The objectives of this study were to analyse cost and benefit components and to evaluate the relative cost-effectiveness (worth alternative) of routine screening HIV-antibody (AIDS) by using ELISA method in 314 females and 1,012 males patients with venereal diseases aged between 15-39 years attending clinic at Bangrak hospital for proper treatments as compared with screening HIV-antibody (AIDS) using also ELISA method by the expert's judgement.

This analysis was cross-sectional prospective study using mainly cost-benefit analysis and epidemiological study for searching number of venereal disease with HIV-positive cases with high probability for full blown AIDS and number of population to be HIV-infected from contacting those venereal disease cases.

The cost and benefit analysis was applied to two models, the first was routine screening model and the other was the expert's judgement model. The cost was calculated from additional cost incurred by making every routine screening. Benefit in the first model was estimated from predictable prevented HIV-positive cases and resources saving in the symtomatic treatment. Benefit in the other was calculated from predictable prevented full blown AIDS cases and the earning income foregone.

It was found that the routine screening test is much more cost-effective than the expert's judgement in every aspects. Similarly, the additional cost per 1 unit could save the treatment resources about 350 units and could prevent the loss of income foregone by 0.69 unit or approximately 1 unit. The prevalence rate should be 0.22 percent to make every routine screening feasible.