

HIV Transmission in Intimate Partner Relationships in India



 **Population Council**



UNAIDS
JOINT UNITED NATIONS PROGRAMME ON HIV/AIDS

UNHCR
UNICEF
WFP
UNDP
UNFPA

UNODC
ILO
UNESCO
WHO
WORLD BANK

English Original - November 2009

Copyright ©UNAIDS, 2009

All rights reserved. Publications produced by UNAIDS India can be obtained from Resource Centre, UNAIDS, New Delhi. Requests for permission to reproduce or translate UNAIDS publications- whether for sale or non-commercial distribution- should be addressed to the Resource Centre at the address below or e-mailed to India@unaids.org or faxed to +91-11-4135-4534.

The designations employed and the presentation of the materials in this publication do not imply the expression of any opinion whatsoever on the part of UNAIDS concerning the legal status of any country, territory, city or area or of its authorities or concerning the delimitation of its frontiers or boundaries.

The mention of specific companies or of certain manufactures' products does not imply that they are endorsed or recommended by UNAIDS in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

UNAIDS does not warrant that the information contained in this publication is complete and correct and shall not be liable for any damages incurred as a result of its use.

UNAIDS India

A-2/35 Safdarjung Enclave

New Delhi

India- 110029

Tel +91-11-41354545

Fax +91-11-41354534

E-mail: India@unaids.org

Web: www.unaids.org.in

HIV Transmission in Intimate Partner Relationships in India

Niranjan Saggurti

Project Director, Population Council, New Delhi, India

Alankar Malviya

National Programme Officer (State Support), UNAIDS, India



UNAIDS
JOINT UNITED NATIONS PROGRAMME ON HIV/AIDS

UNHCR
UNICEF
WFP
UNDP
UNFPA
UNODC
ILO
UNESCO
WHO
WORLD BANK

Published by



© UNAIDS 2009

UNAIDS is the exclusive holder of the copyright to all the content of this publication. No part of this publication can be reproduced in any form whatsoever without the explicit permission of UNAIDS.

Designed and printed at

Viba Press Pvt. Ltd.

C-66/3 Okhla Industrial Area, Phase II
New Delhi 110 020. Ph.: +91 11 41611300

C O N T E N T S

FOREWORD	5
ACKNOWLEDGEMENTS	6
STATISTICS AT A GLANCE	7
EXECUTIVE SUMMARY	8
1. INTRODUCTION	11
2. METHODOLOGY	13
3. RESULTS	17
4. INDIA'S NATIONAL RESPONSE FOR THE PREVENTION OF HIV INFECTION IN INTIMATE PARTNER RELATIONSHIPS	37
5. CONCLUSION	40
REFERENCES	44
APPENDIX I : LIST OF EXPERTS	53
APPENDIX II: FINDINGS FROM DISCUSSION WITH HIV-POSITIVE NETWORK GROUPS	54



ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
ANM	Auxiliary Nurse Midwife
AOR	Adjusted Odds Ratio
ART	Anti-Retroviral Treatment
ASSOCHAM	Associated Chambers of Commerce and Industry of India.
AYUSH	Ayurveda, Yoga, Unani, Siddha and Homeopathy
BSS	Behavioural Surveillance Survey
CDC	Center for Disease Control
CII	Confederation of Indian Industries
EMS	Extra-Marital Sex
FICCI	Federation of Indian Chamber of Commerce and Industry
FSW	Female Sex Worker
GIPA	Greater Involvement of People in AIDS
HIV	Human Immunodeficiency Virus
IBBA	Integrated Behavioural and Biological Assessment
ICTC	Integrated Counselling and Testing Centre
IDU	Intravenous Drug Use
INP+	Indian Network of Positive People
IPV	Intimate Partner Violence
MDG	Millennium Development Goals
MSM	Men having Sex with Men
MWCD	Ministry of Women and Child Development
NACO	National AIDS Control Organisation
NACP	National AIDS Control Programme
NFHS	National Family Health Survey
NHAI	National Highways Authority of India
PHC	Primary Health Care
PLHIV	People Living with HIV
PPTCT	Prevention of Parent To Child Transmission
PWN+	Positive Women's Network
RCH	Reproductive and Child Health
RTI	Reproductive Tract Infections
SACS	State AIDS Control Society
STI	Sexually Transmitted Infection
STD	Sexually Transmitted Disease
TI	Targetted Interventions
TISS	Tata Institute of Social Sciences
UNDP	United Nations Development Programme
UNAIDS	The Joint United Nations Programme on HIV/AIDS
UNIFEM	The United Nations Development Fund for Women
VAW	Violence Against Women
VCTC	Voluntary Counselling and Testing Centre
WHO	World Health Organization



FOREWORD

The HIV epidemic is still evolving across the globe. Recent epidemiological trends of HIV transmission in many Asian countries including India indicate it is “feminising”, with more women getting infected and further spread of the epidemic from cities to the rural areas. Many men in At-Risk-Populations - Men who have Sex with Men (MSM) and Injecting Drug Users (IDUs) - have regular and intimate female sexual partners and/or spouses. In addition, a good number of men especially those who migrate from rural areas to urban areas buy sex or indulge in unsafe sexual behaviour, and then return home to their regular spouse/partner.

This review is a novel attempt in India to examine closely the dynamics of HIV transmission in intimate partner relationships. It examines the various factors leading to it. Based on the findings, the review throws light on the gaps in current prevention programmes and suggests ways to fill these gaps. There are a few examples on how to prevent HIV transmission from MSM populations to their intimate sexual partners. However, these interventions are not widespread and embedded in the national response to HIV. Hence, the report calls for evidence-informed modifications in the programmes to address these gaps and scale-up community-based programmes to rural areas. It also points to the need for more focussed research.

The UNAIDS Country Office fully expects more programmatic action and research stemming from the current work. We hope this review will encourage programme implementers in factoring the important element of intimate partner transmission in all their prevention-related activities.

Prof. Charles Gilks

UNAIDS Country Coordinator
India



ACKNOWLEDGEMENTS

Desk review on HIV transmission in intimate partner relationships in India was undertaken during 2008-09; and was possible through the support of a number of professionals. Their efforts are acknowledged at the fore.

To Mr. Prasada Rao, UNAIDS Regional Support Team Asia Pacific (UNAIDS RSTAP) Director; and Dr. Jane Wilson, UNAIDS RSTAP Regional Advisor for Gender, GIPA and Human Rights; we are grateful for your continued support and guidance through every stage of the work. To Professor Charles Gilks, UNAIDS India Country Coordinator, we thank you for your timely expert comments. To Dr. Saroj Pachauri, Population Council Asia Regional Director; we appreciate your advice and counsel in executing this project.

We appreciate the support received from members of the Technical Advisory Committee— Mayank Agarwal, NACO; Dr. Sunitha Dhar, JAGORI; Dr. Shalini Bharat, TISS; Alka Narang, UNDP; Vandana Mahajan, UNIFEM; Asa Andersson, UNAIDS, and Dr. Shireen Jejeebhoy, Population Council—for their critical review and feedback on the earlier drafts of the report.

We would like to acknowledge the significant contribution of Sunanda Rabindranathan for conducting web research and putting together a literature inventory. Many thanks to V. L. Thomas, Population Council Executive Assistant; for providing excellent administrative support throughout the project. Our thanks also to Nalini Chandra and Nalin Mehta from UNAIDS for their editorial and logistic support.

Finally, we are immensely grateful to the representatives of Positive Women's Network (PWN+) and the Indian Network of Positive People (INP+) for actively participating in a series of workshops; and providing significant insights and programmatic inputs to the project.

Niranjan Saggurti

Project Director
Population Council
New Delhi, India

Alankar Malviya

National Programme Officer
(State Support)
UNAIDS, India



STATISTICS AT A GLANCE

Indicator	Percentage	
1	Married couples who are HIV-sero-positive	0.49 ^a
2	Sero-discordant couples who are HIV-positive	78 ^a
3	HIV-positive men with HIV-negative wives	75 ^a
4	HIV-positive women with HIV-negative husbands	39 ^a
5	Sero-discordant couples using condoms	5 ^a
6	Women who experienced physical violence from their husbands in the last one year	34 ^a
7	Married men who drink alcohol	31.9 ^a
8	Married women reporting sexually transmitted infections	1.5 ^a
9	Women married before the age 18 years	58 ^a
10	Married women who experienced both sexual and physical violence	8.3 ^a
11	HIV-positive men who disclosed their HIV status to their wives	65 ^b
12	HIV-positive women who disclosed the HIV status to their husbands	100 ^b
13	Sero-discordant couples who know their HIV-positive status and use condoms	6.6 ^c
14	Married men engage in extramarital sex	12.5-16.5 ^d
15	Married women who perceive that their husbands have engaged in extramarital sex	6.3 ^e
16	HIV prevalence among:	
	Married men	0.45 ^a
	Married women	0.19 ^a
	Clients of sex workers	2-10.9 ^f
	Female sex workers	2.2-38.7 ^g
	Injecting drug users	1.1-32.2 ^h
	Men having sex with men	4.8-24.7 ⁱ
17	Correct knowledge about the sexual transmission of HIV	
	Clients of sex workers	37.9 ^k
	Married women	15.4 ^a
	Married men	29.6 ^a
	Female sex workers	37.9 ^k

- a. International Institute for Population Sciences (IIPS) and Macro International., (2007)
- b. Taraphdar et. al.(2007).
- c. Sharma and Marfatia (2005)
- d. Schensul et. al.(2006); Saggurti et. al.(2008)
- e. Schensul et. al.(2006)
- f. National Interim Summary Report – India (2007) for the states of Andhra Pradesh, Maharashtra and Tamil Nadu. Pp.127
- g. National Interim Summary Report – India (2007) for the states of Andhra Pradesh, Maharashtra, Karnataka, Nagaland and Tamil Nadu. Pp.98-99.
- h. National Interim Summary Report – India (2007) for the states of Nagaland and Manipur. Pp.119
- i. National Interim Summary Report – India (2007) for the states of Andhra Pradesh, Maharashtra, Karnataka and Tamil Nadu. Pp.107.
- k. NACO (2006b) National Behavioural Surveillance Survey, 2006 All India data. Pp.33 and pp.84



EXECUTIVE SUMMARY

In India, an increased number of HIV infections are emerging amongst intimate sexual partners. Evidence of the fact is that by 2008, women accounted for 38 percent of the total HIV-infected population which is a 17 percent increase from 2001. Significantly, over 90 percent of these women acquired HIV from their husbands or their intimate sexual partners. Women are at increased risk for HIV not only on account of their own sexual behaviour but if they are partners of men belonging to most at risk population groups, that is; clients of sex workers, men who have sex with men (MSM) and injecting drug users (IDUs).

Given this increased HIV proliferation amongst women through marriage or intimate partner relationships and the limited holistic understanding of this; a desk review of available literature was executed.

By reviewing available data and literature on HIV transmission in intimate partner relationships; understanding the current national response for addressing this emerging epidemic trend; the endeavour was identifying potential programmatic entry-points for preventing HIV transmission in intimate partner relationships.

The methodology for this study included firstly, conducting comprehensive electronic search of academic journal websites; websites of international agencies and standard internet search engines on studies of intimate partner transmission of HIV in India. Secondly, obtaining information from positive people's network representatives. For this, two consultative meetings were held with Positive Women's Network (PWN+) and Indian Network of Positive People (INP+). Thirdly, expert guidance from an advisory committee—which comprised of experts from UN organisations, academicians and programme managers from government and non-governmental organizations—on the frame-work for review.

Certain important findings have emerged through desk review. According to the National Family Health Survey (NFHS-3) data, in one out of every 200 married couples in India, at least one or both partners are HIV positive. In four out of every thousand married couples only one of the partners is infected. By extrapolating proportions from survey data to the total number of married couples from the Census 2001 data in the same age-group (~236 million married couples in the reproductive age-group, according to 2001 Census), a conservative estimate of 1.18 million married couples affected by HIV is obtained. Women are HIV-negative in approximately 0.76 million couples and the men are HIV negative in approximately 0.16 million couples. These data indicate that there is a large cohort of sero-discordant married couples where, in some cases, men, and in others, women, are HIV-positive. Data also shows that sero-discordance does not differ significantly by the urban/rural residence (Saggurti et. al., 2009). Only 6 percent of the total sero-discordant couples are currently using condoms. The most common reason for poor condom use—even after one partner has tested HIV positive—is over issues of mistrust and lack of confidence.



It is documented that women are at a greater risk for HIV due to biological factors, socio-cultural norms and behavioural reasons. In marriage or intimate sexual relations, socio-cultural factors such as gender inequities, cultural norms and limited economic and social autonomy particularly makes them all the more susceptible. There resultantly is a lack of control over sexual decision making which is exacerbated by physical and sexual violence. There is growing evidence of a direct correlation between high HIV prevalence and intimate partner violence. Research finds that elevated rates of sexual risk behaviours among men are linked with intimate partner violence (example: extramarital sex, multiple sex partners, non-use or inconsistent condom use, and forced unprotected sex).

For many women sexual intercourse is not a question of choice but rather a question of survival. A woman's economic vulnerability leaves her prone to HIV if her husband is infected. On the other hand, there is evidence to show that economic security such as women's property ownership increases her ability to exercise control over sexual negotiation and sexual behaviour change. It helps widows of HIV-positive men to keep their children in school longer as otherwise it is difficult for widowed households to continue the education of their children. According to a study in Kerala, women who owned property were less likely to face violence in their homes.

In nearly one-fifth of the discordant couples, the women are HIV positive. This finding contradicts the long-standing assumption that the primary direction of HIV transmission is from male to female, that is, first it is the man who acquires HIV and transmits the infection to his wife/intimate sexual partner(s). The specific circumstances which expose women to HIV—particularly in female sero-discordant couples—needs further investigation. Women could be infected by infected syringes and through blood transfusion. Little, however, is known on the circumstances under which women form relationships with men other than their husbands; and the manner by which these relationships increase their risk for HIV. Research thus is needed for understanding the complex social and sexual lives of women who live in urban areas; and of those who are left behind in villages with husbands migrating on account of work. Research is needed to understand the extent to which HIV is transmitted through male migrants to their wives or sexual partners. There is also need to understand the decision-making process around HIV disclosure, barriers to partner notification, and enabling factors for voluntary HIV testing. By understanding these dynamics, new approaches can be designed for preventing HIV amongst women and men.

Expanded interventions are required for preventing HIV transmission from most at risk populations to their intimate sexual partners. Till date, HIV prevention interventions—including those for most at risk population groups who have steady sexual partners—is focused on condom use promotion. Specific interventions need to be designed for preventing sero-discordant couples to become sero-concordant. Though the NACP-3 guidelines for targeted interventions emphasise the need for targeting regular sexual partners of most at risk populations; evidence on best



practices is scarce. Greater operations research is required to provide the evidence on which basis appropriate interventions for HIV prevention in intimate partner relationships can be designed.

For preventing HIV transmission in intimate partner relationships, inclusion of the following strategies in the short and long term to the national programme agenda is consequently recommended:

- Strengthen linkages between and integrate services of the National AIDS Control Programme (NACO) and the Reproductive and Child Health Programme (RCH).
- Provide services for intimate sexual partners at HIV testing and care facilities.
- Identify, adapt and upscale interventions for preventing HIV transmission in regular sexual partners of MSM, IDU and clients of sex workers.
- Mainstream gender and HIV concerns across various different government ministries (Ministries of Education, Home Affairs, AYUSH, Women and Child Development).

HIV transmission through intimate partner relationships can be prevented through a multi-sectoral and multi-level engagement by government, civil society organisations and international agencies in India.



