# ABSTRACT

## Maternal Educational Inequalities in DPT3 and Booster Vaccination among Indonesian Children Aged 24–35 Months

Nilna Sa'adatar Rohmah, Muhamad Zakki Saefurrohim

**Correspondence E-mail :** nilnas.rohmah@gmail.com

Educational inequalities in childhood immunization may differ between the third diphtheria–pertussis–tetanus vaccine dose (DPT3) and its booster.

To compare absolute maternal educational gaps in DPT3 and booster receipt among the same Indonesian children.

This cross-sectional analysis used the 2024 Indonesian Nutritional Status Survey, including 55,452 children aged 24–35 months with known vaccination status and maternal education. Survey-weighted linear models analyzed each child's booster status minus their DPT3 status, accounting for stratification and clustering. We compared educational gaps between doses, focusing on tertiary versus primary education or less. Models adjusted for age, sex, residence, and province.

DPT3 receipt was 74.99% among children whose mothers had primary education or less and 87.15% among those with tertiary education; booster receipt was 52.17% and 64.33%, respectively. The between-dose difference in these gaps was 0.01 percentage points (95% CI, −1.90 to 1.92), and 0.46 (95% CI, −1.49 to 2.41) after adjustment. Across all four educational groups, the adjusted global test indicated heterogeneity (P = 0.0404). Sensitivity analyses produced similar estimates for the principal contrast.

Conclusion/Lesson Learned : Educational inequalities were present for both doses, but the principal contrast did not establish a wider booster gap. Lower booster receipt across educational groups supports strengthening vaccination continuity alongside equitable coverage.

Keyword : Maternal education; Immunization; Health inequalities; Booster vaccination; Indonesia