| | |
|---|---|
| Title of the project | **High Risk of Tuberculosis Infection in North Sulawesi Province, Indonesia** |
| Conducted by | The Center for Health Research University of Indonesia |
| Supported/funded by | WHO |
| Year | 2008 |
| Sample size | 99 schools |
| Team | Adang Bachtiar, Rizanda Machmud, Tri Yunis Miko, Besral, Yudarini |

Objective: To estimate the annual risk of tuberculous infection (ARTI) among school children aged 6-9 years in age group.
Methods: A cross-sectional survey was carried out in 99 schools selected by a two-stage sampling process. Children attending grades 1-4 in the selected schools were administered intradermally with 2 tuberculin units (TUs) of purified protein derivative RT23 with Tween 90 and the maximum transverse diameter of induration was measured about 72 h later. A total of 6557 children in the 6-9 year age group were satisfactorily test-read, irrespective of their bacilli Calmette-Guerin (BCG) vaccination status.
Results: Based on the frequency distribution of reaction sizes obtained among satisfactorily test-read children (without and with BCG scar), the estimated ARTI rates when estimated by different methos (anti-mode, mirror-image and mixture model) varied between 1.9% and 2.5%. BCG-indeced tuberculin sensitivity was not found to influence the ARTI estimates as the differences in estimates between children without and with BCG scar were not statistically significant.
Conclusion: TB control efforts should be further intensified reduce the risk of tuberculous infection.

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