‘Women at risk’: the health and social vulnerabilities of the regular female partners of men who inject drugs in Delhi, India

Vartika Sharma\textsuperscript{ab}, Avina Sarna\textsuperscript{a}, Stanley Luchters\textsuperscript{bcde}, Mary Sebastian\textsuperscript{a}, Olivier Degomme\textsuperscript{b}, Lopamudra Ray Saraswati\textsuperscript{a}, Ira Madan\textsuperscript{f}, Ibou Thior\textsuperscript{g} & Waimar Tun\textsuperscript{h}

\textsuperscript{a} Population Council, New Delhi, India
\textsuperscript{b} International Centre for Reproductive Health, Ghent University, Ghent, Belgium
\textsuperscript{c} Centre for International Health, Melbourne, Australia
\textsuperscript{d} School of Public Health and Preventive Medicine, Monash University, Melbourne, Australia
\textsuperscript{e} School of Public Health, University of the Witwatersrand, Parktown, South Africa
\textsuperscript{f} Sahara Centre for Residential Care and Rehabilitation, New Delhi, India
\textsuperscript{g} ARISE Project, PATH, Washington, USA
\textsuperscript{h} Population Council, Washington, USA

Published online: 02 Dec 2014.

To cite this article: Vartika Sharma, Avina Sarna, Stanley Luchters, Mary Sebastian, Olivier Degomme, Lopamudra Ray Saraswati, Ira Madan, Ibou Thior & Waimar Tun (2014): ‘Women at risk’: the health and social vulnerabilities of the regular female partners of men who inject drugs in Delhi, India, Culture, Health & Sexuality: An International Journal for Research, Intervention and Care, DOI: 10.1080/13691058.2014.979885

To link to this article: http://dx.doi.org/10.1080/13691058.2014.979885

PLEASE SCROLL DOWN FOR ARTICLE
‘Women at risk’: the health and social vulnerabilities of the regular female partners of men who inject drugs in Delhi, India

Vartika Sharmaa,b*, Avina Sarana, Stanley Luchtersb,c,d,e, Mary Sebastiana, Olivier Degommeb, Lopamudra Ray Saraswata, Ira Madanf, Ibou Thiorg and Waimar Tunh

aPopulation Council, New Delhi, India; bInternational Centre for Reproductive Health, Ghent University, Ghent, Belgium; cCentre for International Health, Melbourne, Australia; dSchool of Public Health and Preventive Medicine, Monash University, Melbourne, Australia; eSchool of Public Health, University of the Witwatersrand, Parktown, South Africa; fSahara Centre for Residential Care and Rehabilitation, New Delhi, India; gARISE Project, PATH, Washington, USA; hPopulation Council, Washington, USA

(Received 12 May 2014; accepted 19 October 2014)

Needle and syringe sharing is common among people who inject drugs and so is unprotected sex, which consequently puts their sex partners at risk of sexually transmitted infections (STIs) including HIV and other blood-borne infections, like hepatitis. We undertook a nested study with the regular female partners of men who inject drugs participating in a longitudinal HIV incidence study in Delhi, India. In-depth interviews were conducted with female partners of 32 men. The interviews aimed to gather focused and contextual knowledge of determinants of safe sex and reproductive health needs of these women. Information obtained through interviews was triangulated and linked to the baseline behavioural data of their partner (index men who injected drugs). The study findings illustrate that women in monogamous relationships have a low perception of STI- and HIV-related risk. Additionally, lack of awareness about hepatitis B and C is a cause of concern. Findings also suggest impact of male drug use on the fertility of the female partner. It is critical to empower regular female partners to build their self-risk assessment skills and self-efficacy to negotiate condom use. Future work must explore the role of drug abuse among men who inject drugs in predicting fertility and reproductive morbidity among their female partners.

Keywords: men who inject drugs; risk behaviour; regular partners; reproductive health; India

Background

India has a large population of people who inject drugs – 177,000 (NACO. National AIDS Control Programme Phase III: State Fact Sheets 2012) – with an estimate of 17,000 in Delhi (NACO. National AIDS Control Programme Phase III: State Fact Sheets 2012). The HIV prevalence among people who inject drugs in Delhi is 18.3% (Department of AIDS Control, MOHFW 2011). Needle syringe sharing is common among people who inject drugs and so is unprotected sex, which puts them at risk for HIV and hepatitis and also exposes their sexual partners to these infections through unsafe sex (Kumar et al. 2008; NACO 2010; Sarna, Tun, and Bhattacharya 2007).