1. INTRODUCTION

By the end of 2006, the number of HIV-infected people in India ranged between 2.0 and 3.1 million (UNAIDS, 2008). More than 90 percent of these infections were acquired through one of the following three horizontal routes: heterosexual contact, homosexual contact and intravenous drug use. The National AIDS Control Organisation (NACO) suggests that the HIV epidemic in India is concentrated in population groups engaged in higher-risk behaviours that include men having sex with men (MSM), injecting drug users (IDUs) and female sex workers (FSWs) with the estimated prevalence of 7.4, 7.2 and 5.1 percent, respectively (NACO, 2007). Over the past decade in Sub-Saharan Africa there is a noted shift with HIV-positive women now out numbering men (1.3 to 1) (UNAIDS, 2004a). Such a pattern is starting to emerge in India as well. After the epidemic accelerated in India in the early 1990s, estimates for 1994 showed a male to female ratio of 5:1, with female cases reported mostly amongst sex workers (Pais, 1996). By the end of the decade, the gender ratio had declined (3:1). Currently it is estimated that the male to female ratio is 1.7:1 (UNAIDS, 2004b) and 1.2:1 (Hawkes & Santhya, 2002). Infection rates are increasing more rapidly among women (Gangakhedkar et. al. 1997; Mehendale et. al. 2007; NACO, 2004; Bhattacharya, 2004) and they now represent an estimated 38 percent of all infected people living with HIV. Much of this rapid increase in prevalence among women is a result of male to female HIV transmission within marriage and or within intimate partner relationships (Gangakhedkar et. al., 1997; Maniar, 2000; UNAIDS, 2005).

The vulnerability of women within marriage in India is attributed to their low status, gender inequities and cultural norms that inform the construction of masculinity and which limit women's control over decisions related to sexuality both for her husband and herself (Maman et. al., 2002; Mason & Smith, 2003). There is also an argument that women's lack of control is fuelled by intimate partner violence that involves sexual coercion and increased HIV risk. The literature suggests that domestic violence is more common in relationships where men and women have extramarital sex and/or STI-like symptoms (Verma & Collumbien, 2003). Promotion of safer sex and condom use in marriage requires the cooperation and involvement of both husband and the wife (Bhattacharya, 2004).

Increased HIV infection among women within marriage or in intimate partner relationships over the past decade; coupled with limited understanding on factors responsible for this provided impetus for review. The overall goal of desk review is identifying data gaps on HIV transmission in intimate partner relationships—within existing literature—and suggesting potential programmatic entry-points for reducing HIV proliferation among women. The specific aims thus are: 1) Reviewing available data and literature related to HIV transmission in intimate partner relationships and identifying data gaps. 2) Reviewing the national response for reducing HIV transmission in intimate partner relationships. 3) Identifying potential



programmatic entry-points for preventing HIV transmission in intimate partner relationships.

This report is organised in five chapters. Whilst in this first chapter the rationale and objectives for the study is discussed; chapter 2 focuses on the methodology for desk research. Chapter 3 highlights first, the key findings emerging from the literature review; second, analyses HIV data from National Family Health Survey (NFHS-3); and third, informs the reader on the conceptual model emerging though the study. In the fourth chapter, the policies of the National AIDS Control Programme that are relevant to the prevention of intimate partner transmission of HIV are discussed. Chapter 5 summarises the findings, identifies data gaps, provides policy and programmatic recommendations and identifies potential entry-points within the National AIDS Control Programme for addressing intimate partner relationship issues.



2 . M E T H O D O L O G Y

A comprehensive electronic literature search of the following sources was conducted for identifying studies on HIV and women in India: PubMed, JStor, various academic journal websites, websites of the multilateral agencies (such as the UN agencies) and standard internet research article search engines including 'Google Scholar.' The following criteria were used to search for papers/reports published from India: "Husband-wife transmission and HIV," "Spousal transmission and HIV," "HIV, transmission and marriage" etc. The reference lists of all identified research papers and reports were examined to locate other relevant studies that were not captured by the initial electronic search. Abstracts published by international and Indian HIV and AIDS conferences were reviewed for identifying unpublished studies. This methodology and the identified list of studies were discussed with a panel of experts from India which included researchers, epidemiologists, clinicians and social organizations. This was in order to first, identify other studies/research that had focused HIV transmission through intimate partner relationships—and which had yet not been identified. Second, finalise the criteria of studies to be reviewed in the report.

2.1 Review Eligibility

For minimising bias while selecting studies for review, an inclusion and exclusion criterion was defined in advance. Only those that explicitly discussed sexual behaviours and/or STIs/HIV amongst study participants and their partners were included. Unpublished studies and reports that discussed only the socio-cultural, psychological, anthropological and legal issues that were not pertinent to the issue of HIV transmission in intimate partner relationships were excluded. Certain unpublished studies are not included to the report due to lack of clarity over their respective scientific design and its associated limitations. They were nonetheless, reviewed. And the information they provided were utilized for contextualising the problem.

2.2 Framework for guiding the review

The framework that guided desk review was developed subsequent to the initial phase of literature review and consultations with the advisory committee. The framework includes two major categories: 1) Male to female transmission; and 2) Female to male transmission of HIV infection.

2.3 Analysis of HIV data from the National Family Health Survey (NFHS-3)

The National Family Health Survey-3 (NFHS-3), a nationwide survey on demographic and health issues including HIV, was conducted across all Indian states that existed during 2005-06. Data from the survey were analysed to assess HIV sero-prevalence



Figure 1: Factors assumed to be associated with male to female transmission of HIV infection among different population sub-groups:

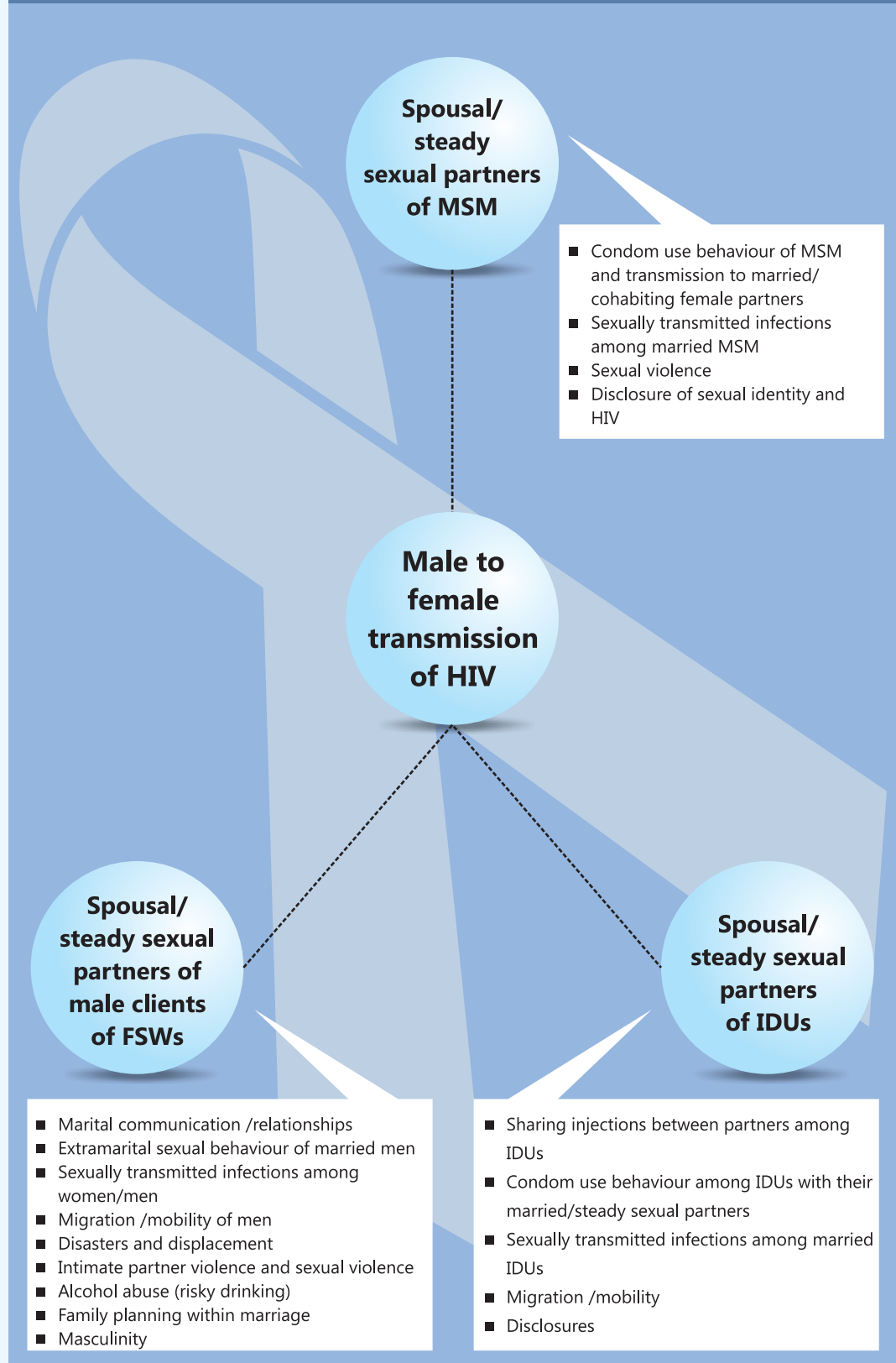
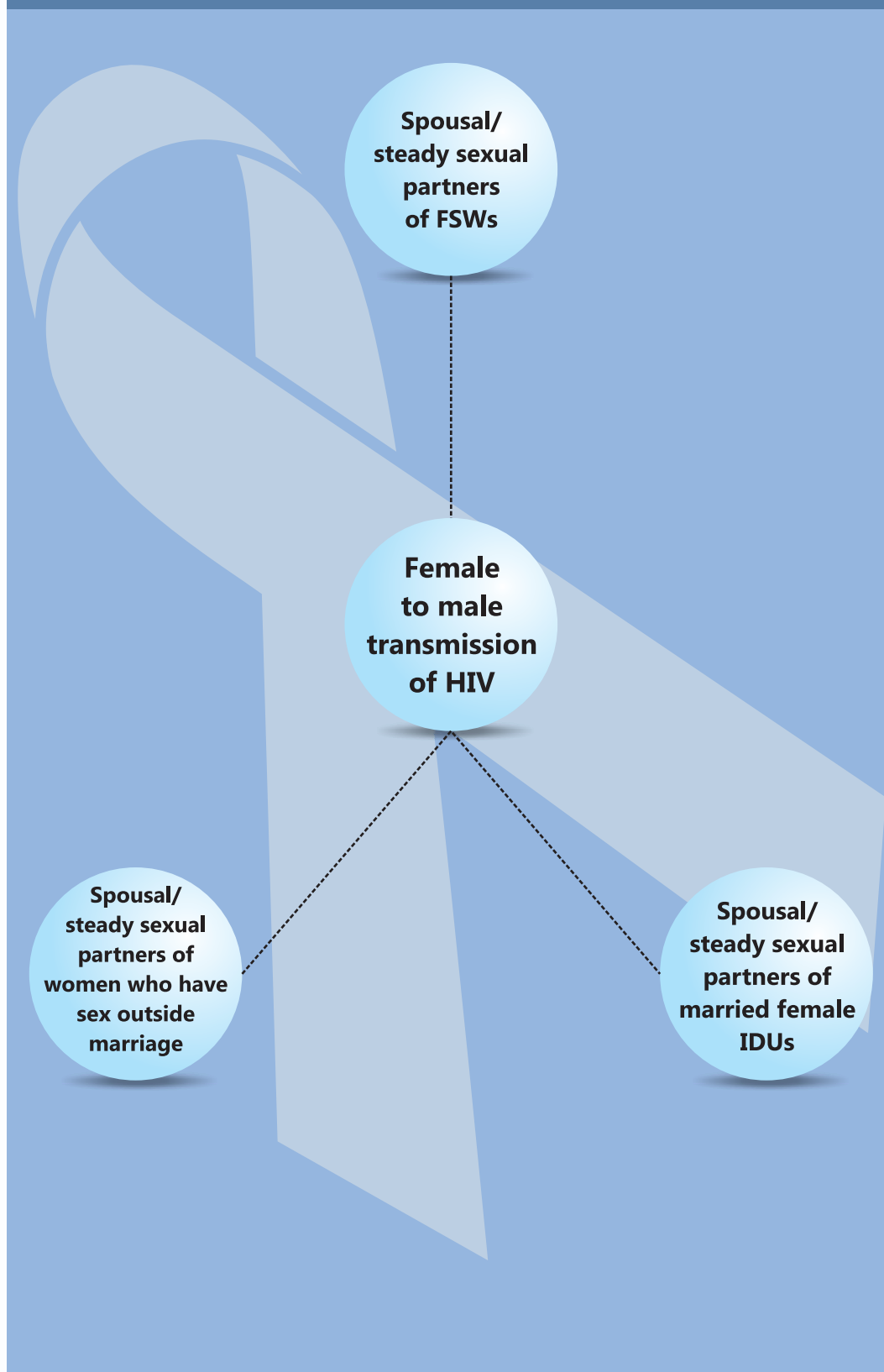




Figure 2: Factors assumed to be associated with female to male transmission of HIV infection among different population sub-groups





among men and women in the general population. The nationally representative sample included 124,385 women in the age range of 15-49 years and 74,369 men in the age range of 15-54 years. Analyses for this report are limited to men and women for whom HIV test results were available. Data on a sub-sample of 27,771 married couples were analysed to understand HIV transmission dynamics in intimate partner relationships.

2.4 Review of National AIDS Control Programme

A comprehensive review of the National AIDS Control Programme-Phase 3 (NACP-3) document was carried out to understand whether or not the programme seeks to address HIV transmission in intimate partner relationships and the approaches it suggests for policy implementation.

2.5 Consultation with HIV-positive networks

Two consultative meetings with HIV-positive people were organised for obtaining feedback on HIV transmission in intimate partner relationships; the existing policy and programmes on HIV prevention and scope for integrating prevention efforts within these; and the role of HIV positive people in such programmes. These meetings were attended by over 125 HIV-positive people representing different positive networks from across India. The key issues that emerged from these discussions are provided in Appendix II.



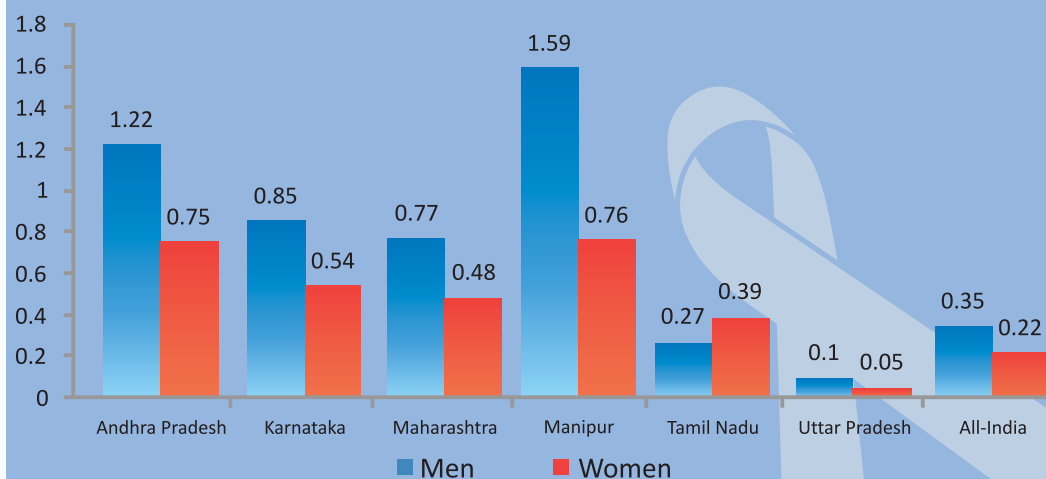
3. RESULTS

Data analyses from the National Family Health Survey and literature review considerably enhanced existing understanding on HIV transmission through intimate partner relationships in India and helped identify methods for preventing HIV proliferation. The results from data analyses and the literature review are presented in the following sections.

