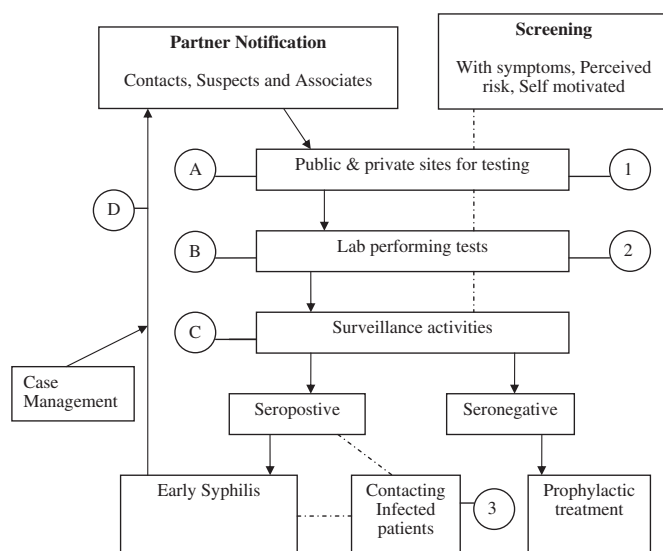


case, and \$1127 per early syphilis case identified. ICE of identifying partner showed a decline with the increase in number of attempts but the ICE values of case detection through partner notification did not show any systematic pattern.

**Conclusion** This study demonstrates that adding partner notification with SS is more CE in syphilis detection in Louisiana compared to case detection by SS alone. In terms of intensity of partner notification, it was found that increasing the number of attempts to contact the partners remained cost effective but due to variability in the number of attempts to contact cases, it was not possible to determine the optimal number of attempts.



**Abstract 05-S3.03 Figure 1** Steps involved in syphilis case detection by partner notification and selective screening and cost associated in each method. Partner notification: A- cost for phlebotomy B- cost of tests C- cost for surveillance D- cost for case management including travel. Selective screening: 1- cost for phlebotomy, 2- cost of tests, 3- cost to contact infected patients including phone call and letter or field visit related supplies and travel.

### 05-S3.04 INDIVIDUAL AND POPULATION LEVEL EFFECTS OF PARTNER NOTIFICATION FOR CHLAMYDIA TRACHOMATIS

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**Background** Partner notification (PN) is an essential part of the case management of sexually transmitted infections (STI), including Chlamydia trachomatis. Failure to notify current partners might cause re-infection of the index case, whilst failure to notify previous partners could result in ongoing transmission in the population. The impact of PN at both the individual and population level is, however, unclear.

**Methods** We developed an individual-based modelling framework called Rstisim, which can simulate transmission of any STI through a dynamic sexual network and track the history of an individual's partnerships. The effect of different PN strategies for *C trachomatis* was investigated in three models with increasing levels of complexity of the sexual partnership dynamics: a) an instantaneous contact model which is based on the widely used assumption that

sexual contacts happen instantaneously; b) a pair model where sexual partnerships last for a certain period; c) a triple model in which individuals can have up to two concurrent partnerships. We used data from the National Survey of Sexual Attitudes and Life-styles (Natsal) 2000 for 16–25-year-old women and men to parameterise the sexual behaviour of young adults.

**Results** The models all have a baseline chlamydia prevalence of 3%. In the triple model, chains of contacts can be seen at cross-section, whereas there are, by definition, no ongoing partnerships in the instantaneous contact model. In all three models, we find that a substantial proportion of partners (>10%) from partnerships that ended as far back as 18 months is infected with *C trachomatis*. We then investigated the population level effect of PN (with 50% success) as a complementary strategy to screening (at a rate of 0.1 per year). Increasing both the number of notified partners and the PN period results in lower levels of *C trachomatis*. Under the most realistic assumptions of the sexual partnership dynamic, most of the effect of PN results from notifying the current partner.

**Conclusions** We found that extended PN periods can efficiently identify new chlamydia-infected cases. At low screening levels, the additional benefit of PN in decreasing chlamydia prevalence is minor and primarily derives from notifying the current partners in order to prevent re-infection. This study exemplifies the differences between individual and population level outcomes of PN as an intervention for the management of *C trachomatis* infections.

### 05-S3.05 PARTNER NOTIFICATION FOR STI AND HIV: PATIENTS' VIEWS AND EXPERIENCES OF NOTIFYING PARTNERS

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**Background** Partner notification (PN) involves contacting the sexual and needle-sharing partners of patients diagnosed with STI/HIV. Effective PN can prevent onward STI/HIV transmission. However, little is known about the socio-cultural factors affecting PN. We synthesised qualitative literature on views and experiences of PN among people recently diagnosed with STI/HIV and their contacts.

**Methods** We conducted a systematic search of 4 electronic databases for PN literature from 1990 to August 2009. Meta-ethnography was used to synthesise data from the 16 studies that met our inclusion criteria. We identified key metaphors and themes from individual studies and compared them and their explanations with other studies to enable further interpretations. We then examined the emerging concepts that have implications for STI/HIV PN policy and programs.

**Results** Our synthesis revealed that PN is influenced not only by type of partnership or infection but also by the socio-cultural, religious, and legal framework governing sex and sexuality. Paradoxically while PN is perceived as altruistic, and as a moral responsibility towards partners, it is also feared as 'social suicide'. 'Breaking the bad news' is perceived as a difficult and potentially troublesome task; however, patient referral is preferred to provider referral. STI/HIV diagnosis invokes 'embodied shame' which can result in non-disclosure, or selective disclosure, or confronting and blaming the partner, especially a main current partner. While the experience of notifying partners is typically not as bad as expected, it occasionally results in violence against women. Injecting drug users felt less able to notify drug-using partners due to legal implications. Provider-led