The transmission of HIV from people who inject drugs to their sexual partners is evident from various studies conducted in Asia. El-Bassel et al. (2013) reported an HIV...
prevalence of 10.4% among drug using female partners of men who inject drugs in Kazakhstan (El-Bassel et al. 2013). Similar findings were reported from Chennai, India, where 30% of people who injected drugs and 5% of their female sex partners were found to be HIV-infected; sexually transmitted infections (STIs) were also common among female sex partners (Panda et al. 2005). In Manipur, India, HIV infections among wives of men who injected drugs rose from 6% in 1991 to 45% in 1997 (Chakrabarti, Panda, and Chatterjee 2000; Panda et al. 2000).

Characteristics of people who inject drugs vary markedly between the different regions of India. In the north-eastern states, they are largely home-based heroin users and less frequent injectors; in contrast, people who inject drugs in Delhi are largely street-based, inject pharmaceuticals and synthetic opioids and have a greater frequency of injecting (Sarna et al. 2012), thus highlighting the difference in context, related risks and vulnerabilities of people who inject drugs and their sexual and injecting partners.

Most information on sexual partners of men who inject drugs comes from the high HIV-prevalence north-eastern states, especially Manipur and Nagaland, and from Tamil Nadu (Panda et al. 2005; Panda et al. 2007b). There is limited information about sexual partners of people who inject drugs from Delhi or other western states of the country. In India, the majority of the people who inject drugs are male (NACO 2010) and a high proportion of them (50–70%) are married. Thus, the risk of HIV transmission to their female partners through sex, and onward to their offspring, is substantial (Solomon et al. 2010; Tortu et al. 1994). A rapid assessment of regular female partners of men who inject drugs in five countries of South Asia, including India, showed high prevalence of drug use (22%) and low condom use during the last sexual act (17%) (Kumar et al. 2008). Similar findings have been reported by Goa et al. (2006) from Vietnam.

In addition to HIV and STIs, the risk of onward transmission of hepatitis B to their sexual partners is also high. Male condoms are an effective cost-effective way to prevent STIs, including HIV. A recent study from Ukraine showed high levels of self-reported consistent condom use by HIV-positive people who inject drugs (Mazhnaya et al. 2014). In contrast, several studies from India show that despite the scale up of targeted HIV prevention interventions for most-at-risk-populations, which specifically emphasise condom use with all sexual partners, people who inject drugs do not use condoms with their regular partners (Armstrong, Humtsoe, and Kermode 2011; Armstrong et al. 2013; Sarna et al. 2012). In a recent study, Armstrong et al. (2013), reported that 42% men who injected drugs had a regular female sex partner and only 33% used condoms at last sex with these partners (Armstrong et al. 2013). It is well-documented that gender dynamics and culturally sanctioned gender roles influence sexual behaviours, especially in ongoing relationships (Gangakhedkar et al. 1997; Nagachinta et al. 1997), yet this has not been studied among partners of men who inject drugs in India. Harm reduction programmes for people who inject drugs have focused primarily on reducing drug-related risk behaviours and have paid little attention to sexual risk behaviours beyond the provision of condoms. Thus, the vulnerabilities of female partners of these men with regard to sexual and reproductive health, HIV risk and social issues are not fully understood.

To design HIV prevention programmes for sexual partners or spouses of men who inject drugs, a focused and contextualised knowledge of their vulnerabilities is needed. This qualitative study examined the determinants of sexual and reproductive health-related vulnerabilities of regular female partners of men who inject drugs. We report on risk perceptions, sexual behaviours and contextual determinants of safe sex and reproductive health needs of these women.
Methods

The Population Council, in collaboration with PATH’s ARISE – Enhancing HIV prevention for at-risk populations programme, undertook a longitudinal cohort study, in partnership with the Sahara Centre for Residential Care and Rehabilitation to examine HIV incidence among people who inject drugs receiving comprehensive HIV prevention services in Delhi (Sarna et al. 2013; Tun et al. 2013). Study methods have been reported elsewhere (Tun et al. 2013) but, briefly, participants were recruited through peer referral, targeted outreach in hotspots and as walk-ins. In-depth interviews were conducted with married or cohabiting female partners of participating men who inject drugs. The interviews, conducted from August 2012 to March 2013, set out to obtain a more comprehensive understanding of awareness of their partner’s drug use, their HIV-risk perceptions, sexual and reproductive health needs, including family planning and condom use, and gender dynamics.

Male participants who reported being married or cohabiting with a regular female partner at baseline were identified, and a list of randomly selected men (n = 100) was generated using a random number generator in STATA. The first 25 men on the list were informed about the qualitative study among female partners of men who inject drugs, and willing participants were asked to bring their spouse/female partner to participate in the interviews. They were given a period of two weeks to bring in their partners, failing which the next 25 participants on the list were contacted and so on until the list was exhausted. As a large number of men could not be reached within the two-week period, a second list of randomly selected men (n = 125) was generated to reach more participants. Female partners were interviewed in private at drop-in-centres after obtaining written informed consent.