3.1 HIV prevalence in the general population

HIV prevalence in the general population is disproportionately distributed across states within India and also across districts within states (IIPS and Macro International, 2007). Some of the states (Andhra Pradesh, Karnataka, Maharashtra and Manipur) have recorded over 0.75 percent HIV prevalence among men aged 15-54 years and 0.5 percent among women aged 15-49 years in the general population (See Figure 3).

Figure 3: HIV prevalence in the general population in selected states and nationally – NFHS 3 (2005-06)



Y-axis: Prevalence in percentage

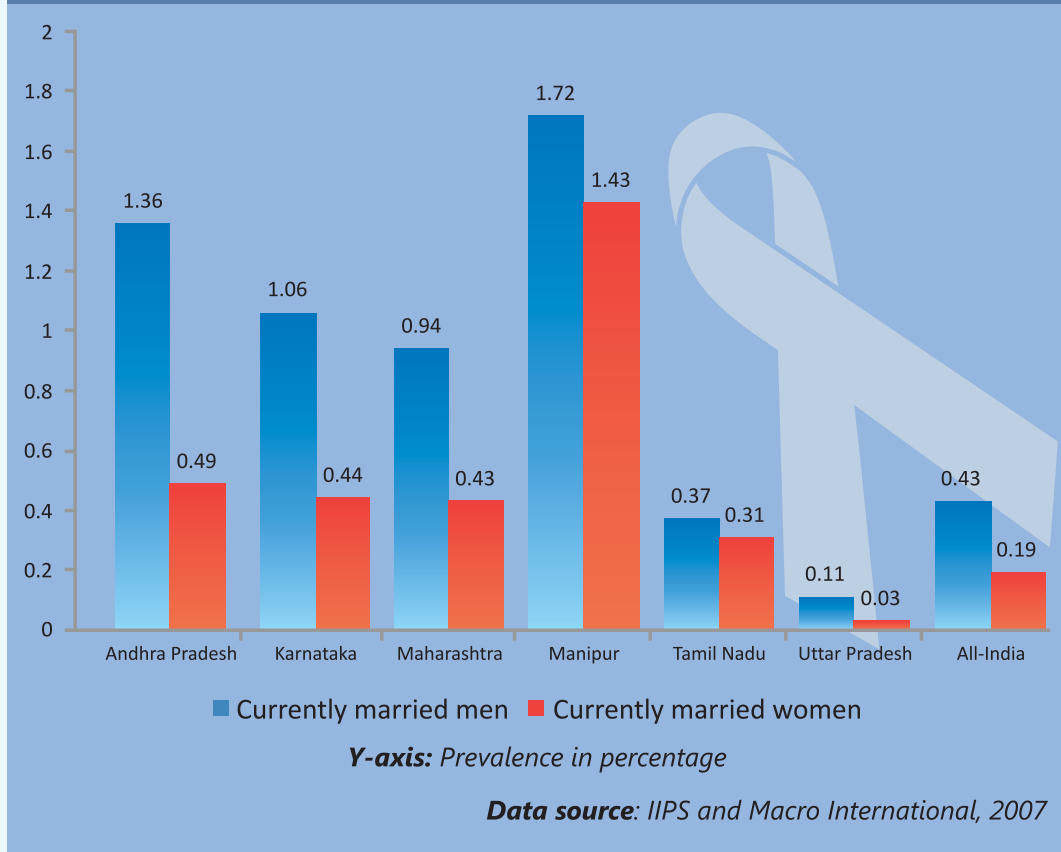
Data source: IIPS and Macro International, 2007

3.2 HIV prevalence among the currently married population

Analysis by gender in marital union suggests that HIV prevalence rates are significantly higher among currently married men in India at 0.43 percent than among currently married women at 0.19 percent ($p < 0.001$). The gap between HIV prevalence in currently married men and women is low in the states of Manipur and Tamil Nadu; but significantly higher in the states of Andhra Pradesh, Karnataka and



Figure 4: HIV prevalence among the currently married population in selected states and at national level



Maharashtra. These results indicate the likely existence of greater proportions of sero-discordant couples in the high-HIV prevalence states of India.

3.3 HIV prevalence among currently married individuals by urban/rural residence

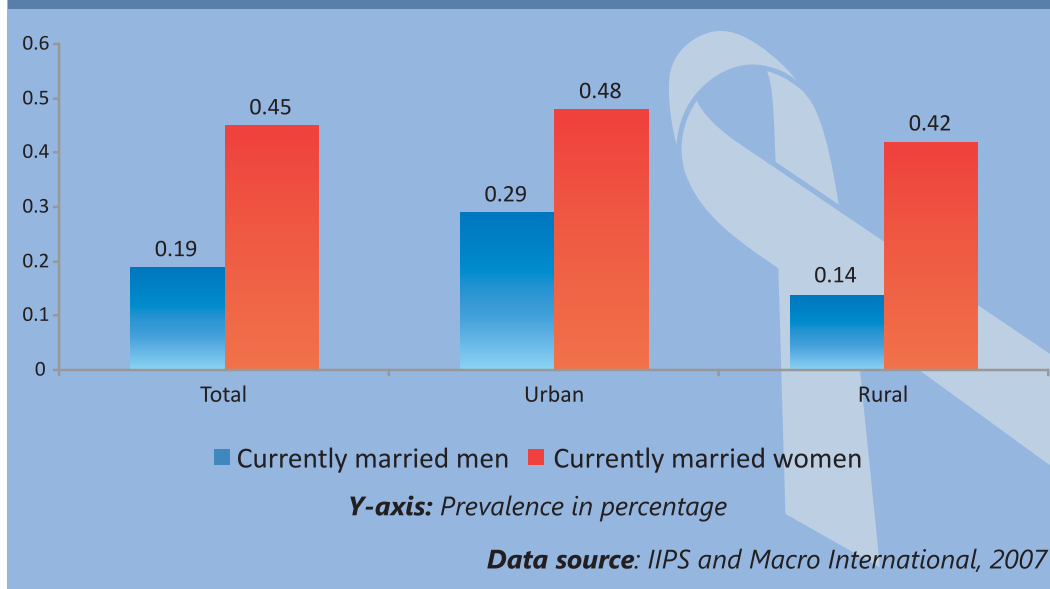
Overall, HIV prevalence in urban areas is higher than in rural areas. There are differences by gender, however. While HIV prevalence among currently married men does not show much difference between urban (0.48%) and rural (0.42%) areas ($\chi^2 = 0.621$; $p=0.243$), there is a significant difference among currently married women between urban (0.29%) and rural (0.14%) areas ($\chi^2=9.93$; $p<.001$). This is indicative of the need for implementing HIV prevention programmes for women, particularly, in rural areas.

3.4 Patterns of HIV infection among couples by place of residence

Data on HIV infection amongst married couples reveals that in one out of every 200 married couples in the country at least one or both the partners is with HIV



Figure 5: HIV prevalence among currently married individuals by urban/rural residence



(Table 1). In slightly more than one in every thousand married couples, both partners are infected with HIV. This proportion does not differ significantly by the urban/rural residence. In four out of every thousand married couples only one of the partners is infected with HIV. Male sero-discordance—which is when the man is HIV-positive and his wife is HIV-negative—does not differ considerably by urban-rural residence. Female sero-discordance—which is when the woman is HIV-positive and his husband is HIV-negative—is, however, higher in urban than in rural areas (0.14% versus 0.04%; $p=0.018$).

Table 1 HIV concordance and discordance among the total urban-rural sample of married couples in India (N=27,771)

Husband Wife	Total Sample (N=27,771) % (weighted N)*	Urban couples (N=8,723) % (weighted N)*	Rural couples (N=19,048) % (weighted N)	p-value
Sero-negative couple (HIV -/HIV-)	27,634 (99.50)	8,669 (99.38)	18,963 (99.55)	0.079
Sero-discordant couples (HIV +/HIV-)				
Male HIV+/female HIV-	89 (0.32)	35 (0.40)	54 (0.28)	0.123
Female HIV+/male HIV-	19 (0.07)	12 (0.14)	7 (0.04)	0.018
Sero-concordant couples (HIV +/HIV+)	30 (0.11)	7 (0.08)	23 (0.12)	0.309

By extrapolating proportions from survey data to the total number of married couples from the Census 2001 data in the same age-group (~236 million married couples in the reproductive age-group, according to 2001 census), a conservative estimate of 1.18 million married couples affected by HIV is obtained. Women are HIV-negative in about 0.76 million couples and the men are HIV negative in



about 0.16 million couples. These data indicate that there is a large cohort of sero-discordant married couples where, in some cases, men, and in others, women, are HIV-positive.

3.5 Literature review findings on factors associated with HIV transmission in intimate partner relationships

Based on the search criteria, over fifty relevant studies and reports were identified from the internet search engines and other sources. Findings from these studies form the basis for conceptual understanding on the issue under inquiry. The review findings offer important insights to HIV transmission in intimate partner relationships and its associated factors. The findings in this report must however, be interpreted the light of certain limitations. As is true for most reports based on literature review, in this report also several studies differ considerably in their designs and publication bias. It is hence difficult to generalise the findings. Due to the lack of documented scientific literature in India on many issues such as HIV transmission from females to males, from bisexual men to their female partners and from infected IDUs to their steady sexual partners; discussion on these domains is limited. Further research is recommended in the report to fill these gaps. Although data on HIV sero-prevalence indicates that male partners of some of the positive women are sero-negative, the major part of the report focuses on factors associated with male-to-female transmission. This is because of a lack of research evidence on female-to-male transmission of HIV infection.

3.6 HIV transmission from men to their intimate sexual partners

As stated previously in the report, gender inequities within marriage, cultural norms and limited economic and social autonomy leave women with poor or no control over decisions related to sexual activities. These factors propel the risk for HIV transmission from men to women. A woman's limited or lack of control over her sexual life is exacerbated by intimate partner violence that includes coercive sex (Silverman et. al., 2008). Intimate partner violence—a manifestation of gender inequality, poverty and cultural constructions of masculinity—contribute to increased HIV/STI risk in married women (UNICEF, 2004). In addition, intimate partner violence is more common in relationships where husbands have extramarital sex and STI-like symptoms and other sexual problems (Gangakhedkar et. al., 1997; Martin et. al., 1999; Verma & Collumbien, 2003).

A major barrier to HIV prevention in intimate partner relationships is the lack of communication on sexual risk and sexuality among partners, the wife's inability to refuse the husband's demand for sex, and coercive and forceful sex within marriage. Many women, particularly those from the lowest socio-economic strata, carry significant household and social burdens and responsibilities that include meeting the needs of their husbands, children and the in-laws. Gender discrimination,



poverty, illiteracy, early and forced marriages, poor marital relationships and limited social support play a significant role in enhancing sexual risk in women. Not only are women biologically more vulnerable than men, they also bear a heavy burden of reproductive and sexual health problems due to early marriage, early initiation into sex and multiple and frequent pregnancies. These socio-economic vulnerabilities coupled with limited communication between partners and women's inability to negotiate safer sex enhances their vulnerability to infection. The risk is further magnified in the case of women whose sexual partners do not disclose their HIV status or belong to Most-At-Risk Population (MARP) groups such as IDU, MSM and clients of FSWs.

3.6.1 Non-disclosure about HIV status and associated risk to the partner

Different male and female perspectives on sexuality make disclosure of HIV status to the partner difficult. Though literature on the subject is sparse, evidence shows that non-disclosure of HIV status leads to greater risk for infection in intimate partner relationships (Kalavathy and Vijayasankar, 2000; Taraphdar et. al. 2007). Non-disclosure to the wife has serious implications for HIV transmission if the seropositive husband continues to have unprotected sex. Chandra et. al. (2003)—who conducted a study in south India on issues related to self-disclosure of seropositive status among 68 persons (35 men and 33 women) infected with HIV—report a voluntary disclosure rate of only 65 percent of the total cases. Another household survey finds that while 84 percent women informed their spouses immediately after they were tested HIV-positive, the percentage of men who did the same was much lower (69%) (UNDP, 2006). It is unclear from these studies whether or not there was a delay in disclosure and, if so, for how long.

Based on their 2007 study, according to Taraphdar et. al. there were more negative outcomes for women rather than men following disclosure. The lack of timely disclosure from men resulted in repeated pregnancies that were both unwanted and unplanned (Suryavanshi et. al. 2008). There is evidence to show that disclosure of HIV-positive status by women to their partners can result in increased partner violence and accusations of infidelity, stigma and abandonment (Desai, 2005). Though these are clearly negative consequences of disclosure for women, the positive outcomes have far great significance and cannot be ignored. Literacy and longer duration of the relationship appear to be important factors facilitating disclosure of sero-status (Taraphdar et. al. 2007). Disclosure can benefit the infected individual through the provision of social support, access to HIV prevention and treatment, opportunities for risk reduction and prevention of HIV transmission to the uninfected partner. Risky behaviour changes most dramatically among couples where both partners are aware of their HIV sero-status. It also enables couples to make informed reproductive health choices, which may ultimately lower the number of unintended pregnancies among HIV positive women (Taraphdar et. al. 2007). The importance of disclosing HIV-positive status to the partner was emphasised by



the World Health Organization and the Centre for Disease Control as an important goal for HIV prevention more than a decade ago (UNAIDS, 1997). Little though is known in India about best practices for disclosure and associated positive effects of such disclosure for preventing HIV transmission in sero-discordant couples/unions.

3.6.2 Poor reproductive and sexual health and HIV risk to the partner

Population-based studies in India document a high prevalence of gynaecological morbidity and poor treatment-seeking behaviours among women. Data from the National Family Health Survey showed that two in five ever-married women reported at least one gynaecological related symptom such as vaginal discharge (31%) or a urinary tract problem (17%) (IIPS and ORC Macro, 1998-99). Approximately 11 percent of the women reported symptoms of STIs such as genital discharge or sore/ulcer at least once in the past 12 months (IIPS and Macro International, 2007). Micro-level, community-based studies indicate that between 55 and 100 percent of ever-married women report one or more symptoms related to reproductive morbidities and STIs (Bhatia & Cleland, 1995; Garg et. al., 2002; Kambo et. al., 2004; Koenig et. al., 1998; Oomman, 2000; Prasad et. al., 1999). It is well-documented that women with STIs such as genital ulcer and syphilis are at increased risk for HIV (Rodrigues et. al. 1995; Reynolds et. al. 2006).

Evidence also suggests that most Indian women (54-82 percent) do not seek treatment for gynaecological problems (Bhatia & Cleland 1995; Oomman 1996). One reason is that RTI/STIs often are asymptomatic. Another is that the women may perceive the symptoms as non-pathological which does not require treatment (Apte et. al., 2001; Gerbase et. al., 1998; Prasad et. al., 2005). Other barriers to health care include women's lack of health knowledge and limited autonomy and mobility (Apte et. al., 2001; Bang et. al., 1989; Gittelsohn et. al., 1994; Koenig et. al., 1998; Mamdani, 1999; Mertens et. al., 1998; Oomman, 2000; Prasad et. al., 2005; 1999; Santhya & Dasvarma, 1998). Social stigma associated with reproductive health problems and STIs further limits women's ability to make appropriate treatment decisions (Prasad et. al., 2005; Jejeebhoy & Koenig, 2003; Sharada, 1997).

3.6.3 Biological vulnerability of women to STIs

Biological factors place women at a greater risk than men for contracting STIs including HIV. As the female reproductive tract's tissues are soft and tear easily; it provides a transmission route for the virus. Vaginal tissue, additionally, absorbs fluids readily. As seminal fluid has a higher concentration of the HIV virus than female vaginal secretions, it may remain in the vagina for hours following intercourse (UNAIDS, 1998a).

