



Impact of Water Supply and Sanitation on Diarrhea Prevalence Among Children Under Five in Papua New Guinea

Friday 6 March

12:30 - 1:30pm Port Moresby / 1:30 - 2:30pm Canberra



Tea and coffee growers along Kindeng-Kondipina Road, PNG | ADB

Diarrhea remains a leading cause of death among children under five in Papua New Guinea. This paper examined the impact of the improved water and sanitation on diarrhea outcomes among 7,670 children under five using nationally representative data from the 2016-2018 PNG Demographic and Health Survey (DHS).

The paper employs propensity score matching (PSM) technique, using the nearest neighbor algorithm to estimate the causal effect of household improved water and improved sanitation facilities. The results show that access to improved water reduces the probability of diarrhea by 3.8 percentage points, while improved sanitation yields an 8.6 percentage points reduction. When households have access to both services, the combined effect remains at 8.2 percentage points reduction.

These effects are statistically significant at five percent level. Robustness checks were conducted using radius and kernel matching, both of which support the main findings. There is strong empirical evidence supporting expanded access to clean water and sanitation in PNG, particularly to rural areas.

Speaker

Kingtau Mambon

Lecturer, University of Papua New Guinea

Locations

1. MBA Suite (SBPP building, UPNG)
2. Seminar room 7, Crawford School of Public Policy
3. Online via Zoom

Register

<https://events.devpolicy.org/20260306>

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