

Economic Evaluation of MCH-FP Clinic-based Syphilis Screening in Rural Bangladesh

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Objective: Examine the costs and benefits of screening women of reproductive age visiting the MCH-FP centres, to identify the syphilis cases for treatment and estimate the cost-effectiveness of alternative screening strategies at different levels of syphilis prevalence.

Methodology: A field study was carried out to estimate the population-based rates of reproductive tract infections (RTIs), including STIs, in men and women in Matlab. The prevalence rate of syphilis was found to be about 0.8%, indicating a low prevalence of syphilis in rural Bangladesh. Based on the finding of the study, costs of screening and treatment of syphilis have been estimated assuming that the prevalence rate should be less than 3% in most rural communities. For costing the medical interventions, the market price of the laboratory tests and drugs was used. The study estimated the direct medical costs associated with screening and treatment of syphilis, excluding all direct non-medical and other indirect costs.

Results: If the prevalence rate of syphilis remains less than 6% in the population, screening with RPR, followed by TPHA, will be more cost-effective than performing RPR only. At the higher prevalence rates, RPR alone should be used for screening population for syphilis. The benefit-cost ratio of syphilis screening with treatment (treating both woman and her husband) was found to be about 4.5 for Bangladesh. Although the ratio was significantly higher than one, it was lower than the ratio obtained for the control of diarrhoeal diseases, childhood immunizations, and many other preventive interventions in the developing countries.

Conclusion: With the increased use of the MCH-FP centres, the unit cost of RPR and TPHA should fall significantly, which will further improve the benefit-cost ratio. Moreover, the reduced costs will make screening with RPR, followed by TPHA which is cost-effective at a much higher cut-off prevalence. In this study, the indirect benefit of curing syphilis, especially in preventing HIV infection, has not been considered. The prevalence of HIV in this population is not known, but if we assume the prevalence rate to be 1%, the probability of preventing an HIV infection through treatment of syphilis becomes so low that we can safely ignore this additional benefit at this low level of HIV and syphilis prevalence. However, at the higher prevalence rates, the benefits may become significant and should be taken into account.

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