

Title of the project	Annual Risk of Tuberculosis Infection in East Nusa Tenggara and Central Java Province, Indonesia
Conducted by	The Center for Health Research University of Indonesia
Supported/funded by	WHO
Year	2007
Sample size	65 schools + 79 schools
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Objective: To estimate the average annual risk of tuberculous infection (ARTI) among school children aged 6-9 years in each province.

Methods: Children attending classess 1-4 in 65 schools in NTT and 79 in Central Java, selected by two-stage sampling, were intradermally administered 2 tuberculin units of purified protein derivative RT23 with Tween 80 on the mid-volar aspect of the left forearm. The maximum transverse diameter of induration was measured 72 h later. The analysis was carried out among 5479 satisfactorily test-read children in NTT and 6943 in Central Java. One hundred and fifty-five new sputum smear-positive pulmonary tuberculosis (PTB) cases (78 in NTT and 77 in Central Java) were also tuberculin tested. Based on the frequently distribution of reaction sizes among the children and PTB cases, the prevalence of infection was estimated by the mirror-image method using the modes of tuberculous reaction at 15 and 17 mm.

Results: Using the 15 mm mode, ARTI was estimated at 1% in NTT and 0.9% in Central Java. Using the 17 mm mode, ARTI was estimated at 0.5% in NTT and 0.4% in Central Java.

Conclusion: Transmission of tuberculous infection may be further reduced by intensification of tuberbulosis control efforts.

Keywords: tuberculosis, infection; tuberculin survey; annual risk; Indonesia