An important risk factor for HIV is the presence of other STIs. Women vis-à-vis men are more likely to have untreated STIs as in women STIs are asymptomatic. Shame or fear of visiting a doctor is known to also prevent women from seeking treatment (PAHO, 2002). A study of 2,800 patients seeking STI treatment at clinics in



Pune revealed that the prevalence of HIV-1 infection was independently associated with current or previous history of genital discharge in women (Rodrigues et. al., 1995). An increased risk for HIV infection is associated particularly with syphilis even after controlling for other sexual risk behaviours suggesting that syphilis is independently associated with HIV infection (Reynolds et. al., 2006).

3.6.4 Early marriage and young adults

In India, more than two-fifths (45%) of all women marry before the legal age of 18 years (Raj et. al., 2009). Early marriage and early initiation into sex is significantly associated with the risk for early fertility, repeated fertility and early age at sterilisation (Raj et. al., 2009; Santhya and Jejeebhoy, 2007). Early age at sterilisation reduces rate for condom use and heightens risk for HIV and other STIs (Santhya and Jejeebhoy, 2007; Bhattacharya, 2004). A study among women attending STD clinics in Pune suggests that younger married women (those aged 20-29 years) were considerably more likely to be HIV-positive than older married women (Gangakhedkar et. al., 1997).

The most intractable set of factors causing sexual and reproductive health vulnerability among young women relates to their powerlessness due to lack of education, paid employment and individual autonomy (Hawkes & Santhya 2002). Women who marry at younger ages have less intimacy with their husbands and thus limited social support (Barua and Kurz, 2001; Santhya and Jejeebhoy, 2007). These women lack the power to negotiate safer sex and are, therefore, more susceptible to STIs than those who marry at older ages. The latter are also more likely to seek health care (Bloom et. al. 2005).

3.6.5 Violence and sexual abuse

Data from the National Family Health Survey conducted in 2005-06 revealed that 35 percent of women aged 15-49 years had experienced physical or sexual violence. This proportion was 40 percent for ever-married women and 17 percent for never-married women. Incidence of physical and sexual violence was higher in rural rather than urban areas (IIPS and Macro International, 2007). Further analysis of data suggests that HIV prevalence was four times higher among married women who experienced both physical and sexual violence by their intimate partners than women who were not abused (Silverman et. al., 2008). Abusive men were almost twice as likely to acquire HIV outside their marital relationships and they place their wives at greater risk for HIV by an estimated seven times (Decker et. al., 2009). A

STI incidence among women with experience of sexual violence or disadvantaged marital status

	STI incidence
Overall	1.8%
Women married and exposed to sexual violence	10.9%
Women separated, divorced or widowed	11.0%

Source: *Spousal sexual violence and poverty are risk factors for sexually transmitted infections in women: a longitudinal study of women in Goa, India. Weiss et. al. Sexually Transmitted Infections 2008;84: 133-139.*



study of 6,632 married men aged 15 to 65 years from five regions of Uttar Pradesh documents abusive men to be more likely to engage in extramarital sex and have STD symptoms vis-à-vis men who are not abusive (Martin et. al., 1999).

Certain male behaviour is identified as predictors of marital violence such as jealousy, possessiveness or control. It includes suspicion over the wife's unfaithfulness; husband's restriction over the wife's freedom to meet her female friends and family; monitoring the wife's movement; lack of trust over money making decisions etc. (Campbell et. al., 2003; Kishor and Johnson, 2004). According to national level data; approximately 43 percent of married women have reportedly experienced abusive behaviour from their respective husbands (IIPS and Macro International, 2007). A study examining the pathways by which social norms influence marital violence has shown that sexual violence and marital conflicts are intensified by the presence of community-level stressors such as poverty and unemployment (Go et. al., 2003b). Additionally, women in socially disadvantageous positions are at increased risk for both violence and STI from their husbands (Weiss et. al. 2008). Numerous studies from India suggest that strong masculinity attitudes are associated with sex outside marriage and with sexually violent behaviours (Martin et. al. 1999; Verma and Collumbien, 2003; Desai, 2005).

Violence perpetrated by men such as wife-beating is associated with prevailing socio-cultural and gender norms in society (Silverman et. al., 2008; Martin et. al., 1999). Go et. al. (2003, N=48) examined how norms influence marital violence in low income communities of Chennai. The study found that husbands' decision-making power in economic, social and sexual spheres was associated with wife-beating. Significantly, sexual violence and marital conflicts were intensified by the presence of community level stressors such as poverty and unemployment. Weiss et. al. had similar findings from their 2008 study on the subject.

3.6.6 Alcohol abuse and extramarital behaviours among married men

According to the National AIDS Control Organisation's (NACO) Behaviour Surveillance Survey conducted amongst clients of female sex workers; nearly three-fourths of the clients reported alcohol consumption (NACO, 2006). Several other studies in India find men who attend STD clinics as more likely to drink alcohol and indulge in higher risk sexual behaviours (Sivaram et.al., 2006). Men who consumed alcohol were 2.7 times more likely to visit a sex worker than those who did not (Chaturvedi et.al., 2006). A study in Chennai examined the linkages between violence within marriage, alcohol use and HIV prevention behaviour. It suggested that the 'ideal man' avoids alcohol use and extramarital sex and a 'typical man' drinks alcohol excessively, beats his wife and has sex with women outside marriage. This study indicated that alcohol use compounds the problem both by increasing men's desire for sex and by triggering violent behaviour. Alcohol consumption effects a person's behaviour; particularly his or her judgement and decision making power. There resultantly is a higher risk of exposure to STIs (Go et.al., 2003).



Das et. al. in their study on male clients of female sex workers attending STD clinics reported that 69 percent among HIV positive men and 71 percent among HIV negative men consumed alcohol. Alcohol use was in fact very high among the cohort of men in Most-At-Risk Population (MARP) groups. (Das et.al., 1998). Having sex under the influence of alcohol was associated with unprotected sex (odds ratio [OR]: 3.1; 95% confidence interval [CI], 2.3-4.1), anal sex (OR: 1.5; 1.1-2.0), and more than 10 FSW partners (OR: 2.2; 1.8-2.7). Also, the influence of alcohol was independently associated with having an STI or HIV (OR: 1.5; 1.2-1.9) (Madhivanan et.al., 2005).

Men drink in social situations where peer pressure encourages them to visit sex workers.

Under the influence of alcohol, a man is more likely to forget to use a condom or not to use it properly or is disinclined to use it. In combination with the absence of communication with the wife, alcohol use results in risky sexual behaviours (Sivaram et. al.2006; Schensul et. al., 2006). Evidence from other studies shows men who consume alcohol frequently—daily or weekly—as more likely to engage in extramarital sex (Schensul et. al., 2006; Saggurti et. al., 2008). This increases the chance for acquiring or passing infection to uninfected partners.

Schensul et. al. conducted a study among 2,408 men and a matched sub-set of 260 men and their wives in three low-income communities in Mumbai. The aim was determining the correlates of extramarital sexual (EMS) behaviour in the context of and in interaction with marital relationship. The study documented how extramarital sex behaviour is predicted through certain husband-wife characteristics (Schensul et. al., 2006). Five husband variables (that is; increased age gap between men and women, men born in Mumbai and not migrants, men’s lower education, men’s greater alcohol use and husband’s reports of fewer number of sex acts in marital sex) and four wife variables (that is; lower age of wife, wife’s unwillingness to participate in sex, wife’s report of greater violence in husband’s behaviour and wife’s negative assessment of herself as a spouse), were significantly associated with men’s extramarital sexual behaviour. As stated previously, unsafe extramarital sex increases risk for HIV and other STIs for men and their wives. The study recommended that this though needed to be addressed within the context of the marital relationship though first, making the woman aware that her monogamy does not necessarily protect them from risk. Second, by improving the marital relationship and preventing the husbands’ unsafe extramarital sexual behaviour (Schensul et. al. 2006). This is difficult to achieve as existing societal norms dictates women to accept their husbands’ marital infidelity in order to stay in a married state (Nag, 1995).

Married men’s (aged 21-40 years) reports of extramarital sex and condom use from low income communities of Mumbai, India

Ever had extramarital sex (n=2408)	22%
EMS in last year	13%
Mean no. of sex partners	1.6
Mean no. of liaisons	8.5
Condom use in last sex	40%
Condom use with FSW	31%
Of those who had EMS with FSW	N=92
Mean no. of FSW partners	3.2
Mean no. of liaisons with FSWs	4.3
Alcohol use during last sex act	37%

Source: Men’s extramarital sex, marital relationships and sexual risk in urban poor communities in India. Schensul et. al. *Journal of Urban Health* 2006; 83(4): 614-624.



3.6.7 Marital communication and relationships

A major cause and consequence of women being subjected to intimate partner violence and extramarital behaviours is poor or lack of communication between partners on sexual behaviour and sexual health (Sivaram et. al. 2005). Exploring the link between contextual and individual factors influencing sexual health of the husband and wife, Maitra and Schensul (2002) suggest that there are complexities and variations in female-male relationships. A major construct in the analysis of sexual relationships is that of sexual equity within marriage. This is closely linked to early marital experiences and includes violence and coercion. Individual's marital sexual relations are affected if the woman faces violent sex on the wedding night. In a study by Singh et. al. (1998)—that was conducted in five districts of Uttar Pradesh and amongst 6,727 husbands—inadequate knowledge on reproductive health and STDs made communication between partners difficult. Inhibitions to discuss STDs were further complicated by traditional societal norms that dictated a woman to play submissive and passive roles.

Lack of communication in marriage also results in reduced sexual negotiation power for the wife. A study of 109 women in a village in Gujarat showed that denial of sex had serious repercussions such as forced sex, infidelity, physical violence, use of abusive language by the husband and beating of children (Sharma et. al. 1998). Unlike sex workers, a monogamous married woman has little control over sexual negotiation and is faced with the dilemma of choosing between disease prevention and the fulfilment of her reproductive role. Mane et. al. (1994) have shown that economic factors play an important role in sexual negotiation as economically active women can exert power and withhold sex if the partner does not agree to use a condom.

Sexual negotiation for women becomes all the more difficult because perspectives on sexual pleasure and sexuality differ between men and women. In an in-depth study by George (1998) on sexual negotiation in marriage among 65 married women and 23 married men of reproductive age in a low-income area of Mumbai, women felt that it was not appropriate for them to express their sexual needs. Contrarily men wanted women to be more sexually active and expressive. Safer sexual practices were barely on the agenda for negotiation within marriage. Women are unable to negotiate in their sexual relationships due to lack of power in the relationship, men's attitudes about sex in marriage and because of societal norms (Bloom et. al. 2005; Hawkes & Santhya, 2002).

3.6.8 Low HIV risk perceptions and lack of knowledge

Many women in monogamous marital relationships do not consider themselves at risk for HIV (George A, 1998; Sudha T. et. al. 2007; Chatterjee and Hosain, 2006). In a study of 350 married women in Mumbai, Chatterjee and Hosain (2006) examined their knowledge and risk perceptions about HIV, their awareness of particular risk situations, and behavioural change in response to HIV. Women's belief in fidelity



and their trust in their husbands were major reasons for not using condoms. Even though the primary risk factor for HIV in married women appeared to be their spouses' involvement in extramarital or paid sex, women did not use any barrier method during sex because of their explicit faith in their husbands (Sudha T. et. al. 2007). Even women who knew of their husband's infidelity did not perceive themselves to be at risk as they felt it would be a breach of trust within marriage. They were unable to take preventive action after weighing up the social risks. From their research, Santhya and Jejeebhoy (2007) concluded that married young women are at an elevated risk due to lack of awareness on HIV and AIDS and safer sex practices; limited or no access to appropriate information and to reproductive health services; and unequal gender norms.

3.6.9 Socio-cultural and gender norms

Cultural traditions and beliefs as well as gender norms influence the behaviour of both men and women. Although gender is a culture specific construct, what is fairly consistent across cultures is that men are required to play active and dominant roles whereas women tend to restrict their activities to the household, which creates an imbalance of power between them (WHO, 2003). Gender gaps between women and men in literacy, school enrolment, labour force participation, land ownership, and access to credit are testimony to this difference in power-sharing (UNIFEM, 2000). The imbalance of power between men and women that favours men is deeply rooted within the socio-cultural context of society and is further enforced by social institutions such as the family. Consequently, women have little choice in these matters (WHO, 2003).

The socio-cultural and gender norms—that is instrumental in facilitating higher risk sexual behaviours—put men and women at risk for HIV within marriage and in steady sexual relationships. For instance, norms of masculinity encourage men to engage in extramarital sex and have multiple partners. This though increases their risk for HIV (Sivaram et. al. 2006).

Pilot intervention studies find how male involvement in HIV prevention efforts can make them more gender sensitive and can reduce sexual violence and extramarital sex (Schensul et. al. 2009). Evidence from low income communities in Mumbai showed how 126 men's attitudes on their entitlements and dominance vis-à-vis their female partners changed to positive attitudes—regarding gender, sexuality and intimate relationships—through participation in a gender-focused intervention (Verma et. al. 2006). A review of studies on this topic has revealed that socially constructed norms of masculinity and femininity are manifested in various forms of behaviour by both men and women. While extramarital sexual behaviour, alcohol use and sexual violence by men facilitate in HIV transmission to their partners; the traditional and submissive roles played by women leaves them with limited economic resources and economically and socially dependent on partners. Their sexual and reproductive health resultantly is affected.

Based on the public health model and a population-based perspective on HIV



prevention, Bhattacharya (2004) has illustrated the underlying mechanisms that link the role of women in society, holistic health beliefs, and cultural beliefs about HIV transmission with the precursors to non-use of condoms. The author suggests reducing the severity of risk factors for the entire community rather than screening primarily the Most-At-Risk Populations (MARPs) for intervention. This implies the need to look beyond the inevitable and identify groups such as women in monogamous relationships who are apparently not at risk.

3.6.10 Economic and social dependency

It is documented that limited access of women to resources renders them in many ways dependent on men for their own and their children's survival. First and foremost, it results in women being deprived of decision-making power, even if they are aware of their husband's risk behaviour (Mane 1994). Economic dependence jeopardizes a woman's ability to exercise any control over sexual negotiation and other issues related to sexual behaviour change since for many, sexual intercourse is not a question of choice but a matter of survival. Thus, a woman's economic vulnerability leaves her prone to HIV infection if her husband is infected. On the other hand, a woman who is economically independent has more freedom to exercise control over sexual matters and her status in the family is also elevated (Sharma et. al.1998).

Other studies from India suggest that economic security such as property ownership helps widows who are infected with HIV to keep their children in school longer, as otherwise it is difficult for widowed households to continue the education of children (UNDP, 2006). According to a study in Kerala, women who own property were less likely to face violence in their homes (Panda and Agarwal, 2005). Another study by Panda et. al. (2006) showed that women's property ownership was linked to a substantially lower risk of marital violence. Women who owned land or a house were at significantly lower risk of physical and psychological violence—both long-term and current—and were also able to exit violent relationships. Research has shown that among women without property, 49 percent experienced long-term physical violence and 84 percent experienced long-term psychological violence. In contrast, women who owned both land and a house reported dramatically less physical and psychological violence (6.8% and 16.4%, respectively). Similar findings are noted in another multi-site study in India where women with property reported less overall violence than those who did not own property. House ownership as opposed to land, was more critical (ICRW, 2007).

A woman's economic vulnerability is also related to her husband's socio-economic position. Shepherd et. al. (2003) studied a sample of 2,260 HIV negative men in three public outpatient STD clinics in Pune. They found that the heightened risk among the most disadvantaged men was mediated by factors such as lack of understanding of HIV transmission, increased exposure through high-risk behaviour and increased susceptibility operating through biological co-factors. They recommended that with enhanced access to treatment and interventions that



include counselling, education, and provision of condoms for the prevention of STDs and genital ulcer disease among disadvantaged men, the disparity in the rates of HIV incidence could be considerably reduced. Nevertheless, given the same level of knowledge on HIV and AIDS, risk behaviour and the biological co-factors, the most disadvantaged men still had higher rates of HIV incidence.

