

## Concurrency

To better understand the dynamics of STDs and HIV—why individuals can engage in the same risk behavior(s), but have different levels of risk contracting or transmitting STDs and HIV—researchers are increasingly examining the determinants and consequences of sexual networks. Two concepts are key in sexual networks—size and structure.<sup>i</sup> In a sexual network, STDs/HIV are rapidly transmitted when the network is large (i.e., individuals have large numbers of ties to others in the network).<sup>ii</sup> In addition, STD/HIV transmission is sustained when individuals are “core” or central to a network (i.e., have high incidence of STDs/HIV and high levels of risky behavior).<sup>iii</sup> In contrast, individuals who are “peripheral” to a network are not as likely to transmit STDs/HIV because they have low incidence of STDs/HIV and low levels of risky behavior.

Concurrency occurs when partnerships overlap in time.<sup>iv</sup> The Region X IPP added the “Concurrency” item to the new IPP lab slip based on the literature, research conducted by the California Department of Public Health (CA DPH), recent findings from the Region VI IPP, and CDC interest in asking questions about concurrency at the national, regional, state and local levels.

CA DPH’s research greatly informed the Region X IPP’s work. CA DPH conducted The CT Risk Factor Study in which they found that a “patient indicating that a recent partner(s) possibly had concurrent partners” was strongly predictive of chlamydia positivity. Patients completed questionnaires in which they were asked, “At any time within the past 12 months (and “within the past 3 months” was asked in a later question), did any of your male partners have sex of any type with someone else while they were still in a sexual relationship with you?” *Response options included:*

- Yes, definitely (because sometimes you know)
- Not sure, it is possible (because of the desire to get a some level of intuition or suspicion that the patient had about her partner or partners)
- No, it is very unlikely

Based on a conversation with Holly Howard, one of the CA DPH investigators, David Fine and Wendy Nakatsukasa-Ono developed the wording on the new IPP lab slip.

Beyond the literature and research conducted by CA DPH, the Region X IPP was informed by the Region VI IPP’s recent work in collecting concurrency data. Initial findings from Louisiana IPP sites align with CA DPH’s finding that concurrency is predictive of chlamydia positivity. Finally, CDC is exploring the possibility of adding a concurrency question to National Health and Nutrition Examination Survey (NHANES) and National Survey of Family Growth (NSFG), and CHT believes that there will continue to be a push to ask question about concurrency. As always, we in Region X want to be at the forefront of efforts to contribute to the knowledge base on this issue.

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<sup>i</sup> Jolly, AM, Muth, SQ, Wylie, JL, and Potterat, JJ. Sexual networks and sexually transmitted infections: a tale of two cities. *J Urban Health* 2001;78(3):433-45.

<sup>ii</sup> Wohlfeiler, D and Potterat, J. How do sexual networks affect STD/HIV prevention? San Francisco, California: University of California San Francisco, Center for AIDS Prevention Studies and AIDS Research Institute, April 2003.

<sup>iii</sup> Ibid.

<sup>iv</sup> Doherty, IA, Padian, NS, Marlow, C, and Aral, SO. Determinants and consequences of sexual networks as they affect the spread of sexually transmitted infections. *JID* 2005;191(Suppl 1):S42-S54.