

**Conclusions** In a busy inner-city STD clinic, EPT is more likely to be accepted by women, those who are younger and those infected with Ct. Re-infection rates among patients returning to the clinic suggest that EPT reduces the risk of re-infection, with the greatest benefit among those originally infected with GC.

### 05-S3.02 IMPLEMENTATION OF AN EXPEDITED PARTNER THERAPY (EPT) PROGRAM IN AN INNER-CITY STD CLINIC

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**Background** Expedited partner therapy (EPT) is the practice of treating sex partners of persons with sexually transmitted diseases (STD) without an intervening medical evaluation. In 2006, the CDC issued guidelines for providing EPT to heterosexual patients diagnosed with gonorrhoea/chlamydial infection, allowing them to deliver treatment to their partner(s). In November 2006, the Denver Metro Health (STD) Clinic (DMHC) began offering EPT. We describe EPT implementation challenges and process improvements.

**Methods** Three phases of implementation are described: 1) the pilot phase, 2) implementation of a quality assurance protocol and 3) initiation of a prompt in the electronic medical record (EMR). Data were extracted from the EMR to calculate acceptance rates of EPT among the 2056 eligible patients over this time period. Rates were examined by month and for each phase.

**Results** Before initiation of the pilot phase, a protocol to dispense EPT was developed and staff trained. During the pilot phase (September 2007–April 2008), patient acceptance rates averaged 17% (range: 8%–22%). As rates were not improving, EMR data were examined to determine potential areas for intervention. At DHMC, clinical services are provided by health care partners (HCP) and licensed nurse practitioners (LNP). Analyses revealed significant differences in patient acceptance of EPT by provider type: HCP providers were less likely to have patients accept EPT than LNP providers (prevalence ratio=1.7, 95% CI: 1.5% to 1.9%), likely due to the nature of the visit and the volume of patients seen by HCP providers. Targeted re-training was initiated and quality assurance reports were generated monthly. Although the acceptance rate increased significantly to 22% ( $p=0.04$ ), there was no indication that rates were increasing with time. In January 2009, the EMR was amended, requiring all providers to document EPT referral, accept-

ance or refusal (and reason for refusal), before closing the patient EMR. Rates improved significantly to an overall rate of 49% ( $p<0.01$ ) through October 2010 (Abstract O5-S3.02 figure 1). Reasons for refusal among those who did not accept EPT included that partner would be notified (42.5%), partner was being treated (30.1%) or the patient was not able to contact the partner (21.9%).

**Conclusions** In a busy inner-city STD clinic, an automated EMR prompt that forces documentation of EPT provided the greatest success. An EPT acceptance rate of 50% may be the optimum rate in a real-world setting.

### 05-S3.03 INCREMENTAL COST-EFFECTIVENESS OF INTRODUCING PARTNER NOTIFICATION WITH SELECTIVE SCREENING FOR STD CONTROL IN LOUISIANA

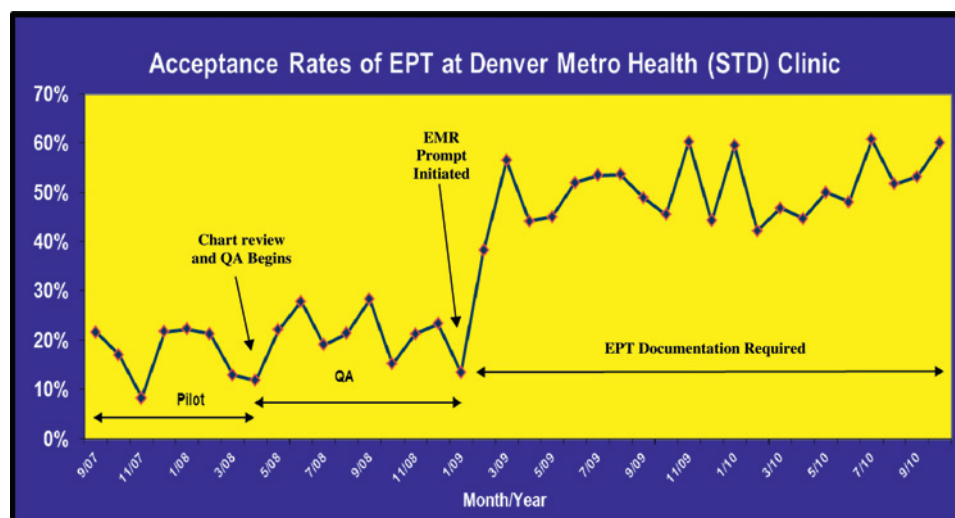
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**Background** Selective screening and partner notification are the two strategies used by the STD control programs in USA to reduce and or eliminate syphilis. So far no study has assessed the cost and effectiveness of either approach at the state level. The objective of this study is to assess the incremental cost effectiveness (ICE) of adding partner notification with selective screening (SS) in detecting early syphilis and to measure ICE of intensity of partner notification in Louisiana.

**Method** The cost effectiveness analysis (CEA) was done from the point of view of health care delivery. Micro costing approach was used in cost analysis and the CEA was performed by using the recurrent direct costs associated with detecting syphilis by SS and by SS with partner notification see Abstract O5-S3.03 figure 1. For ICE of intensity of partner notification, cost was calculated for every attempt made to contact a partner and effectiveness was calculated by the number of partners identified as well as the number of cases identified through partner notification.

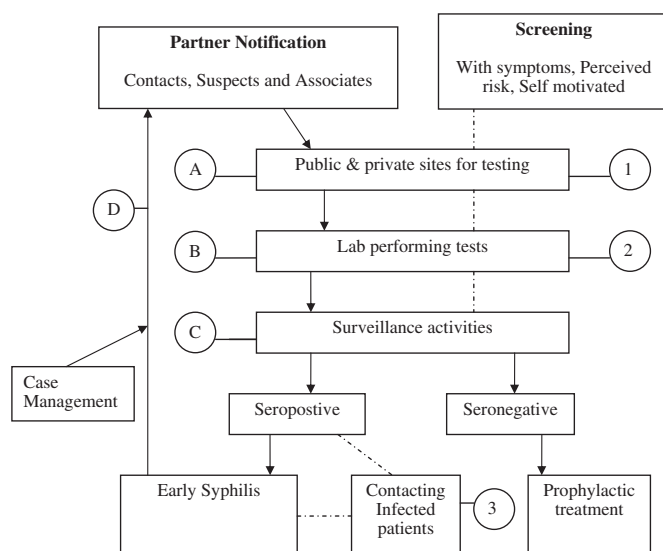
**Results** The estimates of direct costs associated with SS was \$6.4 million for 1005 early syphilis cases detected and \$6.7 million for SS with partner notification. Partner notification detected additional 279 early syphilis cases with an additional cost of \$314 498. Incremental cost of adding partner notification with SS was \$2808 per primary and secondary syphilis case, \$1883 per early latent syphilis



Abstract O5-S3.02 Figure 1 Acceptance rates of EPT Denver Metro Health (STD) clinic.

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