3.6.11 Contextual factors influencing HIV risk within marital or steady sexual partner relationships

Several contextual factors related to individual socio-demographic characteristics, family living conditions, economic status, traditional practices, MSM and IDU risk behaviours, and environmental factors such as the media and societal values play a role in increasing vulnerability to HIV within marital and steady sexual partner relationships. The three most important contextual/structural factors impacting HIV transmission in intimate partner relationships either directly or indirectly are: (1) HIV risk to the female partners of male injecting drug users, (2) HIV risk to the female partners of men who have sex with men, and (3) HIV risk to the female partners of male migrants.

3.6.11.1 Male injecting drug users and HIV risk to their female partners

Male injecting drug users are potential transmitters of HIV infection to their female partners as they not only share injections with their female partners but also have unprotected sex with them (UNODC, 2005b). The Behavioural Surveillance Survey in India suggests that greater proportions of IDUs reported having sex with regular female partners than with female sex workers or non-regular partners. Consistent condom use was

relatively low with regular female partners compared to female sex workers (NACO, 2006). A study by Panda et. al. (2000) among 161 IDUs and their wives in Manipur showed that the risk of HIV infection increased over three fold in couples where either or both partners had a history of STDs and for 97 percent of the wives of current or ex-IDUs who reported sexual relations only with their husbands. This reiterated monogamous women's risk of getting infected. The study also showed that a longer duration of HIV infection in the husband due to early initiation of an injecting habit increased the likelihood of HIV transmission to the wife. A study from Chennai in south India also reported multiple risk behaviours such as transactional

Risk factors for HIV infection in IDUs and onward transmission to their sexual partners

Variables	Adjusted Odds ratio	95% CI	P
Resident of north central Chennai	5.7	2.4 – 13.6	<0.001
Resident of east central Chennai	2.0	0.7 – 5.5	0.1
Presence of tattoo	2.4	0.9 – 6.5	0.07
Have ever been in jail	1.8	0.9 – 3.5	0.07
Ever injected drug in drug-selling place	2.1	1.1 - 4.1	0.03

Source: Risk factors for HIV infection in injecting drug users and evidence for onward transmission of HIV to their sexual partners in Chennai, India. Panda, S. et. al. JAIDS 2005; 39(1): 9-15

**Risk factors for transmission of HIV from male IDUs to their wives**

Variables	Adjusted Odds ratio	95% CI	P
Any STD of couple reported by husband	3.3	1.3-8.3	0.1
History of blood transfusion in wife	5.1	1.2-25.3	0.4
Estimated duration of HIV in husband >8 yrs	2.1	1.0-4.4	0.05
Husband never uses condoms	1.8	0.9-3.4	NS

Source: *Transmission of HIV from injecting drug users to their wives in India.* Panda, S. et. al. *International Journal of STD & AIDS* 2000; 11-468-473.

sex or sex with men among those who used illicit drugs, indicating that there is a need to prevent sexual transmission in drug use settings—in addition to introducing measures to reduce the availability of drugs, implementing de-addiction programmes, providing education for safe injecting practices and providing clean needles (Go VF et. al. 2004).

A study by Panda et. al. (2005) among 226 IDUs and their regular sex partners in central Chennai revealed that 16 percent of the regular sex partners of HIV-infected IDUs tested HIV positive. And HIV risk perception was very low in both IDUs and their regular sex partners. These studies indicate that ongoing harm-reduction measures for IDUs should include their regular sex partners, incorporate additional elements of outreach to women, and promote women controlled measures. Managing STIs, as indicated by baseline studies on IDUs and their regular sex partners should form an integral part of this enhanced comprehensive intervention approach (Panda et. al. 2007).

Injecting drug use connects countries in the South Asia region. Drugs supplied from India's border areas with Bangladesh could have played a role in the emergence of IDUs in that country, estimated at 20,000 in Dhaka, Rajshahi, and other towns in the border areas. HIV prevalence among injecting drug users in Bangladesh was as high as 7 percent which is greater than the critical level of 5 percent for a concentrated epidemic. Straddled between Afghanistan and India, Pakistan has about 500,000 chronic heroin users of whom 15 percent report injection as their primary mode of use (UNODC 2002).

3.6.11.2 HIV risk among female partners of men having sex with men

Other most at risk population groups who put their married and steady female sexual partners at risk are bisexual men who have sex with men as well as with women including their wives. The first population based study conducted by Go et. al. (2004) among MSM populations documented that 57 percent of the men reporting same sex behaviour in 30 slums of Chennai were married. Norms of masculinity in India are publicly acknowledged through marriage (Asthana and Oostvogels, 2001; Khan, 1994). This social compulsion forces many homosexual men to enter into matrimony. Yet they continue to have sex with men inconspicuously. In these situations, it is the wife who is at risk of contracting STIs, including HIV, from her husband who may get infected because of his risky behaviour with men. In a study with a large sample of 6,661 MSM from rural and urban locations in 13 districts of Andhra Pradesh, it was found that over half of the MSM reported not using condoms for anal sex with men. About a quarter reported not using condoms both



for anal sex with men as well as for vaginal and anal sex with women. It is suggestive of a high risk of transmitting and acquiring HIV and passing on the infection to their female partners, especially their wives (Dandona et. al. 2005a). This study underscores the need to pay adequate attention to homosexuality/bisexuality and examine its implications

for preventing HIV transmission in India. These results are corroborated by a cross-sectional survey of 2,910 rural men aged 18-40 years from five rural districts of five states that shows that nearly 3 percent of married men had had unprotected anal sex with a man in the past year (Verma and Collumbien, 2004).

MSM are not a separate sexual category. They report extensive mixing with female partners. In fact, they have more female partners than male partners and they practice anal intercourse in 11 percent of their heterosexual contacts. These findings emphasize the potential risk faced by their spouses for HIV. Low condom use among MSM has been widely reported (Verma & Collumbien, 2004; Dandona et. al. 2005a) though this is extended to other men among key populations as well—men who buy sex and men with multiple lifetime female partners (Schneider et. al. 2007). Currently married MSM are less likely to use condoms with men and women than non married MSM. Their most common reason for not using a condom with women is because they do not use condoms with their regular partners (Dandona et. al. 2005a). Using the data from a previous study (2005a) Dandona et. al. (2006) focused on MSM who sold sex to other men and calculated the annual probability of their acquiring HIV (146/1000). The rate was found higher for men who sold sex than for those who did not sell sex to men (60/1000) and much higher for women who sold sex (22/1000).

MSM in India, as in other low and middle income countries, are at risk for HIV (Baral et. al., 2007). Men often do not perceive anal sex as a risk factor for STI transmission. And even when they do, they use condoms less frequently during anal sex (Dandona et. al., 2006). This reflects the possible risk of their acquiring and transmitting HIV to their regular female partners.

3.6.11.3 Risk of HIV transmission by migrant men to their female partners

Various studies have documented that migrant men who live away from their spouses are more likely to engage in paid sex and become infected with HIV and other STIs than migrants who live with their families (Mishra 2004; Saggurti et. al., 2008). These infected men return to their villages of origin and infect their regular female partners who, in most cases, are their wives (Morris et. al., 1996; Entz et. al., 2000; Chandrasekaran et. al., 2005; Decosas et. al., 1995). Thus, migrant men

Rural men who have sex with men (MSM) and their reports of sexual relationship with females

Type of partner	Married MSM (n=72)
Wife	100%
Regular female partner	31%
Sex worker	8%
Casual female partner	36%
Any female non-marital partner	53%
>3 partners in past year	57%

Source: *Homosexual activity among rural Indian men: implications for HIV interventions.* Verma,R. and M.Collumbien. *AIDS* 2004; 18: 1845-46



are considered a primary bridge population spreading HIV from urban to rural India (Gangakhedkar, 1997). A study on a migrant tribal community of eastern India showed other factors that increase women's vulnerability to HIV are: low age at marriage, early age of first sexual intercourse, low level of knowledge about HIV transmission and its prevention, and low risk perception as well as non-use of condoms (Mishra et. al. 2008). Coincidentally, the prime destination states for migrants within India are also the states with high HIV prevalence.

International migration, primarily from the neighbouring countries in South Asia, is also on the rise, with Maharashtra (the state with highest HIV prevalence) being a major destination (Nepal, 2007; Gurung, 1998). Recent research on Nepali migrants—who constitute a major international migrant population group in India—documents high prevalence of HIV and syphilis among male returnees to Nepal (Gurung, 1998). These infections are presumed to occur via male migrant contact with infected sex workers in India (Poudel et. al. 2003). A study in the urban slum communities of Mumbai has shown that married men with occupational mobility and living separately from their wives have a two-and-a-half time's greater probability of engaging in extramarital sex than non-mobile men with residential wives (Saggurti et. al., 2009).

In India, the use of contract labour in employment is increasing, particularly in the construction industry, industrial production, mining, fishing and market labour (Rao et. al., 1994). These industries have traditionally employed migrants. A 2008 year study by Saggurti et. al. suggests that more than one-third of male migrant workers are contracted labourers. And there is a hierarchical structure within the contractual system that could provide entry points for initiating HIV prevention interventions (Saggurti et. al., 2008). In this study, a notable proportion of the contracted labourers reported alcohol use in conjunction with, sex with multiple sex workers, sex with multiple unpaid women, and sex with non-marital partners. Despite having multiple partners, these men reported low condom use and low risk perception. STI symptoms in the past six months were reported by significant proportions of these married men (Saggurti et. al., 2008).

In India, an estimated 258 million adults are migrants (Saggurti et. al., 2008), with a great majority migrating for employment (Institute for Human Development, 2008). The primary destination states for migrants are Maharashtra, Andhra Pradesh, and Karnataka, which are also the states with high HIV prevalence (Verma et. al., 2007). However, migration per se is not a risk factor for HIV. The conditions though under which many people migrate increases their vulnerability to HIV. According to a recently published study on HIV vulnerabilities of migrant women from Asia to the Arab States, their limited preparedness and poor access to information and services acted as key factors for increasing their vulnerability to HIV. However, banning migration pushes it underground and places women at an even greater risk for exploitation and HIV infection.



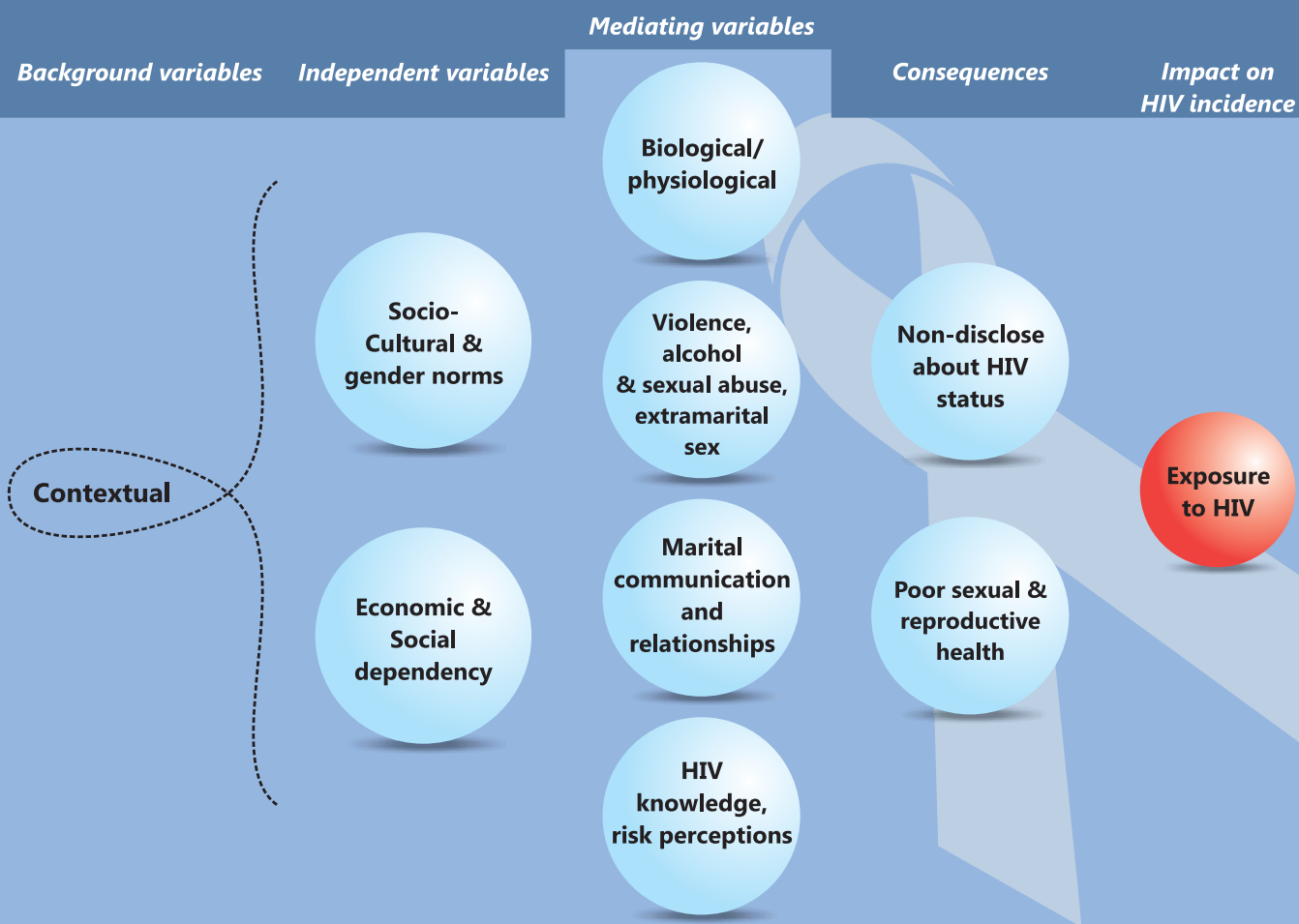
3.7 Framework of factors associated with HIV transmission from men to their intimate sexual partners.

This section presents an overview of the factors (discussed above) associated with HIV transmission from men to their intimate sexual partners. This comprehensive framework outlines the independent, mediating, output and impact indicators whereby the HIV prevention programme has the opportunity to prioritize interventions. This framework also expresses the need for comprehensive HIV prevention models for reducing risk of HIV transmission from men to their intimate sexual partners.

Primary outcome

Exposure to HIV: Women’s exposure to HIV from their infected husband/intimate sexual partners.

A conceptual model for implementing and monitoring a programme for the prevention of HIV among women in intimate partner relationships





Consequences:

Poor sexual and reproductive health: Knowledge, attitudes and behaviours related to sexual risk as well as the presence or absence of RTIs/STIs.

Non-disclosure about HIV status: Men do not disclose their HIV status to their partners in intimate relationships.

Mediating variables:

Biological and physiological: Women's biological and physiological vulnerability to HIV.

Violence, alcohol and sexual abuse and extramarital behaviours: Violence may be emotional, verbal, physical and/or sexual violence that is perpetrated against women. It includes intimate partner violence. It also includes past and present experiences of violence, strategies for coping with such violence, and resources for seeking help. Sexual abuse refers to abuse within spousal/regular sex partner relationships. Violence and sexual abuse are perpetrated by men on women. Alcohol abuse refers to binge drinking by women and men. Extramarital behaviours refer to unsafe sexual behaviours of men and women.

Marital communication and relationships: This refers to the quality of the relationship including communication, negotiation of roles and responsibilities, decision-making and satisfaction with the relationship.

HIV knowledge and risk perceptions: This includes knowledge about HIV transmission and prevention, associated protective behaviours, perceptions about risk to self and partners with particular focus on perceptions related to the degree of control over circumstances/factors that contribute to increased risk of HIV.