The interview guide was developed in consultation with outreach workers, who are familiar with the social and cultural context of people who inject drugs. The guide was field tested for clarity of language, comprehension, content and cultural sensitivity, and administered in Hindi. Interviews were conducted by a trained female research interviewer conversant with qualitative data collection methods. To ensure confidentiality of the drug using behaviour of the male partner in situations where the female partner was unaware of her partner’s drug use, interviewers were directed to be more general and enquire about drug use in the community and not refer to her own partner. Each interview lasted approximately 45–60 minutes. Interviews were audio-tape recorded, transcribed and translated into English for analysis. Atlas Ti (GmbH, Berlin; Version 6.2) was used for coding and analysis of interviews. During the course of data collection, interview transcripts were reviewed and analysed to identify a saturation level beyond which further interviews did not elicit new information or new risk profiles. Two researchers read the transcripts independently for content analysis and generated descriptive categories and codes. Codes were then compared and a final code list prepared by consensus. Fourteen interviews were double coded to minimise subjectivity. Information obtained through in-depth interviews was triangulated and linked to the behavioural data of their index male partners, their HIV and hepatitis B and C status and, for some, their STI test results (a subset of randomly selected men who injected drugs in the main study were tested for STIs). Participants have been given fictitious names in this paper to ensure confidentiality.

The study was approved by the National AIDS Control Organization (NACO) Technical Review Group and Ethics Committee, Delhi, the PATH Research Ethics Committee, USA, and the Population Council Institutional Review Board, USA.
Results

A total of 3748 men who inject drugs participated in the study and 1362 reported having a regular female partner at baseline. Of those, 213 men were randomly selected to bring their regular partner for an interview. A total of 32 regular female partners of these men were finally interviewed. A breakdown of the 181 whose partners could not be interviewed is as follows: 88 men (41%) could not be reached within the two-week period, 3 men were in prison/rehabilitation and 3 were reported dead; 49 men reported that they no longer lived with their partners, 19 men said their partners were not reachable, 2 men refused for fear of disclosure of their drug-use to their families and 1 agreed but finally did not bring his spouse. In all, 15 female partners refused to be interviewed and 1 female partner was not interviewed as she was a participant in the larger longitudinal cohort study.

Characteristics of female partners and index men who injected drugs

The average age of female partners was 31.7 years (range: 19–58 years) (Table 1). All but three women lived with their husbands, two were separated because of their husband’s drug use but remained in regular contact with their husbands and considered themselves married, and one was widowed during the period between being given an appointment for the interview and the actual interview.

Three women reported living on the street with their drug-using partners. Thirteen women were originally from Delhi; more than half were illiterate and home makers. Three-quarter of the women had two or more children (median: 3; interquartile range: 1–4). Three women reported ever using drugs, of those, only one was a current user with a history of injecting drugs; two women were drug peddlers but had never used drugs themselves.

Table 1 provides selected socio-demographic information on study participants and index participants. The median age of the index men was 35 years. Of the 32 men, 5 had tested HIV-positive, 19 had active hepatitis C infection (HCV RNA-positive) and 3 had chronic hepatitis B (HBs Ag-positive). In all, 13 participants were among the randomly

| Table 1. Sociodemographic characteristics of female participants and index men who injected drugs. |
|--------------------------------------------------|--|----------------------------------|--|----------------------------------|
| **Regular female partners of men who injected drugs** | **Index men who injected drugs** |
| **Age** | **N** | **Age** | **N** |
| 18–25 | 12 | 18–25 | 4 |
| 26–35 | 12 | 26–35 | 14 |
| 36–45 | 6 | 36–45 | 6 |
| > 45 | 2 | > 45 | 8 |
| **Educational background** | | **Educational background** |
| Illiterate | 18 | Illiterate | 10 |
| Class I–XII | 11 | Class I–XII | 20 |
| Graduation and above | 1 | Graduation and above | 0 |
| Informal education | 2 | Informal education | 2 |
| **Employment** | | **Employment** |
| Housewife | 18 | Self-employed | 19 |
| Private job | 11 | Private job | 10 |
| Drug seller | 2 | Government job | 2 |
| Government job | 1 | Not working | 1 |
selected sub-set tested for STIs and, of those, 9 had Herpes Simplex Virus-2 IgG antibodies and 1 tested positive for active syphilis infection (VDRL confirmed by TPHA test).

Responses were analysed along the following themes: awareness and knowledge of HIV/AIDS, STIs and blood-borne infections like hepatitis B and C, risk-perception for contracting HIV, hepatitis and other STIs, sexual and reproductive health of women, financial consequences for women and intimate partner violence.

