

Who are the Sex Partners of Male Injection Drug Users and What are the Correlates of Unprotected Sex With These Partners in Delhi and Imphal, India?

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Conclusions and Implications

- Regular and non-regular partners (i.e., non-commercial, spouse or live-in partners) may be at high risk for HIV and STIs through unprotected sex with their injecting partners. The majority of sex partners of injection drug users (IDUs) are non-injectors. This represents a potential to bridge between higher and lower risk groups.
- Sexual risk reduction interventions for non-regular and commercial partners of IDUs should be implemented through outreach in market places and red light areas. However, because regular partners of IDUs cannot be readily reached in such public venues, regular partners may best be targeted with sexual risk reduction interventions directly through the IDUs themselves.
- Male-to-male sexual partnerships were common in Delhi and condoms are not used consistently in these relationships. Prevention efforts must go beyond focusing on heterosexual transmission of HIV and STIs.
- Although it is encouraging that IDUs in Delhi who knew they were HIV-positive were less likely to practice inconsistent condom use compared to those who had never tested, over one-half had never been tested for HIV.
- Drug dependence treatment programs must also emphasize sexual risk reduction, including sexual activity triggered by disinhibition.



Background

Risky sexual practices of IDUs are not well studied. This presentation describes the sex partners of male IDUs in Delhi and Imphal, the nature of these sexual relationships, and factors associated with inconsistent condom use in these relationships.

By examining characteristics at the partnership (dyad) level, in addition to the individual level, it allows us to understand the social interaction between the partners and how that may influence risky sexual behavior between the pair.

Methods

Respondent-driven sampling (RDS) was used to recruit IDUs >16 years of age from Delhi (n = 800) and Imphal (n = 800) from September to December 2006 into a cross-sectional study on HIV risk behaviors. Respondents reporting sex in the last 12 months were asked detailed information about their three most recent sex partners. We report characteristics and correlates of unprotected sex in sexual partnerships (dyads) of male respondents, who represented the majority of the sample (Delhi: n = 783; Imphal: n = 766).

Respondents were interviewed face-to-face about:

- Sociodemographic information,
- Sexual and drug injection risk behaviors, and
- Knowledge of HIV prevention.

Detailed information about the last three sex partners in the last 12 months, including socio-demographic characteristics, type and sex of partner, and risk behaviors with these partners.

Sex partners' characteristics were based on self-reports by index respondents.

To determine factors associated with inconsistent condom use during sexual relationship within respondent-partner sexual dyads, multilevel logistic regression analysis with nested random effects was conducted. The analysis took into account the correlation between respondents recruited by the same person by using the recruiter's ID number as the clustering variable. Non-significant variables in multivariate analysis were dropped, with the exception of marital status and number of sex partners, which were retained in the multivariate analysis.

Characteristics of Male IDU Index Respondents Who Had Sex in the Last 12 Months in Delhi and Imphal

A total of 545 (70%) and 402 (52%) male IDUs reported having sex in the last 12 months in Delhi and Imphal, respectively.

Characteristics of male IDUs in Delhi and Imphal differed significantly (Table 1)

- Index IDUs in Delhi had fewer years of schooling, were less likely to be married or cohabiting, and more likely to be living on the streets compared to IDUs in Imphal.
- Index IDUs in Delhi had been injecting for a shorter duration of time, however, they injected more frequently compared to IDUs in Imphal.
- Index IDUs in Delhi had more sex partners in the last 12 months than IDUs in Imphal.

	Delhi (n = 545)	Imphal (n = 402)
Mean age	33	32
More than > 5 years of schooling (%)	24	87
Currently earn money (%)	84	49
Living on the streets (%)	68	0
Married or cohabiting (%)	34	66
Drug injection duration (%)		
0 – 5 years	70	35
6 – 10 years	24	29
>10 years	6	36
Drug injection frequency (last 1 month) (%)		
Never to once/week	18	38
Twice/week to once daily	19	26
More than once/day	63	36
Number of sex partners (last 12 months) (%)		
1	42	82
2 – 5	37	16
> 5	20	2

For a copy of the full report, visit the Population Council booth (#449) or contact Waimar Tun (wtun@popcouncil.org).

