

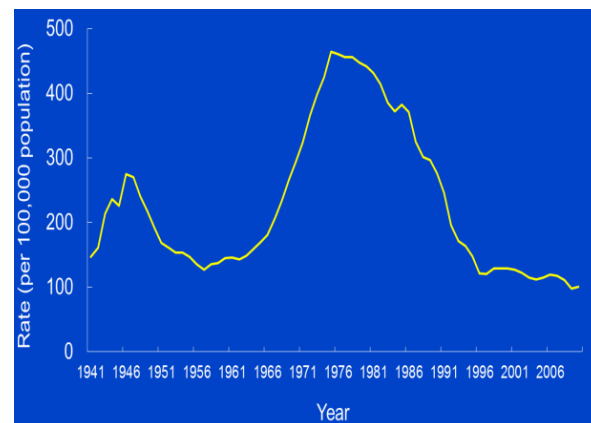
# Assessing Different Partner Notification Methods for Assuring Partner Treatment for Gonorrhea

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## BACKGROUND

- In the United States, an estimated 700,000 new *N. gonorrhoeae* infections occur each year. Gonorrhea is the second most commonly reported bacterial STD.



- Many STD programs interview patients diagnosed with gonorrhea for partner identifying and contact information. Trained staff, Disease Intervention Specialists (DIS), then locate and notify partners (Figure 1).
- Few programs can use DIS to contact all partners for all cases. Many programs ask some patients to notify their partners, as is the case with most gonorrhea diagnosed outside public sector clinics.
- In some areas, patient referral may be accompanied by medications for partners: Patient-delivered Partner Therapy, or PDPT (Figure 2).
- We examined how patterns of notifying and treating partners of persons with gonorrhea differed by partner notification approaches.
- We used a cascade model in which we begin with the number of partners eligible for treatment and then move to the proportion contacted and the proportion receiving treatment.
- The object is to observe what mix of partner notification interventions could best serve the goals of treating as many partners as possible with adequate treatment.

## METHODS

We constructed treatment cascades to measure the effectiveness of each partner notification method, using the following samples and data.

- Provider referral: Convenience sample; 2010/2011 clinic data from 3 states with gonorrhea cases diagnosed in STD clinic
  - N = 1,959 patients, 4,595 partners
- Patient referral: 10 estimates from 7 studies (published from 2005-2011) with gonorrhea patients
  - N = 3,853+ patients, 7,490 partners
- Patient delivered therapy: 5 estimates from 5 studies (published from 2005-2011)
  - N = 1,781+ patients, 3,125 partners

For each treatment cascade, we calculated the:

- Proportion of partners notified
- Proportion of partners treated
- Notification ratio (number notified per 100 patients),
- Treatment ratio (number treated per 100 patients)