**Awareness about HIV, hepatitis B and C**

Most women had heard of HIV and/or AIDS (26/32) and were aware of HIV transmission through sex (23/32), but only eight women knew about the risk of mother-to-child transmission of HIV. Information about sexual transmission was conflated with the belief that HIV spreads by having unprotected sex with ‘wrong or dirty women/people’ or ‘through wrong relations’. ‘Wrong or dirty women’ in the Indian socio-cultural context refers to women who have multiple sex partners for pleasure or money – mainly sex workers. Similarly, ‘wrong relations or wrong people’ connotes sex outside marriage, as illustrated by Saroj (40-year-old government employee), who said:

> Now if he goes to another woman and she is a very dirty woman, it [HIV/AIDS] will spread by that …

The source of information about HIV for most women was peer groups, other women who themselves may have limited or inaccurate information. Only three women had attended women’s group meetings or non-governmental organizations with trained staff to provide HIV/AIDS-related information.

Only 16 of the 32 women knew about the risk of HIV transmission through sharing needles/syringes and other injection paraphernalia. While the majority knew of their husband’s past injection drug use habit, less than half (13/32) were aware that they continued to inject drugs. Several women \( (n = 11) \) believed they had stopped injecting, while some others \( (n = 6) \) believed that their husbands used only oral/inhalation drugs, as told by this respondent, whose husband had recently injected drugs:

> … No, this [drug injection] he never did, he only sniffs and takes it on foil …

Rehana (35-year-old drug seller)

Two women had no idea that their spouses had ever used any drugs. Men who injected drugs on their part misguided their spouses when confronted by them, as told by Salma (23-year-old housewife), whose husband regularly injects drugs:

> He tells me that he hasn’t taken drugs from injections. I asked him so he told me that he only took ganja and charas [marijuana].

Most women did not allow their partners to use drugs in the house fearing a bad influence on their children or because their partner’s drug use annoyed them. Data from men who inject drugs confirmed this – most of them \( (24/32) \) injected outside their homes in public spaces. Women were unaware of the fact that by pushing their partners to inject in public spaces with other people who inject drugs they possibly contributed to the risk of infection through sharing of drugs, needles or paraphernalia. A few women \( (n = 6) \) who had observed their husbands injecting with their friends had seen them sharing needles/syringes and containers but were oblivious of its consequences. Partners of home-based men who injected drugs were less informed than those who lived on the street as reflected by the following quotes from the partners of a street-based injection drug user and a home-based injection drug user respectively:
They use separate needles and syringes because he [her husband] doesn’t have any disease [HIV]. They take solution from one container but first he takes and then all others since one of the boys has the disease [HIV].

Rekha (20-year-old housewife)

He has never done anything [used drugs] in front of me; he does it behind my back … outside home. I don’t know with whom or how he started using it. No one comes home to call him; he must be going to someone’s house … but I can look at his face and know if he has used it [drugs].

Mona (24-year-old housewife)

All index men who injected drugs, except one, had undergone HIV testing in the HIV-incidence study. However, not all females (14/32) were aware of it. Lack of communication between the men who injected drugs and their partners was evident. Of those men who were HIV-positive, three had not disclosed their HIV status and two had misinformed their wives and not correctly explained its consequences or ways to prevent HIV transmission to their partner. Jyoti (25-year-old factory employee) said:

He told me that he has HIV and he is getting treatment. [he said it] means that it is only the beginning for him and there is nothing to be scared about.

Most women had never heard of hepatitis B or hepatitis C, and therefore were unaware of their own risk. Only two women had heard of hepatitis but had limited information regarding the implications for their health. Komal (33-year-old beggar) responded:

In jaundice they say liver becomes small and the food is not digested … but I don’t know how it spreads.

Awareness of hepatitis was poor, even among men who injected drugs. Only a few (7/32) had heard of hepatitis B and knew that it spreads through sharing of infected needles/syringes and through unprotected sex. Only two men were aware of hepatitis C infection transmission through sharing of infected needles/syringes.

Risk perception among women

Two-thirds of the female partners (22/32) had had sex with their male partners in the last six months. Despite being aware of the sexual route of HIV transmission, many women reported unprotected sex with their partners (18/22). Some women (n = 6) reported that there is a possibility of getting infected with HIV/AIDS or some ‘disease’ through relationship with their partners, yet continued to have unprotected sex. As Razia (35-year-old maid) explains:

I used to tell him that you may get it [HIV/AIDS] and then I might get it too …

A few others continued to have unprotected sex in an effort to become pregnant. Some of these women harboured myths as reported by Payal (19-year-old maid):

He felt that if we have a daughter then he will become all right. Yes, for this I used to stay with him [have sex]; I also believed that if a daughter is born, my husband will be saved.