Independent variables:

Socio-cultural and gender norms: Socio-cultural norms refer to beliefs, values and norms prevalent in the society as well as social and cultural practices such as early marriage. Gender norms refer to norms of masculinity and femininity that are socially constructed and are culture-specific and differentiate the power, roles, responsibilities and obligations of women from that of men in society.

Social and economic dependency: Social dependency refers to women's inability to control factors leading to lack of knowledge, attitudes, beliefs, values, roles and responsibilities. Economic dependency refers to lack of skills for work and other economic engagements that lead to providing a protective environment for sexual health.

Background characteristics:

Contextual factors: Contextual factors relate to variables that include individual socio-demographic characteristics, family living conditions, economic status,



traditional practices, sexual identities (MSM, IDU), and environmental factors such as the media and community conditions. These variables contribute significantly to outcomes and are difficult to change.

3.8 Female to male transmission

In section 2.5, it is shown that only women have HIV infection in 18 percent of the all sero-discordant couples in India. Though this figure is lower compared to male sero-discordance, epidemiologically, the number of couples where only women are infected is considerable. Female sero-discordance is reported in approximately 0.16 million couples in India. These figures raise several questions that need to be answered in order to understand the dynamics of HIV transmission from women to men: Who are these women and how are they getting infected with HIV while their husbands remain uninfected? What are the routes of HIV transmission in such women? What factors contribute to further HIV transmission to their spouses and steady sexual partners? Evidence from the literature shows that a multitude of factors influence how women are infected with HIV by their husbands. There is, however, little research on HIV transmission to men from their wives. Data are available in India only for female sex workers and wives left behind by migrants. It is possible that in some cases women are infected through infected syringes and by blood transfusions. Scant literature on these issues has limited the understanding on factors associated with female to male HIV transmission. Further research is clearly needed to understand the characteristics of the female sero-discordance in India. Some data on this issue is, however, presented in the sections below:

3.8.1 Non-use of condoms by female sex workers with regular partners is a contributing factor for infection from women to men (Saggurti et.al., 2008; Dandona et.al., 2005b)

A conservative estimate suggests that at least 40 percent of female sex workers in India are currently married, though it is not clear whether their identities as sex workers are known to their husbands. In addition, in 20 percent of cases, female sex workers have regular steady sexual relationships with men (Saggurti et.al, 2008). In a study in 13 districts of Andhra Pradesh among 6,648 female sex workers, it was found that approximately 42 percent had not used condoms with their clients and regular sex partners during the last sexual act. It is possible that the regular sex partners of female sex workers are not necessarily monogamous, and this contributed to the spread of HIV (Dandona et. al.2005b). Condom use by female sex workers with their married partners and non-paying partners is almost negligible in India (Population Council, 2008).

3.8.2 Do women have risky sexual behaviour?

It is not only men, but women as well, who indulge in extramarital sex. A study of 109 married women (who are not sex workers) in a village in Gujarat documented



how women who engage in extramarital sex have greater authority and a higher status in their families. Their extramarital sexual activities enabled them to become economically independent. In a large majority of such cases, the husbands were not gainfully employed. (Sharma et. al. 1998). This study also recorded a high prevalence of reproductive health problems among women.

Data from the National Family Health Survey suggests that 39 percent of all HIV-infected women have uninfected husbands. Further analysis of these data by migration status show that not only are the migrant men at risk for HIV, but their partners are also at increased risk for infection (Saggurti et. al., unpublished document). These results are consistent with research in African countries (Serwadda et. al. 1995; Lurie et. al., 2003) that shows that in a significant proportion of discordant couples only the female partner is HIV infected. More research is, however, needed in this area to understand the sexual networks of women who are left behind in the villages when their husbands migrate to the cities—as well as the sexual dynamics of married women who engage in sex work. Research is also needed to examine whether or not infected syringes are a common route for HIV transmission among monogamous married women in India.



4. INDIA'S NATIONAL RESPONSE FOR THE PREVENTION OF HIV INFECTION IN INTIMATE PARTNER RELATIONSHIPS

The National AIDS Control Organisation coordinates the government's overall HIV response. The first phase of the programme was initiated in 1992. The second phase started in 1999. During this phase, the programme had five components which sought to contribute to primary, secondary and tertiary prevention of HIV and AIDS. A major component of NACP-2 was reaching out to the populations who are marginalised and most vulnerable to HIV and other STIs. The objective of that phase was preventing STIs, including HIV, through specific targeted interventions.

The third phase of the programme, NACP-3, started in 2006. The NACP-3 document specified that an increasing proportion of women were getting infected with HIV—mostly—from their regular intimate sex partners. It called for appropriate community outreach interventions to cover not only the most at risk population groups but also their regular sex partners. The programme aims to: (i) Reduce the rate of growth of HIV infection among women and girls and mitigate its impact among the infected and the affected; and (ii) Increase access of women and girls (including widows of positive men, survivors of trafficking and violence, partners/ spouses of migrant and mobile population/long-distance truckers, single women etc.) to accurate and comprehensive information related to HIV prevention.

Recognising the risk of HIV transmission from groups such as IDUs, MSM, truckers and migrants to their regular partners, the programme has delineated the following strategies for HIV prevention:

- In the case of the trucker population, a partnership should be forged between the five major players led by the National Highways Authority of India, social marketing organisations, truckers' associations, and NGOs to work on specific interventions targeting spouses of truckers.
- To prevent the potential threat of HIV infection from male migrants to their wives, interventions should target not only migrant men but also their regular female partners.

Since 2006, a few undocumented and two evidence based programmes focused



on HIV prevention in intimate partner relationships have been implemented by local NGOs. One such project is the community based pilot study called "RISHTA (Research and Intervention on Sexual Health: Theory to Action)". The RISHTA project aimed at reducing HIV/STIs in married men in three large slum communities of Mumbai with a focus on male sexual health. The intervention under the RISHTA project included counselling, education by a variety of methods involving local medical practitioners in diagnosing and treating STIs and counselling men against "going out for sex". The local AYUSH practitioners were central in ensuring the success of this initiative since men with STI symptoms approached them first with the complaint of "*gupt rog*" (secret illnesses, often referred to as sexual illnesses). The project worked with both allopathic as well as non-allopathic (AYUSH) practitioners to improve the quality of their treatment and to generate awareness among men and women of STIs and their connection with HIV. The preliminary findings and detailed description of this project have been published in the American Journal of Community Psychology. The first phase of the RISHTA project was undertaken during 2001 to 2007. It was implemented by the International Institute for Population Sciences (IIPS) in collaboration with University of Connecticut, the Population Council and several other community-based organisations.

Another project that focused on the prevention of HIV transmission to intimate partners of men who have sex with men was implemented by the Family Planning Association of India (FPAI) in Mumbai in collaboration with Humsafar Trust. The final results of this project are not yet available. Significant efforts have, however, been made for preventing HIV transmission from MSM populations to their intimate sexual partners.

Barring these, evidence-based programmes on HIV prevention in intimate partner relationships in the Indian context are limited. Furthermore, while most HIV prevention programmes in the country are urban, the epidemic is slowly making inroads to rural areas. This is largely because of the movement of migrant men and women. There is, therefore, a clear need to design and implement interventions focused on rural areas. Strategies to prevent HIV infection from men to their intimate sexual partners should be mainstreamed within several sectors such as government departments of Women and Child, Reproductive and Child Health and Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy (AYUSH). These programmes should focus on:

- Empowering women and girls to enable them to take decisions to prevent HIV.
- Promote non-judgmental and rights-based HIV responses with a commitment to social inclusion and gender parity.



- Enable and support women, girls and young people to make informed decisions regarding all aspects of their lives including sexuality and reproductive health.
- Promote behaviour change to enable men and women to prevent HIV infection and to promote male responsibility and equal partnerships between men and women (NACO, 2008).

With the recognition of the problem and its determinants, an action plan to mainstream gender and HIV within various ministries, the civil society and the private health sector has been recommended by NACO. If these efforts are strengthened and the multiple sectors work together, then there is a way to prevent HIV in intimate partner relationships.



5. CONCLUSION

This review provides the evidence that a multiple set of factors is associated with HIV transmission in intimate partner relationships in India. The data highlight that HIV infection among women within marriage is increasing and that HIV infection is now reaching rural areas. A large majority of the infections among women are not because of their own sexual behaviours but because they are partners of men who belong to the most-at-risk population groups, i.e. clients of sex workers, MSM and IDUs.

Growing evidence from studies underscores the high rates of intimate partner violence (Bhuiya et. al., 2003; Naved et. al., 2006; Koenig et. al., 2003; Koenig et. al., 2006; Krishnan, 2006; Kumar et. al., 2005) and the impact of such violence on HIV infection in Indian women (Silverman et. al., 2008; Decker et. al., 2009). Studies also indicate that elevated rates of unsafe sex (eg. extramarital sex, multiple sex partners, non-use or inconsistent condom use, and forced unprotected sex) are significantly higher among abusive men than among non-abusive men (Martin et. al., 1999; Schensul et. al., 2006). Other factors associated with HIV in intimate partner relationships include: lack of economic rights of women (UNDP, NACO, NCAER, 2006; Panda and Agarwal, 2005); early marriage and early initiation into sex (Raj et. al., 2009; Santhya and Jejeebhoy, 2007); extramarital behaviours of married men (Schensul et. al., 2006); low perception of HIV risk due to socio-cultural and gender norms (George A, 1998; Sudha T. et. al. 2007; Chatterjee and Hosain, 2006); heavy alcohol use by men (Chaturvedi et.al., 2006); migration of men (Saggurti et. al., 2008); lack of communication between partners (Sivaram et. al.2006; Schensul et. al., 2006); non-disclosure of HIV status to the partner (Kalavathy and Vijayasankar, 2000; Taraphdar et. al. 2007); sexually transmitted infections among women (Rodrigues et. al. 1995; Reynolds et. al. 2006); and biological vulnerability of women to HIV (UNAIDS, 1998a).

Literature review on HIV transmission in intimate partner relationships has pointed out certain data gaps and highlighted several programmatic implications.

5.1 Data gaps and research priorities

Research on disclosure issues within sero-discordant couples

The data highlight that there is a large cohort of sero-discordant couples in India many of whom may not know their HIV status. Research suggests that only six percent of all sero-discordant couples currently use condoms, and more often condoms are used to prevent pregnancy rather than infection. The most common reason for not using condoms even when one partner has tested HIV-positive is apprehension related to mistrust and lack of confidence (UNDP, 2006). This results in non-disclosure of HIV status to the partner. The experiences of counsellors at Integrated Counselling and Testing Centres (ICTCs) suggest that infected



individuals fear stigma and that they are unwilling to initiate condom use with their wives or suggest abstinence due to fear of losing trust. On the other hand, recently married couples are under immense societal pressure to produce children. While counselling at ICTCs emphasises the need for partner notification, whether or not the partner is notified depends on the willingness of the infected individual to do so. More research is needed to unravel the processes of decision-making around disclosure of HIV status in the Indian context. More research is needed to understand specifically the barriers to disclosing HIV status to the wife, children and the family. Research is also needed to better understand the determinants of seeking voluntary HIV tests by women as well as by men.

Research to understand the social and sexual lives of women who are partners of migrant men

The data on sero-discordance indicates that in the case of nearly one-fifth of the discordant couples, the women are HIV-positive. This finding contradicts the long-standing assumption that the primary direction of HIV transmission is from male to female, i.e. first men become infected and then they infect their wives/intimate sexual partners. The specific circumstances which expose women to HIV, particularly in female sero-discordant couples, need further investigation. Women could be infected by infected syringes and through blood transfusion. However, little is known about the circumstances under which women form relationships with men other than their husbands and the manner by which these relationships increase their risk for HIV infection. Research is also needed to understand the complex social and sexual lives of women—both for women in urban areas as well as for those who are left behind in the villages when their husbands migrate to cities. Understanding these dynamics could help in designing new approaches for preventing HIV infection in women.

Research to understand the extent to which migration bridges the epidemic between urban and rural areas

Recognising the risk imposed by IDUs, MSM, truckers and migrants for HIV transmission to their regular sexual partners, NACP-3 has recommended the need to reach out to their regular partners and spouses to reduce HIV transmission. Women impacted by migration include those who themselves migrate as well as those whose partners migrate. Since these women are vulnerable to sexual abuse and exposure to HIV, they need to be targeted specifically. Research is also needed to understand the extent to which HIV is transmitted from migrant men to their wives both in the cities where they migrate to as well as in the rural areas which they migrate from.

5.2 Programme implications

From the programmatic perspective, interventions need to be designed and implemented through feasible entry-points. There is a need to identify sero-



discordant couples and women at risk for HIV. Where possible, interventions should address couples as a social unit and not just focus on one partner. Till date, HIV prevention interventions, including those for most at risk population groups who have steady sexual partners, have been primarily aimed at individuals who are encouraged to use condoms. Specific interventions designed to address situations in which one partner is infected are needed to protect the uninfected partner who is at high risk of infection. Though the guidelines for targeted interventions under NACP-3 emphasise the need for targeting regular sexual partners of most at risk populations particularly IDUs, migrant workers and truckers; evidence on best practices is scarce. The recommendations of this report draw attention to the need for operations research to provide the evidence for designing appropriate interventions for preventing HIV infection in intimate partner relationships.

The following strategies could be employed:

1. Strengthen linkages and integrate services provided by the National AIDS Control Organisation and the Reproductive and Child Health Programme

Possible entry points for integrating these services are:

- Widen the scope of reproductive health programmes to include sexual health needs of men.
- Promote the condom as a method for preventing both HIV and pregnancy through ongoing reproductive health programmes.
- Institutionalise HIV prevention efforts within reproductive health services through primary health centres in rural areas.
- Initiate services for screening gender-based violence within both reproductive health and HIV prevention programmes. Screening programmes could be conducted at MCH clinics, PPTCT, ICTC and ART centres.
- Promote life skills education programmes for girls and boys to enable them to make appropriate reproductive health choices (E.g. saying “no” to sex in risky situations).

2. Provide special services to address the needs of intimate sexual partners at HIV testing and care facilities

The following activities are recommended:

- Strengthen efforts to improve partner notification and provide couple counselling at ICTC, PPTCT and ART centres.
- Provide education to reduce HIV risk in sero-discordant couples.
- Encourage periodic testing of uninfected partners of sero-discordant couples.
- Initiate public education campaigns to encourage voluntary HIV testing.

3. Identify, adapt and upscale interventions to reach regular sexual partners of MSM, IDUs and clients of sex workers to prevent the transmission of HIV infection



The following activities are recommended:

- Identify structural entry-points at the community level to reach individuals at high-risk for HIV through focused targeted interventions.
- Encourage public-private partnerships and engaging with the private sector for providing STI treatment and care.
- Strengthen existing targeted intervention efforts to ensure higher coverage of most-at-risk populations and their partners.
- Upscale successful initiatives designed to address male sexual health for the prevention of HIV/STIs within marriage (Eg. the RISHTA Project) as well as to re-conceptualise masculinity and sexual identity to promote gender equality and to prevent gender-based violence and HIV (Eg. the Population Council's *Yaari Dosti* Project)

4. Strengthen initiatives for mainstreaming gender and HIV concerns within different government ministries (Ministries of Education, Home Affairs, AYUSH, Women and Child Development)

Addressing HIV prevention in intimate partner relationships needs multi-sectoral and multi-level involvement of the government, civil society organisations and international agencies. The challenge is to develop linkages among various government ministries as well as between the latter and non-government organisations including the private sector so that they can work in partnership to design and implement innovative strategies for the prevention of HIV in intimate partner relationships.



