

## Background

- PWID are not considered a priority population for STI control under current national STI testing and treatment guidelines. Therefore, we have no national STI prevalence data for this population.
- Despite this, there are reasons to suspect high rates of STI in this group including National HIV Behavioral Surveillance Data that indicate high rates of concurrent sexual partnerships, limited condom use, and engagement in transactional sex by both women and men.
- Offering STI control services at non-traditional community-based locations has been proposed as a novel way to increase the reach of STI control efforts, but in the case of syringe exchange program, this strategy has yet to be routinely implemented.

## Objectives

- 1) To assess the acceptability of co-locating STI screening with syringe exchange program (SEP) services
- 1) To estimate prevalence of chlamydia and gonorrhea among SEP users

## Methods

### Eligibility

- Participants were 1) ≥ 18 years old, 2) had injected drugs within the last month, 3) had had sex within the last month, and 4) spoke English.

### Study Flow

- Participants completed a self-administered survey about their drug use, sexual behaviors, and STI history in the prior 6 months, followed by collecting self-obtained specimens for STI testing from up to three anatomic sites: genital, oropharynx, and rectal.
- Participants then completed a short post-test survey about their experience.
- Specimen(s) were tested for chlamydia (CT) and gonorrhea (GC) by the NJ infectious disease lab using nucleic acid amplification testing.

### Analysis

- Descriptive statistics were calculated for demographic and prevalence data, and chi-square and Mann-Whitney U tests were performed to assess factors associated with STI positivity (defined as CT or GC infection at any site).

Table 1: Sample Description

Characteristic	Female N = 60 (%)	Male N = 60 (%)	P
Age (median, IQR)	31 (25, 37)	33 (28, 42)	0.10
Race			
White	47 (78.3%)	41 (68.3%)	<b>0.04</b>
Black	4 (6.7%)	12 (20.0%)	
Hispanic/Latino(a)	3 (5.0%)	3 (5.0%)	
Other	6 (10.0%)	4 (6.7%)	

Table 2: Sexual Orientation, Sexual Behavior and Sexual Risk Factors Among Sexually Active Male and Female Injection Drug Users

	Women (N=60)	Men (N=60)	P
Sexual Orientation			
Bisexual	18/59 (30.5%)	5/60 (8.3%)	<b>.01</b>
Heterosexual	39/59 (66.1%)	52/60 (86.7%)	
Homosexual	3/59 (5.1%)	2/60 (3.3%)	
Sexual behaviors, 6 months			
Oral sex	52/60 (86.7%)	48/60 (80.0%)	.33
Vaginal sex	53/60 (88.3%)	41/60 (68.3%)	<b>.01</b>
Anal sex	14/60 (23.3%)	9/60 (15.0%)**	.25
Sexual risk factors, 6 months			
Number of sex partners (median, IQR)	5 (2,10)	2 (1,5)	<b>.003</b>
Inconsistent condom use	49/57 (86.0%)	46/54 (85.2%)	.91
STI within 6 months	5/52 (9.6%)	4/57 (7.0%)	.62
Transactional sex	36/57 (63.2%)	10/55 (18.2%)	<b>.01</b>
Sex with PWID	31/58 (53.4%)	40/57 (70.2%)	.16
Sex with HIV-positive partner (vs. no)			<b>.04</b>
Yes	0/59 (0.0%)	2/57 (3.5%)	
Unsure	14/59 (23.7%)	5/57 (8.8%)	

Table 3: Distribution of CT/GC infections by microorganism and gender, among sexually active male and female injection drug users

	Women (N = 60)	Men (N = 60)	Total (N = 120)
Gonorrhea alone	5 (8.3%)	3 (5.0%)	8 (6.7%)
Chlamydia alone	8 (13.3%)	2 (3.3%)	10 (8.3%)
Gonorrhea and Chlamydia	3 (5.0%)	-	3 (2.5%)

Table 4: Infections by Anatomic Site\*

	Women (N = 60)	Men (N = 60)
Genital only	3/59	2/60
Pharyngeal only	5/55	3/21
Rectal only	0/6	0/5
Genital and Pharyngeal	6/55	0/21
Rectal and Pharyngeal	1/6	0/5
Genital and Rectal	0/6	0/5
Multiple site	1/6	0/5

\*Number of positive tests at anatomic site over number of samples collected per anatomic site.

## Return Rates & Preferences for STI Screening

- In this sample, rates of return for results were nearly 60% among those without CT/GC.
- 3:4 persons screening positive returned for results and received timely treatment of their infection.
- 86% preferred to receive future STI screening at SEP vs. traditional clinic

## Discussion

**Among this convenience sample of PWID, we found high rates of STI. Rates were similar to those in STI clinics and other outreach projects and substantially higher than the general population nationally. Findings suggest that extra-genital screening is essential to disease finding efforts in this population. This may be influenced by sexual behaviors, particularly among women reporting transactional sex where oral sex may present a substantial risk.**

## Limitations

- Small exploratory study with a convenience sample.
- Participants were not required to collect all sample types and thus, we may have missed some infections.
- Given that PWID who exchange syringes are more focused on preventing parenteral infection to preserve health, our findings most probably represent conservative estimates of infection in this high-risk population.
- High levels of oral GC infection could be attributable to environmental contaminants at study/lab sites.

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