Statistics New Zealand 2019, 2025). Yet, such analyses are widespread in health research and policy, often without adequate attention to these caveats, risking systemic bias in decision making based on flawed data and analysis.

While Yao et al. provide compelling recommendations for researchers, extending these principles to administrative and national datasets like the census is essential. The divergence between statistical ideals and real-world practice – exacerbated by data quality gaps – disproportionately affects Māori and Pacific peoples. Achieving equitable, evidence-based policy requires greater transparency, accountability, and methodological rigour across all systems of data collection. It is concerning that Stats NZ plans for Census 2028 appear not to meaningfully address these challenges (Sonder and Ryan 2024; Statistics New Zealand 2024).

We commend the authors and hope this letter complements their work by showing how these principles also apply to administrative data, where major policy decisions are made.

## AI usage disclosure

The authors acknowledge the use of ChatGPT (developed by OpenAI) solely for the purpose of improving the language and clarity of the manuscript. All content, ideas, analyses, and conclusions presented in this work are entirely our own. We have thoroughly reviewed, edited, and verified all AI-assisted text to ensure accuracy and originality. The authors bear full responsibility for the integrity and content of this publication.

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