REFERENCES

- Apte, H., Mate, B., Athwal, S., & Trasi, R. (2001). *Ethno-pathology of white discharge, cross-sexual transmission & treatment seeking*. Paper presented at the RTI workshop: May 16-18, 2001, Institute for Population Sciences: Mumbai, India.
- Asthana S, Oostvogels R. (2001). 'The social construction of male 'homosexuality' in India: implications for HIV transmission and prevention'. *Social Science Medicine*, 52(5): 707-21.\
- Bang, R. A., Bang, M., Baitule, M., Chaudhury, Y., Sarmukaddam, S., & Tale, O. (1989). High prevalence of gynaecological diseases in rural Indian women. *Lancet*, 8629, 85-88.
- Bang, R., & Bang, A. (1994). Women's perceptions of white vaginal discharge: ethnographic data from rural Maharashtra. In J. Gittelsohn, M. E. Bentley, P. J. Pelto, M. Nag, S. Pachauri, A. D. Harrison & L. T. Landman (Eds.), *Listening to women talk about their health: issues and evidence form India*. New Delhi: Har-Anand Publications.
- Baral, S., Sifakis, F., Cleghorn, F., & Beyrer, C. (2007). Elevated risk for HIV infection among men who have sex with men in low- and middle-income countries 2000-2006: a
- Barua, A. & Kurtz, K. (2001). Reproductive health-seeking by married adolescent girls in Maharashtra, India. *Reproductive Health Matters*, 9(17), 53-62.
- Bhatia, J., & Cleeland, J. (1995). Self-reported symptoms of gynecological morbidity and their treatment in south India. *Studies in Family Planning*, 26(4), 203-245.
- Bhattacharya, G. (2004). 'Socio-cultural and behavioural contexts of condom use in heterosexual married couples in India: challenges to the HIV prevention program'. *Health Education Behaviour*, 31(1): 101-17.
- Bloom SS, Singh KK, Suchindran c. (2005). 'Husbands' behaviour and wives' risk of sexually transmitted infections and HIV in North India'. *Extended Abstract for the Annual Meeting of the Population Association of America Philadelphia*.
- Campbell, J.C., D. Webster, J. Koziol-McLain, C. Block, D. Campbell, M.A. Curry, et. al.2003. Risk factors for femicide in abusive relationships: Results from a multisite case-control study. *American Journal of Public Health* 93(7): 1089-1097.
- Chandra PS, Deepthivarma S, Manjula V. (2003). 'Disclosure of HIV infection in south India: patterns, reasons and reactions'. *AIDS CARE*, 15(2): 207-15.
- Chandrasekaran P, Dallabetta G, Loo V, Rao S, Gayle H, Alexander A. Containing HIV/AIDS in India: the unfinished agenda. *Lancet Infectious Diseases* 2005, 6(8):508-21.



- Chatterjee, N and Hosain, G.M. (2006). 'Perceptions of risk and behaviour change for prevention of HIV among married women in Mumbai, India'. *Journal of Health Population Nutrition*, 24(1): 81-8
- Chaturvedi S, Singh Z, Banerjee A, Khera A, Joshi RK, Dhruvajyoti D. 2006. Sexual Behaviour Among Long Distance Truck Drivers. *Indian Journal of Community Medicine*, 31, 3: 153 – 156.
- Commission of AIDS in Asia. (2008). 'The State of the AIDS Epidemic in Asia' in *Redefining AIDS in Asia: Crafting an Effective Response*. New Delhi: Oxford University Press. Pp 1-3.
- Dandona L, Dandona R, Gutierrez JP, Kumar GA, McPherson S, Bertozzi SM. (2005a). 'Sex behaviour of men who have sex with men and risk of HIV in Andhra Pradesh'. *AIDS*, 19(6):611-9
- Dandona L, Dandona R, Kumar GA, Gutierrez JP, McPherson S, Bertozzi SM. (2006). 'How much attention is needed towards men who sell sex to men for HIV prevention in India?' *BMC Public Health*, 6: 31.
- Dandona R, Dandona L, Gutierrez JP, Kumar AG, McPherson S, Samuels F, Bertozzi SM. (2005b). 'High risk of HIV in non brothel based female sex workers in India'. *BMC Public Health*, 5:87
- Das, S., Yemul, V., & Deshmukh, R (1998). "Incidence and association of HIV and other STDs in 200 persons belonging to a high risk group in central Mumbai." *Venereology* 11(1): 19-23.
- Decker M, Raj A, Gupta J, Silverman, J. (2008). 'Sex Purchasing and Associations with HIV/STI among a Clinic-Based Sample of US Men'. *JAIDS*, 48(3): 355-360.
- Decker MR, Seage GR III, Hemenway D, Raj A, Niranjana S, Balaiah D, Silverman JG. Intimate partner violence functions as both a risk marker and a risk factor for women's HIV Infection: Findings from Indian husband-wife dyads. *JAIDS*. 2009 May 5. [Epub ahead of print].
- Decosas J, Kane F, Anarfi JK, Sodji KD & Wagner HU. Migration and AIDS. *Lancet* 1995, 346: 826–828.
- Department of Health and Family welfare, GoI (2005). The Principles and Evidence Base for State RCH Phase II Program Implementation Plans (PIPs)
- Desai S. (2005). 'HIV and Domestic Violence: Intersections in the Lives of Married Women in India'. *Health and Human Rights*, 8(2): 140-168.
- Entz AT, Ruffolo VP, Chinveschakitvanich V, Soskolne V & van Griensven GJP. HIV-1 prevalence, HIV-1 subtypes and risk factors among fishermen in the gulf of Thailand and the Andaman sea. *AIDS* 2000, 14: 1027–1034.
- Gangakhedkar RR, Bentley ME, Divekar AD, Gadkari D, Mehendale SM, Shepherd ME, Bollinger RC, Quinn TC. (1997). 'Spread of HIV infection in married monogamous women in India'. *JAMA*, 278(23): 2090-2



- Garg, S., Sharma, N., Bhalla, P., Sahay, R., Saha, R., Raina, U., et. al. (2002). Reproductive morbidity in an Indian urban slum: need for health action. *Sexually Transmitted Infections*, 78(1), 68-69.
- George Annie (1998). 'Differential Perspectives of Men and Women in Mumbai, India on Sexual Relations and Negotiations within Marriage'. *Reproductive Health Matters*, 6(12): 87-96.
- Gerbase, A. C., Rowley, J. T., & Mertens, T. E. (1998). Global epidemiology of sexually transmitted diseases. *Lancet*, 351(3), 2-4.
- Gittelsohn, J., Bentley, M. E., Pelto, P. J., Nag, M., Pachauri, S., Harrison, A. D., et. al. (1994). *Listening to women talk about their health. Issues and evidence from India*. New Delhi: Anand Publications.
- Go V.F., et. al. (2003). 'Crossing the threshold: engendered definitions of socially acceptable domestic violence in Chennai, India'. *Culture, Health and Sexuality*, 5(5): 393-408.
- Go V.F., Srikrishnan, A.K., Sivaram, S., Murugavel, G.K., Galai, N., Johnson, S.C., et. al. (2004). 'High HIV Prevalence and risk behaviours in men who have sex with men in Chennai, India'. *JAIDS*, 35(3): 314-319.
- Gurung H N. Social Demography and Expressions. *New Era, Kathmandu* 1998: 17-39.
- Hawkes, S. and Santhya, K.G. (2002). 'Diverse realities: sexually transmitted infections and HIV in India'. *Sexually Transmitted Infections*, 78(Suppl 1): i31-i39.
- ICRW. 2007. *Women's Property Rights as an AIDS response: emerging efforts in South Asia*: ICRW, UNDP and the Global Coalition on women and AIDS 2007.
- Institute for Human Development. Migrant Workers in India. *Migrants by Place of Birth and Age: INDIA 2001*. 2008. Also available at: http://www.migrationindia.org/census_MPbirthAge.htm
- International Institute for Population Sciences (IIPS) and Macro International. (2007). *National Family Health Survey (NFHS-3), 2005-06: India*. Mumbai: IIPS.
- Jejeebhoy, S., & Koenig, M. (2003). The social context of gynaecological morbidity: Correlates, consequences and health seeking behaviour. In S. Jejeebhoy, M. Koenig & C. Elias (Eds.), *Investigating reproductive tract infections and other gynaecological disorders* (pp. 30-81). Cambridge, United Kingdom: Cambridge University Press.
- Kalavathy MC and SK Vijayasankar (2000). 'Disclosure of HIV Status and Human Rights: the Duties and Responsibilities of Couples, Medical Professionals, Family Members and the State'. *Reproductive Health Matters*, 8(15): 148-9.
- Kambo, I. P., Dhillon, B. S., Singh, P., & Saxena, B. N. (2004). Self reported gynaecological problems from twenty three districts of India (ICMR task force study). *Indian Journal of Community Medicine*, 29(1), 8.



- Khan, S. (1994). 'Cultural contexts of sexual behaviours and identities and their impact upon HIV prevention models: an overview of South Asian men who have sex with men'. *Indian Journal of Social Work*, 55: 633-646.
- Kishor, S. and K. Johnson. 2004. *Profiling domestic violence: A multi-country study*. Calverton, Maryland: ORC Macro.
- Koenig, M., Jejeebhoy, S., Singh, S., & Sridhar, S. (1998). Investigating women's gynaecological morbidity in India: Not just another KAP survey. *Reproductive Health Matters*, 6(11), 84-95
- Lurie M, Harrison A, Wilkinson D & Abdool Karim SS. Circular migration and sexual networking in rural KwaZulu/ Natal: implications for the spread of HIV and other sexually transmitted diseases. *Health Transition Review* 1997, 7 (Suppl. 3): 15-24.
- Madhivanan P, Hernandez A, Gogate A, Stein E, Gregorich S, Setia M, Kumta S, Ekstrand M, Mathur M, Jerajani H, Lindan CP. (2005). 'Alcohol use by men is a risk factor for the acquisition of sexually transmitted infections and HIV from female sex workers in Mumbai, India'. *Sexually Transmitted Diseases*, 32(11): 685-90.
- Maitra, S. and Stephen L. Schensul (2002). 'Reflecting diversity and complexity in marital sexual relationships in a low-income community in Mumbai'. *Culture, Health and Sexuality*, 4(2): 133-151
- Mamdani, M. (1999). Managing of reproductive tract infections in women: lessons from the field. In S. Pachauri (Ed.), *Implementing a reproductive health agenda in India: the beginning*. New Delhi: Population Council.
- Mane, P, Rao Gupta G, Weiss E. (1994). 'Effective Communication between partners: AIDS and risk reduction for women'. *AIDS*, 8(Suppl 1):S325-31.
- Maniar JK. (2000). 'Health care systems in transition III. India, Part II. The current status of HIV/AIDS in India'. *Journal of Public Health Medicine*, 22(1): 33-37.
- Martin SL, Kilgallen B, Tsui AO, Maitra K, Singh KK, Kupper LL. (1999). 'Sexual behaviors and reproductive health outcomes: associations with wife abuse in India'. *JAMA*. 282(20): 1967-72.
- Mertens, T. E., Smith, G. D., Kantharaj, K., Mugrditchian, D., & Radhakrishnan, K. M. (1998). Observation of sexually transmitted disease consultations in India. *Public Health*, 112(2), 123-128
- Mishra A. Risk of sexually transmitted infections among migrant men: Findings from a survey in Delhi. *Asian and Pacific Migration Journal* 2004, 13 (1): 89-106.
- Mishra S, Swain, BK, Babu, BV. (2008). 'Sexual risk behaviour, knowledge and attitude related to HIV transmission: a study among a migrant tribal group living in the slums of Bhubaneswar City, Orissa, India'. *Journal of Public Health*, 16(5): 331-37.



- NACO, MoHFW, GOI (2007). HIV Sentinel Surveillance and HIV Estimation, 2006. Government of India: MOHFW.
- NACO. MoHFW, GOI (2006b). National Behavioural Surveillance Survey 2006. *Female Sex Workers and their Clients*. New Delhi: NACO.
- Nag, M. (1995). 'Sexual behaviour in India with risk of HIV/AIDS transmission. *Health Transition Review*, 5(Suppl.), 203-303.
- National AIDS Control Organisation, MoHFW, GOI. (2006a). *National AIDS Control Programme Phase III (2006-2011) Strategy and Implementation Plan*. New Delhi: NACO.
- National AIDS Control Organization (2004) . *Surveillance for AIDS Cases in India as Reported to NACO as on 29th February 2004*. 2004. <http://www.naco.nic.in/indianscene/overv.htm>.
- National Interim Summary Report – India (2007). Integrated Behavioural and Biological Assessment (IBBA), Round 1 (2005-2007). *Indian Council of Medical Research & Family Health International*
- Nepal B. Population Mobility and Spread of HIV Across the Indo-Nepal Border. *Journal of Health, Population and Nutrition* 2007, 25(3): 267-277.
- Newmann S, Sarin P, Kumarasamy N, Amalraj E, Rogers M, Madhivanan P, Flanigan T, Cu-Uvin S, McGarvey S, Mayer K, Solomon S. (2000). 'Marriage, monogamy and HIV: a profile of HIV-infected women in south India'. *International Journal of STD and AIDS*, 11(4): 250-3.
- Oomman, N. (1996). *Poverty and pathology: comparing rural Rajasthani women's ethnomedical models with biomedical models of reproductive morbidity: implications for women's health in India*. Ann Arbor, MI: UMI Dissertation Services.
- Oomman, N. (2000). A decade of research on reproductive tract infections and other gynaecological morbidity in India: What we know and what we don't know. In R. Ramasubban & S. J. Jejeebhoy (Eds.), *Women's reproductive health in India* (pp. 236-271). New Delhi: Rawat Publications.
- PAHO. 2002. The UNGASS, Gender and Women's Vulnerability to HIV/AIDS in Latin America and Caribbean. Washington: Pan-American Health Organisation. Regional office of the World Health Organisation.
- Panda P and B. Agarwal. 2005. Marital Violence, Human Development and Women's Property Status in India. *World Development*. 33(5): 823-850.
- Panda P, Gupta J, Bulankulame I, Bhatia N, Chakraborty S and Duvvury N. 2006. Property Ownership & Inheritance Rights of Women for Social Protection – The South Asia Experience: Synthesis Report of Three Studies. Washington, DC: International Center for Research on Women.
- Panda S, Kumar MS, Lokabiraman S, Jayashree K, Satagopan MC, Solomon S, Rao