Results

The 545 Delhi IDUs reported 847 sex partners and the 402 Imphal IDUs reported 576 sex partners (sexual dyads).

What type of partners do male IDUs have? (Table 2)

Commercial partners (60%) were the most common among sex partners in Delhi, while regular partners (65%) were most common among sex partners in Imphal.

Over 15% of sexual dyads in Delhi were male-to-male partnerships, while there were almost no male-to-male partnerships in Imphal. Among the index respondents in Delhi, 11% reported sex only with male partners, and 7% reported sex with both male and female partners in the last 12 months.

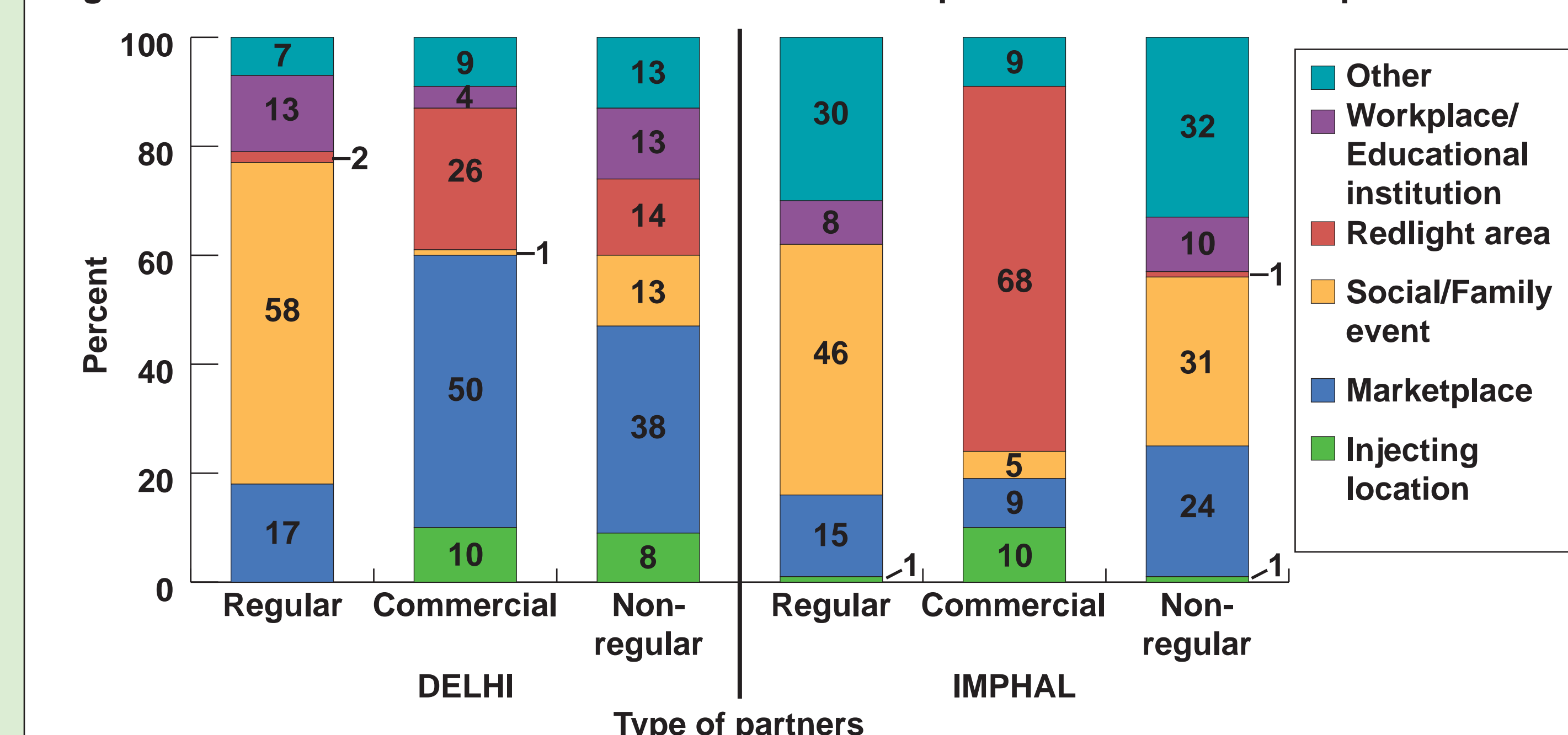
Table 2 Sex partners of male IDUs by gender and type of partner in Delhi and Imphal