Figure 1: Partner notification approaches

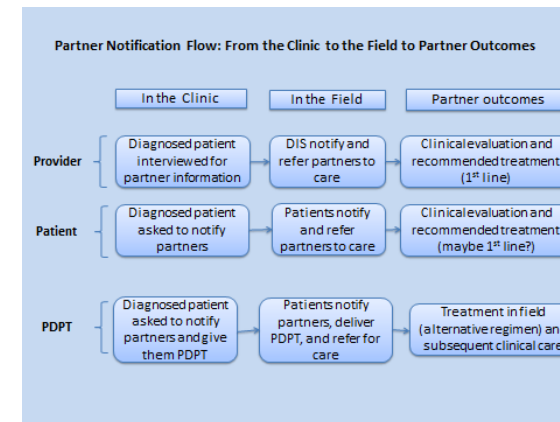


Figure 2: Expedited Partner Therapy

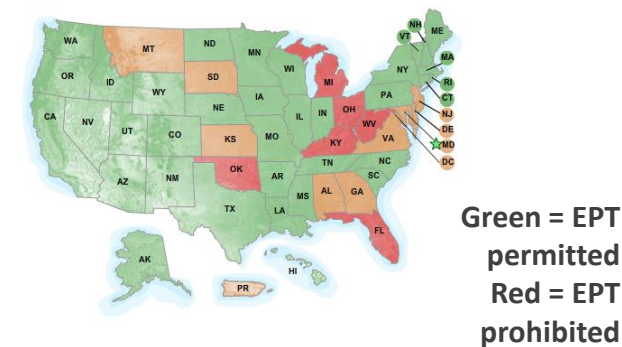


Figure 3: Treatment cascades

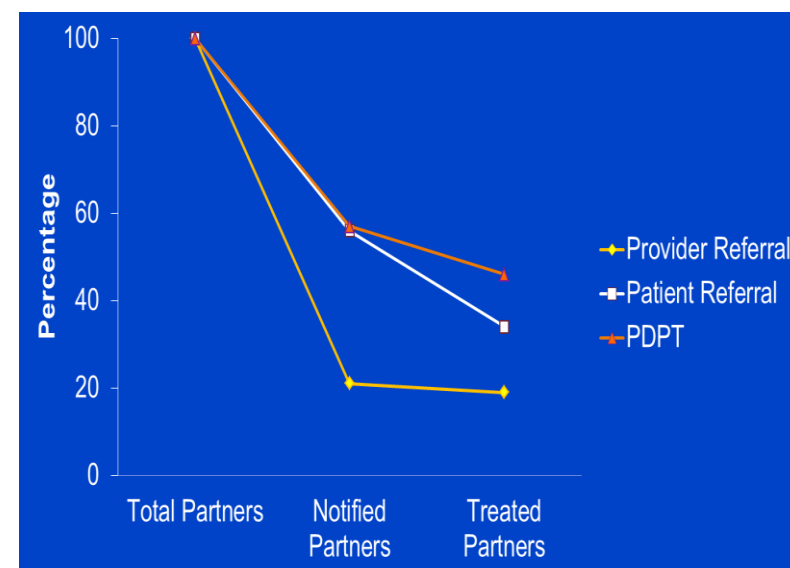
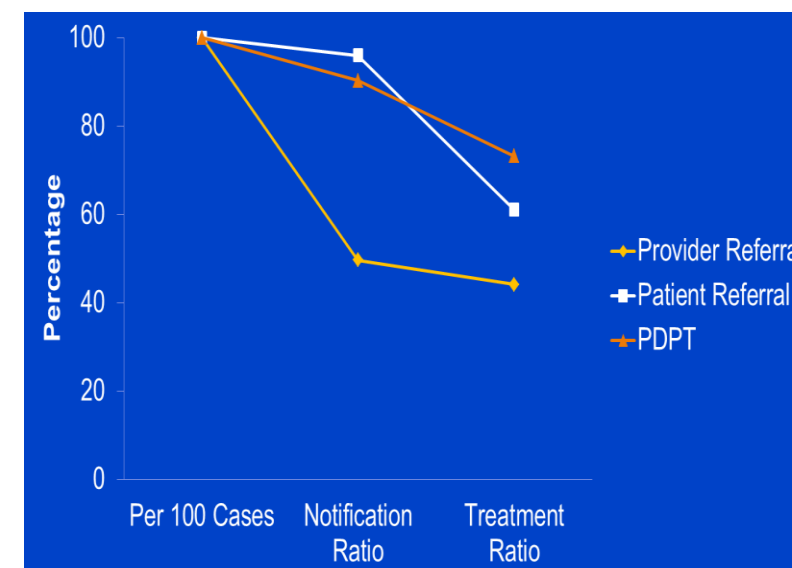


Figure 4: Notification and treatment ratios



## RESULTS & DISCUSSION

For provider referral: 21% of partners were contacted, 19% treated (Figure 3). The primary reason for the low fraction of contacts is that DIS only tried to contact a small proportion of partners.

For patient referral: 56% were notified, 34% were treated (Figure 3). A greater proportion of partners were notified than for provider referral, but a smaller proportion of those notified were treated (Figure 4).

For PDPT: 57% were notified, 46% were treated. The increment in the proportion of those treated compared to patient referral likely reflects the ease of treatment.

**Limitations & future directions.** Provider referral reports are typically verified, whereas patient referral and PDPT data were largely self-reported. We did include *previously treated* in provider referral outcomes. We also expect more program data to improve provider referral estimates.

**Conclusions.** Our ultimate goal is to contribute to the maximum prevention impact in STD prevention programs through the optimal mix of PN interventions across the population diagnosed with gonorrhea. Each method of partner notification has advantages and drawbacks, including cost and scalability, as well as efficacy.

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