Most female partners (24/32) believed that their husbands did not have any other sexual partner and if they did, it was prior to their marriage. This information was supported by similar responses from the index men who injected drugs in their behavioural survey: nearly all men (28/32) reported one regular female partner in the last 24 months. Only two men reported paid sex with a female partner. A few (5/32) reported anal sex with male partners in the distant past. Razia, wife of an HIV-positive man who injected drugs, explained:
Drug addicts are only concerned about their drugs ... they have no concern with anything [sex] except drugs.

Faiza (30-year-old housewife) emphasised:

You can say that to others, but mine is not like that ... like his friends. They [his friends] go somewhere to some other women ... I have that much faith that he does not look at other women ...

On their part, none of the female partners reported sex outside marriage. The women who had no sexual contact with their husbands (9/32) did so for reasons like marital separation, medical condition or to avoid pregnancy. Of these, only two women reported fear of contracting HIV as a reason for not having sexual relations:

We don’t sleep near [with each other] now. I fear that if I sleep close to him I will get that [HIV]. I have kept his blanket and bed sheet separately and I and my children sleep separately.

Rehana (35-year-old drug seller)

HIV testing

Although most women were aware of HIV, only 11 of the 32 had been tested for HIV. Of these, more than half (6/11) were tested during the routine antenatal care and the remaining because of their risk of contracting HIV; only one woman was encouraged by her husband to undertake an HIV test. Having correct knowledge about HIV transmission improves the uptake of HIV testing, as indicated by Geeta (58-year-old teacher), who was aware of her husband’s injecting behaviour and related risks:

After I found out that my husband has injected drugs, for the last six-seven years we didn’t have any relationship [sex] and every one-two years I get my HIV test done.

One important reason for low HIV testing among regular female partners was the belief that HIV infection cannot happen to women in monogamous relationships, as Nancy (50-year-old, housewife) explained:

He used to tell me that you are normal, you are a good woman. He did not say this [I should take a HIV test] to me because I am not of that type.

Among the partners of the five HIV-positive men who injected drugs, only two had undergone HIV testing, one during a routine pre-surgical check-up and the other during her antenatal visit.

Condom use

Only half of the female participants (16/32) knew about condoms as a contraceptive; fewer still (13/32) were aware of its use for prevention of HIV infection and only six women knew of its dual benefits. By contrast, all men who injected drugs were aware of the use of condoms for HIV prevention, but only half admitted to using them with their regular partners; none of the HIV-positive men who injected drugs reported using condoms with their partners in the past three months or at last sex. Even though some women used condoms for contraception or HIV infection prevention, they did not do so consistently, as Anita (37-year-old housewife) explained:

... I only asked to use it so I don’t get pregnant ... but we sometimes have it [sex] without condoms also.

A prevailing perception was that only women who have sex with several men use condoms. Naaz (34-year-old drug seller), wife of an HIV-positive man who injected drugs and never used condoms, said:
Women in the street talk about it. They say that wrong women who go out with others use it.

Over half of the women were using a non-condom family planning method, such as, pills, intrauterine devices and tubectomy; condoms were not used as there was no risk of pregnancy:

… what was the need to use condoms if am using a Copper-T …

Geeta (58-year-old, teacher)

Another commonly cited reason for not using condoms was to maintain the feeling of intimacy. Women placed themselves at risk in their attempts to maintain their relationships, as narrated by Faiza (30-year-old housewife):

My husband refuses to use it [condoms] … . When I told him he said that I don’t have faith in him and I don’t believe him. He further said that had he said to use a condom, I would have thought that he has some disease.

Reproductive health and sexually transmitted infections

Many women (9/32) reported problems in conceiving a child. Despite regular and frequent sexual relations, Alka (24-year-old housewife), whose husband has been using drugs for over 15 years, has not been able to conceive for the past three years:

I got myself checked; my reports are fine. The doctor then asked my husband to get a check-up which he completely refused.

A total of 11 of the 32 women reported at least one miscarriage or abortion. Reema (35-year-old housewife) reported:

With a gap of every two years, it [miscarriage] kept happening … . There was no difficulty, just mild pain and then I got my period. There was no need for cleaning [abortion] … . I used to get pregnant when he was not using [drugs]. If he would use drugs then it wouldn’t last.

Women who did not want a child and could not access contraceptives resorted to abortions when they became pregnant:

That time I had no knowledge [about family planning methods]. I didn’t want the child as I earned myself … so, I had an abortion.

