

**PS-71284-10 Annual risk of TB infection as determined by tuberculin skin test surveys in Zambia and South Africa**

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**Background:** Tuberculin Skin Test (TST) surveys were conducted in 2005 as baseline studies of a larger study, ZAMSTAR (Zambia South Africa TB and AIDS Reduction Trial).

**Objective:** To estimate the Annual Risk of TB Infection (ARTI) in 24 high burden TB and HIV communities.

**Method:** IUATLD guidelines were used in the placement and reading of skin tests after school and community social mobilization activities were conducted. Permission was sought from relevant authorities. Children enrolled in grades 1 to 3 were listed along with their age, sex and BCG scar status. Intradermal injections were given using 2 TU (0.1 mls) of tuberculin PPD RT23 and results were read 72 hours later. TB infection prevalence estimates and ARTI were established by direct, mirror and mixture methods.

**Results:** A total of 49 835 children were registered. Consent was given by 29 053 (58%) children, of these 22 563 (78%) were injected and read. Positive results as determined by indurations of 15 mm or more were recorded in 2690 (12%) of the children read. The ARTI was within the range 0.2–1.5% and 1.9–3.7% for Zambian and South African children respectively.

**Conclusion:** There were big differences in prevalence of TST positivity and by inference tuberculosis infection and ARTI depending on what method is used to analyze them.