PUBLIC HEALTH COMMUNICATION CENTRE AOTEAROA

Rebuilding Aotearoa’s statistical foundation: Toward fairer outcomes for Pacific Peoples

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Summary

Pacific peoples have been consistently undercounted in Aotearoa's official statistics, distorting population estimates and undermining equity in health, services, and resource allocation. Stats NZ's shift to an admin data-first census, after two censuses that failed to equitably represent all New Zealanders, risks worsening these gaps by relying on fragmented records and flawed probabilistic linkages. This method falls short of Stats NZ's accuracy benchmarks, especially for mobile and underserved groups like Pacific communities, and key issues, such as ethnicity misclassification, remain unresolved.

This Briefing argues that the admin-first model cannot support equitable health outcomes. It proposes a centralised, event-based population IT system with standardised demographic fields. Such a system would improve accuracy, reduce duplication, lower costs, support data sovereignty, and enable future-proof planning. It would also strengthen survey design through smaller, more precise, cost-effective samples. A robust, person-centred statistical foundation is essential to restore trust and achieve fairer outcomes for Pacific peoples in Aotearoa.

Accurate population data is essential for fair policymaking, resource distribution, and meeting international obligations.[1,2,3,4] Yet in Aotearoa New Zealand, Pacific peoples are routinely undercounted in official statistics[5]. This distorts health and social data, undermining funding, services, and outcomes. Stats NZ's planned shift to an admin data-first census in 2028 raises major concerns,[6,7] given persistent data quality issues affecting Pacific communities. The model relies on administrative records and probabilistic matching, reinforcing systemic racism.[8,9] This Briefing argues the current approach cannot deliver equitable health outcomes and proposes an alternative: a centralised, event-based IT system to serve as the statistical backbone New Zealand urgently needs.[6] With standardised fields and cross-sector links, it would improve accuracy, support data sovereignty, and enable equity-focused planning[10]

Historical undercount of pacific populations

Pacific peoples have long been undercounted in official statistics, misinforming policy and equity planning.[5] The 2018 census had low Pacific response rates, and administrative records failed to close the gap.[5] During the COVID-19 vaccine rollout, census-based estimates overstated coverage; Health Service User (HSU) data was used instead,[11] but it also undercounts Pacific populations.[5,12] These persistent gaps reflect systemic flaws in current enumeration methods, with real-world consequences for funding[13] and service delivery.[5]

Real-World Impacts of Enumeration Gaps, examples

- **Overcounted, underserved**
  Pacific access to primary care in South Auckland has long been reported at over 100% due to flawed census data—masking consistently low actual access.[5]
- **$130M lost to undercounting**
  Poor 2018 census turnout in South Auckland may have cost the region $130 million in health funding.[13]
- **Cancer screening gaps hidden by bad data**
  Cervical screening for Pacific women in South Auckland has long been reported as highest, yet was actually lowest. Many missed out on screening invitations and follow-up care because they weren't on official registers.[5]

Challenges in census and survey methodology

Flawed and shifting census methods have caused persistent counting errors across Aotearoa. Pacific communities are regularly undercounted or misclassified, weakening census quality and survey sampling frames. The 2023 Statistical Location Register (SLR), built from fragmented sources, required uncoordinated manual checks.[14] The Post-Enumeration Survey (PES)—a household survey used to assess census coverage—was modified in 2018[15] and 2023,[16] making it harder to evaluate census quality and establish benchmarks. Without reform, these weaknesses[6] will continue to distort resource allocation and equitable planning.

Limitations of an admin data-first approach

The admin data-first model assumes existing records can produce accurate population estimates. However, the key conditions Stats NZ presented to Cabinet in 2015[17] for enabling this shift have not been met:

1. **Benchmarking**: The 2018 and 2023 censuses were meant to serve as benchmarks for the transition. The 2018 census failed, and 2023 results remain uncertain—especially for Māori and Pacific populations, who face high undercount and misclassification. Without reliable census data, the statistical backbone is compromised.
2. **Standardisation**: Demographic inconsistencies persist—especially in ethnicity data—leading to unreliable trends and inequitable outcomes.[8] Misclassification means people are counted but not correctly identified, weakening data used for equity planning.
3. **Address accuracy**: A real-time national address register does not exist. The 2023 SLR was built from fragmented sources and required uncoordinated manual checks. Stats NZ now proposes the Integrated Statistical Data System (ISDS), a dwelling-based register that does not track individuals. This is a step forward, but such systems miss who actually lives where—especially in mobile and multi-family households. Without real-time updates, address data becomes outdated and inaccurate. Accurate person-level data is essential for calculating response rates, assessing bias, and designing

equitable surveys. Without knowing who lives where, statistics will continue to reinforce structural inequities.

