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Chlamydia screening

Evaluating novel interventions for chlamydia screening

N Low

Useful adjuncts to a more general population chlamydia screening programme

Where should chlamydia screening be done? Who should be screened? How do we engage young men and vulnerable groups? How do we increase the uptake? Can the internet help? As a timely response to a recent call for innovative ways to encourage chlamydia screening in young people,¹ we publish two papers (pp 142 and 148) and a commentary (p 152) tackling some of these issues.

Götz *et al*'s pilot study in Rotterdam examined ways of encouraging chlamydia screening among African Caribbeans from Surinam and the Antilles (see p 148). In a previous population based study this group was at higher risk of infection than white Dutch people,² but less likely to respond to a postal invitation to provide home collected specimens for chlamydia testing.³ In this study, urine collection kits were offered by street outreach workers, or public health nurses providing sex education in vocational training schools. Participants could provide a specimen on site, or take a kit home with them. In the school and group settings uptake among the minority ethnic group was higher than in the postal intervention.³ The positivity rate in female vocational training school students was extremely high (27.9%, 95% CI 16.7% to 42.6%).

In contrast with targeting specific groups and settings, Novak and Karlsson set up an internet website to promote chlamydia testing to the whole adult population in one Swedish county (see p 142). Visitors to the site could request a test kit for home specimen

collection and mail it to a laboratory. About 60% of women and 40% of men requesting a kit returned a specimen. At a population level, this translated to about 3% of all women and 2% of all men aged 20–24 years having a test over an 8 month period. Both interventions included sexual health promotion. The authors of both studies suggest that their interventions could be useful adjuncts to a more general population chlamydia screening programme. In addition, Götz *et al* suggest that chlamydia screening in schools could help reduce chlamydia prevalence.

Before discussing where these new studies fit into the existing evidence, three basic principles need to be taken into consideration. Firstly, there are two approaches to chlamydia screening: systematic screening involves actively inviting the target population to be tested; opportunistic screening involves offering tests to people already attending a health service for another reason. The coordination, administration, and monitoring of the two systems are so different that they need to be considered as separate interventions. Secondly, chlamydia screening is part of a continuous programme that involves all steps from identifying the target population, through diagnosis, treatment, and partner notification of a high proportion of those eligible, to re-screening at regular intervals.⁴ Thirdly, according to the UK National Screening Committee, randomised controlled trials evaluating the intervention that will be delivered are required as evidence that a

screening programme will reduce morbidity or mortality,⁴ and, in the case of chlamydia, transmission.⁵

Studies on all aspects of chlamydia screening should ensure that they are designed using the most appropriate methods to answer the questions being asked

The first randomised trial of chlamydia screening found that systematic screening by endocervical sampling in women at high risk of chlamydia led to a reduction in pelvic inflammatory disease in the screened group 1 year later.⁶ More recently, systematic screening among female and male high school students in Denmark using self collected urine specimens was found to result in a similar reduction in the incidence of pelvic inflammatory disease.⁷ Opportunistic chlamydia screening, as practised in Sweden and the United States, and being rolled out in England,⁸ has not been evaluated in a randomised controlled trial.^{1 9 10} No trial has investigated the effects of screening on chlamydia transmission.

Taking these considerations into account, what do the studies published here contribute? Neither study involved randomisation or any control group so they cannot (and did not seek to) quantify any effect on primary outcomes of chlamydia screening. This is understandable in a pilot study such as that by Götz *et al*, but internet based promotion of chlamydia screening needs much more rigorous evaluation before its potential becomes clear. One of the settings for Götz *et al*'s study was vocational training schools. The core intervention was systematic screening, which is evidence based because schools were the setting for the Danish trial.⁷ The high participation and chlamydia positivity rates of female students from Surinam or Antilles in this Dutch study suggests that, in this age group at least, school based testing might promote engagement of a vulnerable group. As the authors say, this intervention is well worth studying in more detail. Chlamydia screening in schools alone,

however, would only contribute to controlling transmission as part of a general programme that included older women and men. In the other two settings outreach workers offered chlamydia screening opportunistically in community locations. The feasibility of this kind of intervention has been tested in other projects involving vulnerable groups in non-randomised studies,^{11 12} but it is not possible to say how this adds to an existing programme, nor whether it could contribute to reducing morbidity or transmission.

Novak and Karlsson's intervention was also systematic and population based. Its use of mailed home collected specimens also has similarities with the Danish trial,⁷ but with a novel mode of delivery. Unfortunately, we cannot tell whether internet based promotion of chlamydia screening is a useful adjunct to a more general programme because participants do not seem to have been asked if they had previously been tested for chlamydia or used any health services where opportunistic chlamydia screening was available. Participants in an intervention such as this might well be those most likely to have participated in other forms of screening. How would a screening programme ensure that there was no duplication of testing? How would this internet based intervention ensure that the people it enrolled were rescreened annually?

Studies about all aspects of chlamydia screening should ensure that they are designed using the most appropriate methods to answer the question that is being asked. Firstly, studies should be designed with a clear idea of the screening approach (systematic or

opportunistic) that they are evaluating. Secondly, studies that quantify a reduction in morbidity or transmission and attribute this to chlamydia screening should be randomised. Finally, all studies should identify clearly how their intervention fits into, and contributes to, the screening programme as a whole.

The National Institute for Health and Clinical Excellence (NICE) completed a stakeholder consultation in October 2005, and will publish public health guidance about interventions to reduce the transmission of sexually transmitted infections, including HIV, and reduce the rate of under 18 conceptions in 2006 (www.nice.org.uk). Chlamydia screening is one of the interventions being assessed and information from a wide variety of sources and study types addressing different aspects of effectiveness will be critically appraised and synthesised. This will help to ensure that delivering and running chlamydia screening programmes are based on the best available evidence.

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Competing interest: Nicola Low is conducting a rapid review of evidence for the effectiveness of

chlamydia screening, which will contribute to the NICE public health guidance.

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