Type of partners	Delhi (n = 847)			Imphal (n = 576)		
	Female	Male	All	Female	Male	All
Regular	22	2	24	64	1	65
Commercial	48	12	60	19	1	20
Non-regular	13	3	16	14	1	15
Total	83	17	100	97	3	100

Where male IDUs meet their sex partners? (Figure 1)

- The market place and red light areas were common places to meet commercial and non-regular sex partners. Injection location was not a common place of first meeting their sex partners.
- Sexual risk reduction programs should target partners of IDUs in marketplaces and red light areas.

Figure 1 Venues where male IDUs first met their sex partners in Delhi and Imphal



What factors are associated with inconsistent condom use in sexual dyads?

Inconsistent condom use was reported in 67% (Delhi) and 80% (Imphal) of the sexual dyads.

Of the sexual dyads with inconsistent condom use, the majority were with sex partners who did not inject drugs (76% in Delhi and 95% in Imphal).

Multivariate analysis results

Delhi

Male IDUs were significantly more likely to practice inconsistent condom use if the:

- index IDU was married or cohabiting,
- partner was male/transgender,
- partner was a regular or non-regular (compared to commercial) partner, or
- partner shared needles/syringes with the index IDU (versus if the partner didn't inject at all).

However, they were significantly less likely to practice inconsistent condom use if the:

- index IDU had tested HIV-positive (compared to those who never tested).

Imphal

Male IDUs were significantly more likely to practice inconsistent condom use if the:

- index IDU injected more often in the last 1 month, or
- partner was a regular or non-regular (compared to commercial) partner.

However, male IDUs were significantly less likely to practice inconsistent condom use if the:

- index IDU had 2–5 partners in the last 12 months than if the index had only 1 partner (Imphal only).

Table 3 Univariate and multivariate correlates of inconsistent condom use within sexual dyads in Delhi and Imphal (Combined), n = 1,423

	Delhi		Imphal	
	Adjusted Odds Ratio	p-value	Adjusted Odds Ratio	p-value
Married or cohabiting				
No	1		1	
Yes	3.77	0.044	2.79	0.143
Number of sex partners in last 12 months				
1	1		1	
2 – 5	0.92	0.904	0.21	0.049
> 5	0.42	0.286	0.06	0.158
Drug injection frequency in last month				
Never to once/week	—	—	1	
Twice/week to once daily	—	—	3.66	0.086
More than once/day	—	—	5.88	0.015
HIV testing				
Never tested	1		—	—
Tested and positive	0.05	0.012	—	—
Tested and negative	0.47	0.250	—	—
Tested, don't know result	3.24	0.330	—	—
Sex of partner				
Female	1		1	
Male/Transgender	3.87	0.044	0.02	0.060
Type of sex partner				
Commercial sex worker	1		1	
Regular	46.36	< 0.001	26.20	< 0.001
Non-regular	6.60	< 0.01	8.22	0.013
Risky injection with partner				
Partner doesn't inject	1		—	—
Shares N/S with partner	5.69	0.024	—	—
Doesn't share N/S with partner	2.85	0.218	—	—
Don't know if partner injects	0.07	0.053	—	—

N/S: Needle or syringe

Risky injection with partner is defined as any lending or borrowing N/S, backloading/frontloading with partner, sharing N/S or equipment, drawing drugs from a common container with partner.

