

## **Web only Annex 1:**

**Sample size:** Assuming randomisation was to occur for individual patients, and an absolute increase of 10% in chlamydia tests performed in 15-24 year olds is considered as the minimum clinically important difference, the sample size required to detect this difference assuming 3% tested per year in the control group with 90% power and a 5% significance level, is 172 tested patients in each study arm. We assumed the average number of 15-24 year olds in each practice was 833, and from general practice (GP) chlamydia testing data between October and December 2006 estimated the intra-class correlation to be 0.373. The estimated design effect is 311 ( $1 + (833 - 1) * 0.373$ ) and results in the total number of patients in each study arm of 53,492, which equates to 65 practices. To allow for a small number of practices that may leave the National Chlamydia Screening Programme (NCSP) and therefore testing data would not be available, a further inflation of 25% was allowed for, resulting in a sample size of 80 practices in each study arm, 160 practices in total.

**Practice randomisation:** To guard against a chance imbalance between the study intervention and control practices in important covariates within Primary Care Trusts (PCTs) (potential testing differences due to local incentives and practices) and practice testing rates prior to the study, we stratified the 468 practices in 11 PCTs registered with the NCSP by their chlamydia testing rates in the prior year. The unit of randomisation was the practice, as patients can be seen and tested for chlamydia by any member of staff. We randomly selected 160 practices and stratified these by PCT and previous testing rate category and randomised to either the intervention arm (active group; n=77) or the control arm (usual NCSP support; n=83) using block randomisation. The trial statistician remained masked to allocation until the intention to treat analysis was complete.