Zakira (27-year-old housewife)

Women were often reluctant to access healthcare facilities for reproductive and sexual health problems because of financial constraints, lack of perceived need and embarrassment. Sometimes women preferred to seek services of traditional healers. One woman, whose husband reported STI symptoms, said:

Once I had a boil there [vaginal area] … . I had lot of trouble. Now this isn’t a thing to show or tell a doctor but then also I went to a Bengali doctor [local name for quack]. I also have a problem of abnormal discharge; I take medicines from him and get relief but later I have the same problem again.

(Faiza)

For abortions too, women tended to consult non-allopathic traditional healthcare providers:

I had herbs for abortion. I don’t know how they put the herbs in the place you urinate from, after that they let it mix and then abort it. She wasn’t a doctor … just like that … she must be a midwife only.

Zakira (27-year-old housewife)
Most women did not understand the term sexually transmitted infections, or *gupt rog* in local parlance, but responded when asked about symptoms such as abnormal vaginal discharge, genital ulcers, pain during intercourse or burning urination. Several women (11/32) complained of abnormal vaginal discharge, a few (5/32) reported having dysuria and two reported genital ulcers:

> Lots of blisters were there [vaginal area]. They were so infected that walking, sitting, using the bathroom had become difficult. For many days I put a tablet inside but got no relief. Then I consulted a doctor. I did not show it to him, just told him verbally.

Chanda (28-year-old housewife)

Another participant, who suspected that she had been infected by her husband, said:

> One year back he had it [an infection] two-three times. We made relations [sex] ... and after 15 days I had itching. I was angry with him and said you have done this. I was scared and stayed far from him.

Anita (37-year-old housewife)

**Economic vulnerabilities**

Women reported difficulty in meeting their expenses related to nutrition, education and other basic necessities for themselves and their children. Less than half of the participants (14/32) were engaged in paid work and two were drug sellers. Although, many women received financial help from their extended families, the assistance was often not sufficient to meet their needs. Men who injected drugs often sold off household assets and forcefully took away the proceeds to support their drug use, as narrated by Geeta (58-year-old teacher):

> He sold off our six shops and the ground floor of our house; now we only have a 50-yards house in which we live.

Almost half of the women reported incurring huge expenses in seeking treatment for their partners at privately funded rehabilitation centres. Saroj (40-year-old government employee) recounts:

> It costs a lot of money; previously they charged two thousand rupees now they take five thousand. Now should I pay five thousand rupees or look after my children? I am not sending him there [to the rehabilitation centre] anymore.

**Intimate partner violence**

Nearly half of the women (14/32) reported intimate partner violence at the hand of their male partners. Violence was mostly related to confrontation about drug use or financial resources. Domestic violence reported by participants ranged from frequent verbal altercations, physical violence in the form of ‘one odd slap’, being ‘hit just once-twice’, to more serious cases of abuse, which resulted in miscarriage in one woman. Three women reported physical abuse while they were pregnant:

> He hit me in the stomach when I was 5 months pregnant ... I was beaten black and blue, my teeth were broken, hands and legs were also broken ... he pushed me and I fell down ... after a while my period started and it went on the whole night

Meenu (45-year-old housewife)

**Discussion**

To the best of our knowledge, this is the first paper to explore the contextual determinants of sexual and reproductive health-related vulnerabilities of regular female partners of men
who inject drugs in India. High HIV prevalence among people who inject drugs in Delhi (Sarna et al. 2013) associated with low condom use with their regular partners sets the stage for the transmission of HIV infection to their partners. Panda et al. (2005) reported a 16% HIV prevalence among regular female partners of HIV-positive men who injected drugs in a community-based study in Chennai (Panda et al. 2005) and 45% in another study in Manipur (Panda et al. 2000). Coexisting infections such as hepatitis B and STIs among men who inject drugs further add to the vulnerability of female partners. People who inject drugs routinely receive HIV prevention messages under NACO’s Targeted Interventions programme and are aware of the risk of infecting their sexual partners and ways to prevent this. While the behavioural survey with men who injected drugs documents their self-reported risky injecting behaviour, interviews with their regular female partners reflect that they withhold information about their drug use, do not disclose their HIV status to their partners and do not use condoms.

The theory of reasoned action (Fishbein and Azjen 1975) argues that individuals consider the consequences of their sexual behaviours before undertaking them. In the case of men who inject drugs, reasoned action may not be possible as they may be unable to execute protective behaviours due to their altered mental state under the influence of drugs. While most female partners of men who inject drugs knew their partners had used drugs, many remained unaware of their current drug use. Their knowledge about HIV and hepatitis infections was also limited. The Health Belief Model, one of the widely used cognitive theories to explain health seeking behaviours, suggests that perceived risk prompts people to adopt healthy behaviours (Rosenstock et al. 1958). Interviews with female partners show that these women lack a correct and comprehensive understanding of the risks associated with injecting drug use by their partners and its direct impact on their health. For these women to adopt healthy behaviours, it is essential for them to realise the extent and seriousness of the risks associated with sexually engaging with their injecting partners.

