Disparities in Perinatal Outcomes in Western Australia: An Analysis of Birth and Death Data from 2019-2021

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Background: Perinatal mortality is a key indicator of maternity care quality and equity. Despite improvements in neonatal survival, stillbirth rates have plateaued globally, with persistent disparities among disadvantaged populations.

Objectives: This retrospective cohort study describes socio-demographic, antenatal, and maternal risk factors associated with perinatal mortality in WA between 2019 and 2021.

Methodology: All births and deaths in WA between 1 January 2019 and 31 December 2021 were included, as recorded in the Midwives Notification System and Perinatal and Infant Mortality Dataset. Cases were excluded if births occurred outside WA, gestational age was under 20 weeks, or birth weight was below 400 grams. Twelve risk factors were assessed using multivariate logistic regression.

Results: Perinatal mortality among Aboriginal mothers was over twice that of non-Aboriginal mothers (15.7 vs 7.4 per 1,000). Mothers in the most socioeconomically disadvantaged areas had higher odds of stillbirth (aOR: 1.3; 95% CI: 1.0–1.7) and neonatal death (aOR: 2.1; 95% CI: 1.0–4.2); however, findings were of borderline statistical significance. Stillbirth risk factors included smoking (aOR: 1.4; 95% CI: 1.1–1.8), primiparity (aOR: 1.3; 95% CI: 1.1–1.5), multiple pregnancies (OR: 3.4; 95% CI: 2.6–4.5), and African ethnicity (aOR: 2.0; 95% CI: 1.4–3.1). Neonatal risk factors included obesity (aOR: 2.2; 95% CI: 1.4–3.3), multiple pregnancies (aOR: 6.6; 95% CI: 4.2–10.4), and absence of antenatal care (aOR: 8.0; 95% CI: 2.3–28.2).

Conclusion: Despite favourable perinatal outcomes in WA, substantial disparities remain, particularly among Aboriginal and culturally and linguistically diverse populations, and mothers in areas of greater socioeconomic disadvantage.

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This research did not focus on Aboriginal and Torres Strait Islander health but identified disparities in perinatal outcomes among Aboriginal and African populations. Due to its retrospective scope, co-design or engagement was not undertaken. Indigenous health is referenced, and I will acknowledge this during the presentation.