- UA, Rangaiyan G, Flessenkaemper S, Grosskurth H, Gupte MD. (2005). 'Risk factors for HIV infection in injection drug users and evidence for onward transmission of HIV to their sexual partners in Chennai, India. *JAIDS*, 39(1): 9-15.
- Panda S, Kumar S, Saravanamurthy PS, Mahalingam P, Vijayalakshmi A, et. al. (2007). 'Sexually Transmitted Infections and Sexual Practices in Injection Drug Users and their Regular sex Partners in Chennai, India'. *Sexually Transmitted Diseases*, 34(4): 250-253.
- Population Council. 2008. Patterns of Mobility and HIV risk among female sex workers: Andhra Pradesh, Maharashtra, Karnataka, Tamil Nadu. New Delhi: Population Council.
- Poudel KC, Okumura J, Sherchand JB, Jimba M, Murakami I, Wakai S. Mumbai disease in far western Nepal: HIV infection and syphilis among male migrant-returnees and non-migrants. *Tropical Medicine and International Health* 2003, 8 (10): 933-39.
- Prasad, J. H. Abraham, S., Kurz, K. M., George, V., Lalitha, M.K., John R., Jayapaul, M. N. R, Shetty, N. & Joseph, A. (2005). Reproductive tract infections among young married women in Tamil Nadu, India. *International Family Planning Perspectives*, 31(2), 73-82.
- Prasad, J. H., George, V., Lalitha, M. K., Jayapaul, M. N. R., Abraham, S., Shetty, N., et. al. (1999). *Prevalence of reproductive tract infections among adolescents in Tamil Nadu*. Unpublished manuscript.
- Raj A, Niranjan Saggurti, Donta Balaiah, Jay G.Silverman. "Prevalence of child marriage and its impact on the fertility and fertility control behaviors of young women in india." *Lancet*, Published online: March 10, 2009.
- Rao, A., M. Nag, K. Mishra and A. Dey. Sexual behavior pattern of truck drivers and their helpers in relation to female sex workers. *Indian Journal of Social Work* 1994, 55 (4): 603-615.
- Rao, K.S., R.D. Pilli, A.S. Rao and P.S. Chalam. Sexual lifestyle of long distance lorry drivers in India: questionnaire survey. *British Medical Journal* 1999, 318:162-163.
- Reynolds SJ, Risbud AR, Shepherd ME, Rompalo AM, Ghate MV, Godbole SV, Joshi SN, Divekar AD, Gangakhedkar RR, Bollinger RC, Mehendale SM. (2006). 'High rates of syphilis among STI patients are contributing to the spread of HIV-1 in India'. *Sexually Transmitted Infections*, 82(2): 121-6.
- Rodrigues JJ, Mehendale SM, Shepherd ME, Divekar AD, Gangakhedkar RR, Quinn TC, Paranjape RS, Risbud AR, Brookmeyer RS, Gadkari DA, et. al. (1995). 'Risk factors for HIV infection in people attending clinics for sexually transmitted diseases in India'. *British Medical Journal*, 311: 283-6.
- Saggurti N, Stephen L.Schensul, Ravi K.Verma. "Migration, mobility and sexual



- risk behaviour in Mumbai, India: mobile men with non-residential wife show increased risk." *AIDS and Behaviour*. Published online: 25 April, 2009.
- Saggurti, N. et. al. (2008). 'HIV risk behaviours among contracted and non contracted male migrant workers in India: Potential role of labour contractors and contractual systems in HIV prevention'. *AIDS 2008; 22(suppl 5): S1-S10*.
- Saggurti, N. et. al. (2009) unpublished
- Santhya, K. G., & Dasvarma, G. L. (1998). Spousal communication on reproductive illness: a case study of rural women in southern India. In *IUSSP seminar on gender inequalities and reproductive health: changing priorities in an era of social transformation and globalization*. Brazil.
- Santhya, K.G. and Shireen J. Jejeebhoy. (2007). "Early marriage and HIV/AIDS: Risk factors among young women in India". *Economic and Political Weekly* 42(14): 1291–1297.
- Schensul SL, Mekki-Berrada A, Nastasi BK, Singh R, Bureson JA, Bojko M. (2006). 'Men's extramarital sex, marital relationships and sexual risk in urban poor communities in India'. *Journal of Urban Health*, 83(4): 614-24.
- Schensul SL, Niranjan Saggurti, Rajendra Singh, Ravi K Verma, Papiya Guha Mazumdar. Multilevel Perspectives on Community Intervention: An Example from an Indo-US HIV Prevention Project in Mumbai, India. *American Journal of Community Psychology*, 2009: 43: 277-291.
- Schneider JA, Saluja GS, Oruganti G, Dass S, Tolentino J, Laumann EO, Yeldandi V, Pitrak D. (2007). 'HIV infection dynamics in rural Andhra Pradesh south India: a sexual-network analysis exploratory study'. *AIDS Care*, 19(9):1171-6
- Serwadda D, Gray RH, Wawer MJ, Stallinger RY, Sewankambo NK, Kunde-Lule JK, et. al. (1995). 'The social dynamics of HIV transmission as reflected through discordant couples in rural Uganda'. *AIDS*, 9:745–750.
- Sharada, A. L. (1997). *RTI intervention in Bundib district: a process evaluation*. India: UNFPA.
- Sharma Archana and Marfatia Y S. (2005). 'An Epidemiological Study Of HIV Seroconcordant Vs Serodiscordant Couples (A Femal Based Study)', *Indian Journal of Sexually Transmitted Diseases*, 26(1): 11-13.
- Sharma, V., Sujay, R. and Sharma, A. (1998). 'Can married women say no to sex? Repercussions of the denial of the sexual act. *Journal of Family Welfare*, 44, 1.
- Shepherd ME, Gangakhedkar RR, Sahay S, Reynolds SJ, Ghate MV, Risbud AR, Paranjape RS, Bollinger RC, Mehendale SM. (2003). 'Incident HIV infection among men attending STD clinics in Pune, India: pathways to display and interventions to enhance equity'. *Journal of Health Population Nutrition*. 21(3): 251-63.
- Silverman, J.G., M.R. Decker, et. al. (2008). 'Intimate partner violence and HIV



- infection among married Indian women'. *JAMA*, 300(6): 703-710.
- Singh, K.K., Shelah S. Bloom and Amy Ong Tsui (1998). 'Husbands' Reproductive Health Knowledge, Attitudes, and Behaviour in Uttar Pradesh, India'. *Studies in Family Planning*, 29(4): 388-399.
- Sivaram S, Johnson S, Bentley ME, Go VF, Latkin C, Srikrishnan AK, Celentano DD, Solomon S. (2005). 'Sexual health promotion in Chennai, India: key role of communication among social networks'. *Health Promotion International*, 20(4): 327-33.
- Sivaram S., Latkin CA, Solomon S, Celentano DD (2006). 'HIV Prevention in India: Focus on Men, Alcohol Use and Social Networks'. *Harvard Health Policy Review*, 7(2): 125-134.
- Sudha T, Teja VD and Vemu Lakshmi (2007). 'HIV infection in women utilizing a major hospital in Andhra Pradesh, India'. *International Journal of Infectious Diseases*, 11(1): 63-68.
- Suryavanshi N, Ashwini Erande, Hemlata Pisal, Anita V. Shankar, Ramesh A. Bhosale, Robert C. Bollinger, Mrudula Phadke, Jayagowri Sastry. (2008). *AIDS CARE*, 20(9): 1111-1118.
- systematic review. *PLoS Med*, 4(12), e339.
- Taraphdar P, Dasgupta A, Saha B. (2007). 'Disclosure among people living with HIV/AIDS'. *Indian Journal of Community Medicine*, 32(4): 280-82.
- UNAIDS (1997). *Counseling and HIV/AIDS. UNAIDS Best Practices Collection*. Geneva: UNAIDS
- UNAIDS. 1998a. Gender and HIV/AIDS: A Technical Update. Geneva: UNAIDS.
- UNAIDS (2004). AIDS Epidemic Update, December 2004. Geneva: UNAIDS/WHO
- UNAIDS (2008). Report on the global AIDS epidemic. Geneva: UNAIDS.
- UNDP (2006). *Gender Impact of HIV and AIDS in India*. New Delhi: NACO/NCAER/UNDP
- UNIFEM (2000). *Progress of the World's Women 2000: UNIFEM Biennial Report*. New York; UNIFEM.
- United Nations. (2000). *Millenium Development Goals*. <http://www.un.org/millenniumgoals>
- UNODC (United Nations Office on Drug Control and Crime). 2002. *Drug Abuse in Pakistan: Results from the Year 2000 National Assessment*. New York: United Nations.
- Verma RK, Collumbien M. (2003). 'Wife beating and the links with poor sexual health and risk behaviour among men in urban slums in India'. *Journal of Comparative Family Studies*, 34: 61-75.
- Verma RK, Collumbien M. (2004). 'Homosexual activity among rural Indian men:



implications for HIV interventions'. *AIDS*, 18(13): 1845-7

Verma RK, Pulerwitz J, Mahendra V, Khandekar S, Barker G, Fulpagare P, Singh SK. (2006). 'Challenging and changing Gender Attitudes among Young Men in Mumbai, India'. *Reproductive Health Matters*, 14(28): 135-43.

Verma RK, Saggurti N, Das M, Rama Rao S, Jain A. Patterns and Implications of Male Migration for HIV Prevention Strategies in Andhra Pradesh. *Technical Brief from Population Council India, No.1*, 2007: March. Also available at: www.popcouncil.org/pdfs/India_TechBrief.pdf

Weiss HA, Patel V, West B, Peeling RW, Kirkwood BR, Mabey D. (2008). 'Spousal sexual violence and poverty are risk factors for sexually transmitted infections in women: a longitudinal study of women in Goa, India'. *Sexually Transmitted Infections*, 84(2): 133-9.

WHO (2003). *Integrating Gender into HIV/AIDS Programmes: A Review Paper*. Geneva: Department of Gender and Women's Health, Family and Community Health, WHO.



APPENDIX I : LIST OF EXPERTS

- Ms. Kousalya, PWN+, Chennai, India
- Mr. Manoj Pardeshi, INP+, Pune, India
- Dr. Mary E. Shepherd, Johns Hopkins University, School of Medicine, USA
- Dr. Niranjana Saggurti, Population Council, New Delhi, India
- Dr. Raj Anita, Boston University of School of Public Health, USA
- Dr. Ravi Verma, International Center for Research on Women, New Delhi, India
- Dr. R.R. Gangakhedkar, NARI, Pune, India
- Dr. Samiran Panda, SAHAI Trust, Chennai, India
- Dr. Shalini Bharat, Tata Institute of Social Sciences, Mumbai, India
- Dr. Shireen Jejeebhoy, Population Council, New Delhi, India
- Dr. Shubhada Maitra, Tata Institute of Social Sciences, Mumbai, India
- Dr. S.M. Mehendale, NARI, Pune, India
- Dr. Stephen L. Schensul, University of Connecticut School of Medicine, USA
- Dr. Suniti Solomon, YRG CARE, Chennai, India
- Dr. Silverman JG, Harvard University School of Public Health, USA



APPENDIX II: FINDINGS FROM DISCUSSION WITH HIV-POSITIVE NETWORK GROUPS

Workshop with Positive Women Network (PWN+) on Dec 2, 2008 at Vishwa Yuva Kendra, New Delhi

Background and rationale: As part of the initiative of understanding HIV transmission through marriage or intimate sexual relations in India, desk research was initiated on the subject during the third quarter of 2008.

During the study's progression—and following key initial findings—the need to discuss the study and consult with positive network representatives in India was strongly felt. This was particularly on the following:

- The use of the term 'spousal transmission' as title for the study. There were concerns raised during the *Regional Technical Meeting on Spousal Transmission* in Bangkok (6 to 8 November 2008) on the use of this term.
- To better understand the specific factors that facilitates women's risk of HIV within marriages or steady relationships.
- Their perspective on existing policies in NACP 3 on spousal transmission—including suggestions on first, policies where there must be greater focus and second, determine how policies would be amended.
- Understand the role that positive networks could play in addressing spousal transmission of HIV in policy implementation and programme.

An opportunity for achieving this presented itself at the Tenth Convention of Positive Women Network (PWN+) that was held on December 2, 2008 at Vishwa Yuva Kendra, New Delhi. It became a platform for discussion with amongst 120 HIV positive women representing the following state networks from India: Maharashtra, Andhra Pradesh, Tamil Nadu, Gujarat, Kerala, Rajasthan, Manipur and Orissa.

Proceedings at the workshop: Following a welcome address by PWN+ representative, *Alankar Malviya* (UNAIDS) highlighted the rationale for the workshop and briefly elaborated on the desk review being conducted in India on HIV transmission amongst partners or in marriage. This was followed by brief presentations by the following persons: Anandi Yuvraj (ANP+) and Niranjana Saggurti (Population Council).

Anandi Yuvraj (ANP+) commenced her presentation by quoting data cited in the report by the Commission on AIDS in Asia on the magnitude of women vulnerable to HIV. Approximately 50 million women in Asia according to the Commission are susceptible to HIV from partners who are engaged in unprotected paid sex. A population of 75 million men buys sex and form a large bridge population exposing



countless women to HIV. Ms. Yuvraj reiterated that while several interventions are focused on empowering women who are sex workers, those in the general category are relatively disregarded. They in actuality are exposed to HIV due to factors such as: socio-cultural norms and lack of control over their sexual health. Thus the initiative of developing a policy document on spousal transmission and initiating country specific desk research is pertinent and timely and an important first step.

Dr. Niranjan Saggurti (Population Council) subsequently took to the podium and presented initial epidemiological data that highlighted HIV epidemic's "feminisation". After detailing the domains for transmission from male to female as well as from female to male, the factors affecting the vulnerability of women within marriage were identified from a review of literature on the subject. Identifying data gaps, certain programmatic and policy recommendations were made.

These presentations were followed by **group work**. The structure for this exercise was thus that first, PWN+ members present would be divided into small groups. Second, the formulated questionnaire would be circulated among them and they would be assigned a time period of 60 minutes to deliberate and formulate their responses. Third, as the majority of the women were not conversant in Hindi or English, each group would be assigned an interpreter to translate the questions of the questionnaire and also present the answers or responses at the end of the 45 minutes time period.

Key Findings from the meeting and excerpts:

- It was suggested that the scope of the study must not be restricted to HIV transmission within marriages, and expanded to include HIV transmission in steady partner relationships or intimate partner relations as well. Thus the then current title of the study 'Spousal transmission of HIV' could be widened to include HIV transmission in marriage, intimate partner relationships in India.
- Women who are uneducated, married young and or are wives of migrants, truckers, IDUs, MSMs, and men who buy sex are especially vulnerable to HIV. Lack of awareness of HIV and means of preventing it—coupled with poor socioeconomic situation—prevent them from using condoms and enjoying safer sex.
- Positive women can play a big role in preventing HIV transmission in marriage or intimate sexual relations. HIV. For this, they must be included by the Government in various programmes such as counselling in health centres—and especially in planning and decision making.
- Among the existing programmes of the government, intimate partner transmission could be linked with the ICTC programme, PPTCT programme, STD management, condom promotion programme, awareness programmes in schools and TI programme could be expanded to include the partners of high risk groups



- It was suggested that there be separate Drop in Centres for women as the existing ones are accessed by men and women where privacy is lacking.

Some quotes from The Positive Women Network members:

“The minimum age of marriage should be increased to 25 years.”

“Efforts must be made by the government to educate more women and increase awareness among marginalised women. The government should also make a commitment to prevent HIV among women and life skills education must be imparted to women who are at risk for HIV.”

“Women must be empowered and made economically independent through livelihood programmes.”

“Women living with HIV must be included as Positive speakers.”

“Women at risk for HIV include those forced into marriage, cases where there is a great disparity in ages between spouses, female partners of IDUs, MSM, truck drivers and migrants, widowed women who are sexually exploited, illiterate women, women whose husbands are indulging in extramarital sex, women experiencing domestic violence and those who are socially and economically backward.”

“PWN+ and other networks can create awareness and counsel other women on prevention practices. Couples can be counselled on how to remain discordant. These networks can also promote safer sex, encourage HIV testing and help in linking testing to treatment services.”

UNAIDS is an innovative joint venture of the United Nations, bringing together the efforts and resources of the UNAIDS Secretariat and ten UN system organizations in the AIDS response. The Secretariat headquarters is in Geneva, Switzerland—with staff on the ground in more than 80 countries. The Cosponsors include UNHCR, UNICEF, WFP, UNDP, UNFPA, UNODC, ILO, UNESCO, WHO and the World Bank. Contributing to achieving global commitments to Universal Access to comprehensive interventions for HIV prevention, treatment, care and support is the number one priority for UNAIDS. Visit the UNAIDS website at www.unaids.org.



UNAIDS
JOINT UNITED NATIONS PROGRAMME ON HIV/AIDS

UNHCR
UNICEF
WFP
UNDP
UNFPA
UNODC
ILO
UNESCO
WHO
WORLD BANK

UNAIDS India

A-2/35 Safdarjung Enclave, New Delhi-110029 (India)

Tel: +91-11-41354545, Fax: +91-11-41354534

E-mail: india@unaids.org, Web: www.unaids.org.in