Reproductive tract infections, suggested by abnormal vaginal discharge, genital lesions and dysuria, were commonly reported by study participants. Some studies suggest that this could be attributed to socio-demographic factors such as high parity, poor socioeconomic conditions, poor menstrual hygiene and illiteracy (Balamurugan and Bendigeri 2012). Patel, Pednekar, and Weiss (2005) also report an association between stress and vaginal discharge, a psychosomatic expression of stress (Patel, Andrew, and Pelto 2008; Patel, Pednekar, and Weiss 2005). Eleven female partners interviewed had experienced at least one abortion/miscarriage and use of family planning methods was inconsistent and infrequent. Although the reproductive health problems reported in this study could be similar to the general population, the fact that women have male partners who engage in unsafe injection practices and do not use condoms with sex partners places them at greater risk of HIV, hepatitis and STIs. Our study shows that these women are hesitant to seek healthcare services and when they do, they often access unqualified, non-formal health providers. HIV prevention and targeted intervention programmes should make urgent efforts to reach female partners of men who inject drugs with prevention and care services.

We report high levels of intimate partner violence experienced by female partners of men who inject drugs. Other studies have reported similarly high rates of physical (56%) and sexual (68%) violence experienced by female partners of men who inject drugs in Chennai (Solomon et al. 2011) and in North India (Subodh et al. 2014). Intimate partner violence can lead to poor reproductive health outcomes among women (Chamberlain and Levenson 2012; Moore, Frohwirth, and Miller 2010) as they are more likely to agree to
and engage in unprotected sex, putting themselves at greater risk for STIs, including HIV (Coker and Amy 2007). Further, adverse economic conditions, exacerbated by drug using partners, limit their access to good nutrition and quality healthcare.

Men who inject drugs act as gatekeepers for their partners and hence reaching these women poses a challenge. Some studies in India have used outreach methods to recruit the female partners of men who inject drugs for research and HIV prevention interventions (Panda et al. 2007a; Vijayalakshmi et al. 2004), however the involvement of these men to gain access to their partners is not clear. Non-governmental organizations working with people who inject drugs may consider using community health workers to implement targeted information, education and communication messages through community events to reach these women directly. Mass media messaging through radio and television could also be used to reach this population. Key messages should include information about the risks associated with their partner’s injecting behaviours that go beyond HIV to include hepatitis B and C infection.

Involving families and female partners is particularly important to prevent women from unknowingly increasing their partner’s exposure to infection by pushing them out of the house to inject in public places where the risk of sharing needles, drugs and injection paraphernalia is much higher. Further, given the broader social context where condoms are promoted as a family planning method with very low rates of use (NFHS 2005–06), there is a need for clear messaging to promote condom use for the prevention of HIV, hepatitis B and other STIs, to dispel the common belief that condoms should only be used with or by sex workers and to promote dual protection, that is, the use of condoms with non-condom family planning methods, for example, intrauterine devices or permanent methods. The Health Belief Model suggests that there is an increased chance of adopting new behaviours if people understand the benefits. Once female partners of men who inject drugs have been reached, peer support group meetings could be used to educate them and build their skills to negotiate consistent condom use. Goa et al. (2006) have successfully used couple-based intervention to facilitate risk-reduction communication among people who inject drugs and their partners in Vietnam (Goa et al. 2006).

Several studies have documented the association between drug abuse among women and poor reproductive outcomes like spontaneous abortion, restricted foetal growth, incorrect maternal placentation, compromised foetal wellbeing and pre-term delivery (Gyarmathy et al. 2009). However, only a few studies have explored the effect of male drug use on the fertility and reproductive health of their female partners. A study in Iran with opiate users reported a significant association and dose response between opiate consumption and impaired sperm parameters and sperm chromatin damage (Safarinejada et al. 2013). Other studies report that abnormal or poor quality sperm can result in infertility or unstable pregnancies resulting in abortions (Cicero et al. 1975; Gil-Villa et al. 2010). It is possible that delayed conception and repeated miscarriages reported by our study participants may be related to their partners’ drug use. More research is needed to explore the association of drug use among males on the fertility of their female sexual partners.

The study is not without its limitations. We could only reach female partners of those men who inject drugs who agreed to bring them in. It is likely that men who had not disclosed their drug use or HIV status to their female partners and families deliberately did not bring in their partners for the interview and we had no other way of reaching these women. We cannot report on the HIV status of our female participants as even though we provided a referral for HIV testing to all of them, almost all refused to be tested. Lastly, this is a qualitative study with a small sample size, designed only to gather focused,
in-depth, contextual knowledge of the determinants of safe-sex and reproductive health needs of regular female partners of men who inject drugs and these findings cannot be generalised.

