

Publication**Cost-effectiveness of tuberculosis screening for migrant children in a low-incidence country****JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)****ID** 4506979**Author(s)** Usemann, J.; Ledergerber, M.; Fink, G.; Ritz, N.**Author(s) at UniBasel** [Fink, Günther](#) ; [Ritz, Nicole](#) ;**Year** 2019**Title** Cost-effectiveness of tuberculosis screening for migrant children in a low-incidence country**Journal** The international journal of tuberculosis and lung disease : the official journal of the International Union against Tuberculosis and Lung Disease**Volume** 23**Number** 5**Pages / Article-Number** 579-586**Mesh terms** Adolescent; Child; Child, Preschool; Cost-Benefit Analysis; Female; Health Care Costs; Humans; Incidence; Latent Tuberculosis, epidemiology; Male; Mass Screening, methods; Prevalence; Quality-Adjusted Life Years; Retrospective Studies; School Health Services, economics; Switzerland, epidemiology; Transients and Migrants, statistics & numerical data; Tuberculin Test

Detection of latent tuberculous infection (LTBI) is important to prevent progression to active tuberculosis (TB), particularly in migrant children. We evaluated the cost-effectiveness of TB screening in migrant children in a low-incidence country. Retrospective analysis of a school-based TB screening programme in Switzerland. Migrant children were screened using the tuberculin skin test (TST). TST was considered positive if induration was 10 mm in non-bacille Calmette-Guérin (BCG) vaccinated children, and 15 mm in BCG-vaccinated children. Screening and treatment costs were extracted from hospital records. Cost impact was analysed as the difference between the cost of treatment for active TB and screening plus LTBI treatment. Cost per disability-adjusted life-years (DALY) was assessed based on Global Burden of Disease disability weight estimates. Of 1462 children screened, 1120 (77%; mean age 10.9 years; 46% female) underwent a TST. TST induration of 10 mm was documented in 78 (6.9%), and TST induration of 15 mm in 19 (1.6%). Twenty-one were TST-positive, and 17 children were diagnosed with LTBI; none had active TB. The highest rates of TST induration 10 mm were found in migrant children from Africa (16.6%) and Turkey (15.4%). Screening for LTBI was cost-effective if LTBI prevalence was 14%, with a progression rate of 5%; in case of lower LTBI prevalence, LTBI screening is cost-effective if progression rates to active TB are higher. School-based TB screening programmes targeting migrant children are cost-effective if populations with a relatively increased LTBI prevalence and/or high progression rates are included. .

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