Without a standardised, person-based register, the model relies on probabilistic linkage across fragmented datasets—methods known to amplify systemic racism.[18,19,20] These challenges have been acknowledged by Stats NZ in its own feasibility assessments.[7]

The case for a register-based population system

To address persistent weaknesses in Aotearoa's population data, New Zealand should invest in a centralised, event-based statistical register.[10] This person-centred, equity-led system would ensure visibility and representation, replacing fragmented linkage methods with a secure, real-time infrastructure. While this Briefing focuses on Pacific communities—who experience the most significant enumeration gaps—this IT solution would also enhance data accuracy and consistency across all ethnic groups, strengthening the foundation for more inclusive policy and planning.

Core features include standardised demographic fields, improved record linkage, and event-based updates, which means a central IT system automatically updates population records with each interaction with a government agency and shares this information across agencies in real time.[10] Individuals could access and manage their demographic data via RealMe, enhancing trust and accuracy. The system would also resolve data conflicts, maintain address records, and embed governance to support Māori and Pacific data sovereignty,[10]

Why it matters: Core benefits of a register-based system

This model doesn't require collecting new data. It links existing information across systems in real time, rather than retrospectively, improving timeliness, transparency, and accuracy without adding burden. Because it uses data already held by agencies and linked retrospectively, it introduces no additional privacy risks.

It would also serve as the statistical backbone New Zealand currently lacks—a key concern raised in a 2024 PHCC briefing.[6] By improving foundational data, the register would reduce duplication, lower costs, and support adaptive, equity-focused planning.

Crucially, it enables person-level sampling alongside household-based approaches. This allows for more precise, generalisable surveys through better stratification and weighting—particularly benefiting underserved populations whose data is less reliable.

Together, these improvements would create a more inclusive, accountable statistical system that better serves Pacific peoples and other underrepresented groups.

Conclusion

The admin data-first model cannot deliver accurate or equitable population estimates for Pacific peoples. Undercounts, fragmented sources, and flawed linkage methods continue to erode the credibility of official statistics.

A centralised, event-based population system could provide the statistical backbone currently missing from New Zealand's data infrastructure. Only by investing in a secure, person-centred register can Aotearoa build a fair, future-ready system that truly reflects

and serves its Pacific communities.

What this Briefing adds

- Highlights how systemic undercounting of Pacific peoples distorts population estimates, resource allocation, and equity planning.
- Flags the equity risks of Stats NZ's admin data-first model, particularly for mobile, multi-family, and underserved communities.
- Confirms that fragmented data and probabilistic linkage amplify institutional bias – reinforcing systemic racism.
- Presents a practical alternative: a person-centred, event-based data infrastructure to improve accuracy, visibility, trust and planning equity.
- Confirms that improving data infrastructure relies on more accurate linking of existing records, without requiring new collection or raising privacy concerns.

Implications for policy and practice

Policy

- Urgent need to modernise data infrastructure to enable efficient, person-level linkage that supports accuracy, transparency, and long-term equity.
- Aligns with calls for system-wide reform[9] to support Māori data sovereignty and address structural inequities in health and service planning.

Practice

- Public services should be guided by timely, self-identified demographic data, including real-time updates to address and ethnicity information.
- Data systems should be co-designed with communities most affected by misclassification and invisibility.

Surveillance:

- Improve monitoring of Pacific outcomes through integrated administrative data and more consistent, reliable population estimates.

Research:

- Enable longitudinal, equity-focused studies using standardised, interoperable data—building a foundation for responsive, future-ready policy.

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