

Title of the project	<b>Annual Risk of Tuberculosis Infection in West Sumatra Province, Indonesia</b>
Conducted by	The Center for Health Research University of Indonesia
Supported/funded by	WHO
Year	2006
Sample size	72 schools
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**Objective:** To estimate the annual risk of tuberculosis infection (ARTI) among children attending elementary school classes I-III in West Sumatra Province, Indonesia.

**Methods:** The survey was designed to estimate ARTI among children, irrespective of BCG scar status. Field work was carried out in 72 schools selected by two-stage sampling. Children were administered 2 TU of purified protein derivative RT23 with Tween 80 intradermally on the mid-anterior aspect of the left forearm. The maximum transverse diameter of induration was measured at about 72 h. Analysis was carried out among 5.653 satisfactorily test-read children aged 6-9 years.

**Results:** The estimation by mirror-image method among all children (without and with BCG scar) revealed an ARTI of between 1% and 1.3%. The estimated ARTIs among children without and with BCG scar varied between 0.8-1.3% and 0.9-1.4%, respectively, using the mirror-image method, anti-mode method and mixture model.

**Conclusion:** Tuberculosis control efforts need to be intensified to reduce the risk of transmission of infection.

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