**Conclusion**

Study findings highlight the vulnerability of female partners of men who inject drugs to HIV, STIs, blood-borne infections like hepatitis and reproductive health morbidity. It is critical to empower women by increasing awareness about HIV, STIs and hepatitis, strengthen their self-risk assessment skills and build their capacity to negotiate condom use. HIV prevention programmes for men who inject drugs should reach out to their female partners to address the special needs of these women and facilitate access to appropriate healthcare services for reproductive and sexual health problems.

**Funding**

Support for this project was provided by ARISE – *Enhancing HIV prevention for at-risk populations*, through financial support provided by the Canadian Government through Foreign Affairs Trade and Development Canada, and via financial and technical support provided by PATH (CID.1450-02135-SUB). The ARISE project implements innovative HIV prevention initiatives for vulnerable communities, with a focus on determining cost-effectiveness through rigorous evaluations. The authors also acknowledge the contribution of the Victorian Operational Infrastructure Support programme received by the Burnet Institute to this work.

**References**


RÉSUMÉ
Chez les personnes qui utilisent des drogues injectables, le partage d’aiguilles et de seringues et les rapports sexuels non protégés sont des pratiques courantes. Ainsi, leurs partenaires sexuel(le)s sont exposé(e)s aux infections sexuellement transmissibles (IST), parmi lesquelles le VIH et d’autres maladies transportées par le sang, comme les hépatites. Nous avons conduit une étude cas-témoins nichée dans une étude longitudinale sur l’incidence du VIH à Delhi, à laquelle participaient des usagers de drogues injectables. Cette étude cas-témoins a recruté les partenaires féminines de 32 participants, avec lesquelles ont été conduits des entretiens en profondeur. Elle avait pour objectif d’approfondir et de contextualiser les connaissances sur les déterminants du sexe à moindre risque et sur les besoins en matière de santé reproductive chez ces femmes. L’information obtenue au cours des entretiens a été triangulée et mise en rapport avec les données comportementales initiales de leurs partenaires (les hommes qui consommaient des drogues injectables). Les résultats démontrent que les femmes engagées dans une relation monogame ont une faible perception du risque lié aux IST et au VIH. Ils révèlent aussi un manque de connaissances préoccupant sur les hépatites B et C. Enfin ils laissent entrevoir un possible impact de l’usage de drogues par les hommes sur la fertilité de leurs partenaires féminines. Il est urgent de renforcer la capacité des partenaires féminines régulières des usagers de drogues injectables à évaluer leurs propres risques et à négocier l’utilisation du préservatif. Il est également nécessaire que de futurs travaux de recherche portent sur l’usage de drogues injectables en tant que facteur prédictif des problèmes de fertilité et de la morbidité rencontrés parmi les partenaires féminines des usagers de drogues.
Resumen

Comúnmente, quienes se inyectan drogas intercambian agujas y jeringas, y tienen relaciones sexuales sin protección. Ello implica que sus parejas sexuales se encuentren en riesgo de contraer infecciones transmitidas sexualmente (its), como el vih y la hepatitis, entre otras infecciones que se contagian a través de la sangre. Los autores realizaron el presente estudio anidado entre parejas mujeres estables de hombres que se inyectan drogas, los que, a su vez, participaban simultáneamente en un estudio longitudinal de incidencia del vih en Delhi, India. Se realizaron entrevistas a profundidad a las parejas mujeres de 32 hombres, con el objetivo de recabar información que diera cuenta de sus conocimientos específicos y contextuales en torno a los determinantes del sexo seguro y a sus necesidades respecto a la salud reproductiva. La información obtenida a través de las entrevistas fue triangulada y vinculada con los datos de línea de base sobre el comportamiento de sus parejas (hombres “índice” que se inyectan drogas). Los resultados del estudio revelan que aquellas mujeres que participan en relaciones monógamas tienen bajo nivel de conocimientos sobre las its y sobre los riesgos asociados al vih. Asimismo, su falta de información acerca de la hepatitis B y C constituye un motivo de preocupación. Los hallazgos obtenidos sugieren que la fertilidad de la pareja mujer se ve alterada por el uso de drogas por parte de los hombres. Por lo que resulta urgente que las parejas mujeres estables puedan fortalecer sus habilidades de autodiagnóstico, reforzando la confianza en sí mismas para impulsar el uso del condón. Las investigaciones a futuro deberán examinar el impacto que el abuso de drogas por parte de hombres que se las inyectan tiene sobre sus parejas mujeres, a fin de pronosticar la fertilidad y la morbidez de las mismas.