

Conclusions Socioeconomic factors were associated with female CT and GC rates at the census tract level in San Francisco. Further exploration as to the potential etiologic role of community-level factors, as well as innovative means to modify the environment to improve sexual health, are warranted.

Social and behavioural aspects of prevention oral session 4 - STI and HIV Risk Reduction Strategies: Considerations of cost, cost-effectiveness and potential impact

02-S4.01 EFFICIENCY VS EQUITY IN SCREENING: CONSIDERATIONS IN THE SCALE-UP OF RAPID SYPHILIS TESTING IN RURAL TANZANIA

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Background The burden of congenital syphilis remains high in many low-income countries, despite the availability of preventive therapy. Rapid syphilis tests (RSTs) could improve access to and cost-effectiveness of syphilis screening programs in low resource settings. The objective of this study was to inform programs how best to use RSTs based on relative efficiency, cost-effectiveness and access considerations.

Methods Incremental costs for RST screening in existing antenatal care settings in Tanzania were collected from nine health facilities varying in size, remoteness, and scope of services provided. The number of DALYs averted was modelled from project outputs. Economic costs per: woman tested, treated, and DALY were calculated for each facility. A sensitivity analysis was constructed to determine the impact of parameter and model uncertainty.

Results In surveyed facilities a total 6362 women were tested with RSTs over a costing period of 9 months, as compared with just 224 tested with RPR over a similar time period the previous year. Total economic costs for RST screening ranged from \$1758 to \$6375. Unit costs ranged from \$1.90 to \$6.06 per woman screened, \$17.76–\$63.19 per woman treated, and \$1.20–\$4.26 per DALY. Larger facilities had lower unit costs, suggesting that economies of scale exist in screening services. Results were sensitive to assumptions regarding supply wastage, frequency of supervision, and program duration.

Conclusion RST screening costs fall well below the WHO threshold for ‘highly attractive’ cost-effectiveness. Although RST costs are slightly higher than those for RPR, the number of women reached by screening services was increased under RSTs. Results suggest that RSTs can overcome critical barriers to antenatal syphilis testing and treatment. Through removal of supply chain barriers, RSTs enable the realisation of economies of scale in screening services. This suggests that larger facilities will benefit from implementation of RSTs. RSTs further allow for screening where a lack of infrastructure prevents consistent RPR testing. Therefore, in the effort to increase equity in access to screening, roll-out is also recommended in facilities not able to provide RPR screening. RSTs are currently being expanded throughout the country in the effort to increase access to syphilis screening in antenatal care. This could facilitate control of congenital syphilis and prevent countless unnecessary fetal and infant deaths.

02-S4.02 COST-EFFECTIVENESS OF SCREENING FOR CHLAMYDIA TRACHOMATIS IN DUTCH PREGNANT WOMEN

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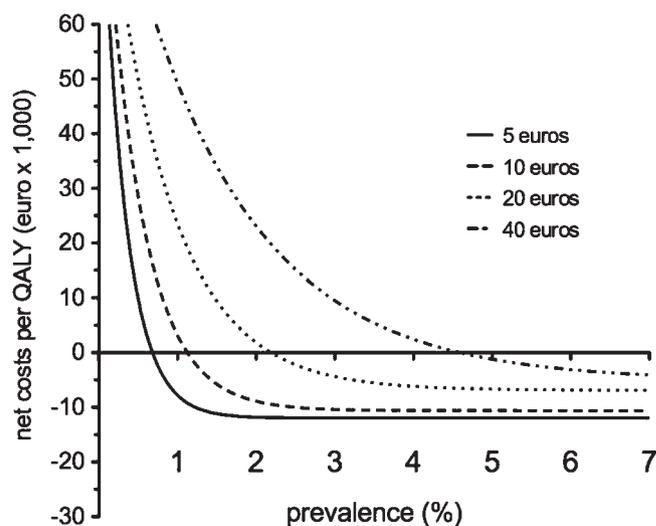
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Background *Chlamydia trachomatis* infections may have serious consequences for women, their offspring and pregnancy outcomes, but are largely asymptomatic. Prevention is therefore based on screening. Screening for Chlamydial infections during pregnancy is not part of routine antenatal care in many countries, as in the Netherlands.

Objective Cost-effectiveness analysis of *C trachomatis* screening during pregnancy.

Methods A health-economic decision analysis model was designed, which included not only potential health outcomes of *C trachomatis* infection for women, partners and infants, but included also premature delivery. The cost-effectiveness was estimated from a societal perspective using recent prevalence data from a population-based prospective cohort study among pregnant women in the Netherlands. The prevented costs were calculated by linking health outcomes with health care costs and productivity losses. Cost-effectiveness was expressed as net costs per major outcome prevented and was estimated in a base-case analysis as well as a sensitivity- and scenario analysis.

Results In the base-case analysis (current base-case test cost €12), the costs to detect 1000 pregnant women with *C trachomatis* were estimated at €378 300. Cost savings on complications were estimated at €924 600 resulting in net cost savings. Sensitivity analysis showed that net cost savings remained for a broad range of variation in underlying assumptions such as test costs (up to €32), proportion of complications that can be averted (between 25% and 75%), risk for PID (0.4% to 40%), and any other parameter within plausible ranges (between + to –25%). Cost savings were most sensitive to preterm delivery, but remained when preterm delivery was excluded (making the model comparable to other cost-effectiveness analyses). Scenario analysis showed even more cost savings with targeted screening for women’s age (≥20 years, 26–30 years, and <30 years) or pregnancy rate (first pregnancies only). At base-case costs, screening appeared cost-saving in populations with a chlamydial prevalence beyond 1.7%. At the extremes, with test costs as low as €5 cost savings would already occur beyond a prevalence of 0.6% and with test costs as high as €40 cost savings would occur beyond a prevalence of 4.7% see Abstract O2-S4.02 figure 1.



Abstract O2-S4.02 Figure 1 Costs per QALY gained by prevalence when using different test costs for *Chlamydia trachomatis* screening in pregnant women.