



Title	Epidemiological, Social, Diagnostic, and Economic Evaluation of Population-Based Chlamydia Screening
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Reference	Health Technol Assess 2007;11(8). March 2007. www.hta.ac.uk/execsumm/summ1108.htm

Aim

1. To determine the coverage and uptake of postal chlamydia screening and chlamydia prevalence in the general population.
2. To examine the social, emotional, and psychological effects of screening and partner notification for chlamydia.
3. To determine the best test/specimen to use for chlamydia screening.
4. To determine the most effective method of partner notification for chlamydia.
5. To identify criteria for targeted screening.
6. To determine how cost effectiveness of chlamydia screening can be maximized.

Conclusions and results

1. Screening invitations reached 73% (14 382/19 773) of those aged 16 to 39 years. Uptake of the invitation to provide a home-collected specimen was 39.5% (95% CI 37.7, 40.8%) in women and 29.5% (95% CI 28.0, 31.0%) in men aged 16 to 39 years. Chlamydia prevalence in those aged 16 to 24 years was 6.2% (95% CI 4.9, 7.8%) in women, 5.3% (95% CI 4.4, 6.3%) in men, and below 1% in men aged over 24 and women aged over 29 years.
2. Screening did not adversely affect anxiety, depression, or self-esteem. Participants welcomed the convenience and privacy of home-sampling.
3. Relative sensitivity of nucleic acid amplification test: 100% on male urine specimens, 91.8% on female urine, and 97.3% on vulvovaginal swabs.
4. 140 people (74% of eligible) participated in a randomized trial of partner notification methods. Compared with referral to a genitourinary medicine clinic, partner notification by practice nurses resulted in 12.4% more patients with at least one partner treated and 22.0% more patients with all partners treated.

5. The case-control study did not identify any additional factors that would help target screening.
6. Health service and patient costs (2005 prices) of home-based postal chlamydia screening were GBP 21.47 per invitation and GBP 28.56 per accepted offer (similar to the national pilot studies). Preliminary modeling found an incremental cost-effectiveness ratio (2003 prices) comparing annual screening to no screening in the base case of GBP 27 000/major outcome averted at 8 years. If screening uptake and pelvic inflammatory disease incidence were increased, the cost-effectiveness ratio fell to GBP 3700/major outcome averted.

Recommendations

Proactive screening for chlamydia using home-collected specimens is feasible and acceptable to the target population. Nucleic acid amplification tests can be used on mailed home-collected first-catch urine specimens and vulvovaginal swabs. Using empirical estimates of uptake and incidence of complications, proactive chlamydia screening was not cost effective.

Methods

A multicenter multidisciplinary series of linked studies was conducted. For details see Executive Summary link above.

Further research/reviews required

Needed research includes: a large multicenter RCT of chlamydia screening to determine whether reducing female reproductive tract morbidity and chlamydia transmission are achievable long term goals at reasonable cost; research on the effects of chlamydia screening on inequalities in sexual health; a systematic review of studies comparing performance of female urine/vulvovaginal specimens for *C trachomatis* diagnosis. (For more information see Executive Summary link above.)