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HIV and STI Prevalence, Vulnerability and Sexual Risk among Hijras and other Male-to-Female Transgender People in India

A RESEARCH SYNTHESIS AND META-ANALYSIS

January 2014





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A Research Synthesis and Meta-Analysis

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***Authored by:
Venkatesan Chakrapani, M.D.***

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Acknowledgments:

This review was commissioned by UNDP India and written by Dr. Venkatesan Chakrapani, M.D., Centre for Sexuality and Health Research and Policy (C-SHaRP). Part of this review was compiled as “Evidence Summary: HIV/STI Prevalence and Sexual Risk Behaviors among Hijras/Transgender Women in India” and disseminated in a national meeting on transgender people organised by NACO/UNDP on December 5, 2013, in New Delhi.

Suggested citation: Chakrapani, V. (January 2014). HIV and STI Prevalence, Vulnerability and Sexual Risk among Hijras and other Male-to-Female Transgender People in India: *A Research Synthesis and Meta-analysis*. © UNDP India: New Delhi.

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Acronyms and Abbreviations

ART – Antiretroviral Treatment
 CBO – Community-based Organisation
 FSW – Female Sex Workers
 HIV – Human Immuno-deficiency Virus
 HSV – Herpes Simplex Virus
 HCV – Hepatitis C Virus
 HBV – Hepatitis B Virus
 IPC – Indian Penal Code
 IBBA – Integrated Bio-Behavioral Assessment
 MDG – Millennium Development Goals
 MSM – Men who have Sex with Men
 MtF – Male-to-Female
 NGO – Nongovernmental Organisation
 NACO – National AIDS Control Organisation
 NACP – National AIDS Control Programme
 RPR – Rapid Plasma Reagin
 SRS – Sex Reassignment Surgery
 STIs – Sexually Transmitted Infections
 TG – Transgender
 TGWB – Transgender Welfare Board
 TI – Targeted [HIV] Intervention
 TPHA - Treponema Pallidum Haemagglutination Assay

Executive Summary

Background and objectives:

In the current fourth phase of National AIDS Control Programme (NACP-IV), Department of AIDS Control is planning to scale up HIV prevention interventions among hijras/TG people. The aim of this research synthesis was to summarise the current information on the prevalence of HIV and sexually transmitted infections (STIs), and the extent and contexts behind sexual risk behaviours among MtF transgender populations. This synthesis is expected to inform current and future actions to address the HIV/STI-related health needs of MtF transgender populations, and contribute to fine-tuning HIV programme and research agenda.

Methodology:

A systematic literature search was conducted in academic electronic databases (such as PsychINFO, PubMed and Web of Science) and studies that met pre-determined criteria were included. Relevant grey literature, especially government reports, were included as well. Meta-analyses were conducted on studies that assessed HIV and STI prevalence, and condom use among MtF transgender people in between Jan 1, 2000, and Nov 30, 2013. Subgroup analyses were performed using mixed effects models (random effects within subgroups and fixed effects across subgroups). For meta-analysis, Comprehensive Meta-Analysis software was used.

Findings:

MtF transgender people have disproportionately higher HIV/STI burden. Meta-analysis indicated that HIV and STI prevalence among MtF transgender people differed according to the setting of recruitment (i.e., clinical or community-based sample). The summary prevalence of HIV among those recruited from STI clinics was 39.6% (95% CI: 27.5–53.2) and from 'hotspots' was 12.6% (95% CI: 8.5–18.4). Similarly, the summary prevalence of active syphilis among those recruited from STI clinics was 8.5% (95% CI: 2.8–22.9) and from 'hotspots' was 5.9% (95% CI: 2.0–16.2). The combined prevalence of inconsistent condom use among MtF transgender people with different types of male partners were: with male regular partners: 55.7% (95% CI: 49.7–61.6); with male paying partners: 36.2% (95% CI: 26.9–46.7); and with male casual partners: 59.6% (95% CI: 36.1–79.4). Vulnerability to HIV/STIs among MtF transgender people is not only due to individual level risk behaviors (such as condom and alcohol use), but also due to interconnected factors beyond individual level – institutional level (stigma and discrimination in health care settings), hijra/transgender community level (peers norms on condom use and HIV testing, discrimination of HIV-positive people) and social-structural level (societal negative attitude and criminal laws against adult consensual same-sex relations).

Implications:

- Multi-level interventions (including community and structural level interventions) to decrease HIV vulnerability of MtF transgender people need to be scaled up.
- Further studies are needed:
 - to systematically follow the trends in STI/HIV prevalence among hijras/TG people in different parts of India (to assist in initiating/evaluating HIV interventions for hijras/TG).
 - to help design subgroup-specific intervention components to handle the unique constraints faced by different subgroups of MtF transgender people (including HIV-positive hijras/TG) in practicing safer sex and accessing HIV prevention, treatment and care services.
 - to help design and evaluate HIV/STI interventions beyond the individual level: i.e., family, hijra/TG community, and structural levels.
 - to systematically evaluate the effectiveness of different models and subcomponents of HIV prevention interventions for MtF transgender people.

1. Background and Aim of the Research Synthesis

India has a concentrated HIV epidemic – with HIV concentrated among certain marginalized populations such as men who have sex with men, male-to-female (MtF) transgender people, injecting drug users and female sex workers. Only in the third phase of the National AIDS Control Programme (NACP-III: 2006/07-12)¹, the Department of AIDS Control (DAC) explicitly mentioned hijras and other MtF transgender people as an at-risk group for HIV. The current national average HIV prevalence among MtF transgender people is estimated at 8.8%^{2,3}, more than 20 times the general population's average HIV prevalence (0.4%)².

In the current fourth phase of NACP (2013-17), DAC is planning to scale up HIV prevention interventions among hijras/TG people. To provide a compendium of strategic information to inform this planning process, the **aim of this research synthesis** was to summarise the current information on the prevalence of HIV and sexually transmitted infections (STIs), and the extent and contexts behind sexual risk behaviours among MtF transgender populations.

The main target audiences of this research synthesis are policymakers and programme managers, although this review might be useful for researchers too to understand the knowledge gaps and to develop research agenda to fill those gaps. This synthesis is expected to inform current and future action to address the HIV/STI-related health needs of MtF transgender populations, and contribute to fine-tuning HIV programme and research agenda.

2. Typology: Hijras and other male-to-female transgender populations^a

India has centuries-old histories of existence of gender-variant males. For example, *Kama Sutra*, an ancient text, vividly describes the sexual life of people with 'third nature' (*Tritiya Prakriti*)^b. Even now, India has people with a wide range of transgender-related identities, cultures, and experiences - including Hijras or Kinnars, Aravanis/Thirunangai, Jogtas/Jogappas/Jogti hijra, and Shiv-Shakthis (See Table 1). Often these people have been part of the broader culture and treated with great respect, at least in the past, although some are accorded particular respect even now.

In 2010, in a national consultation on hijras/transgender people organized by UNDP in New Delhi, consensus definitions of hijras and transgender people were drafted (See Box 1). Although, hijras could be considered to come under the broader umbrella term of '(male-to-female) transgender people', as some of the hijra activists had a strong opinion that hijras need to be defined separately due to their distinct subculture and history, separate definitions for hijras and transgender people were proposed in that consultation.

^a This section is primarily adapted with permission from: Chakrapani, V. (2010). Hijras/transgender women in India: HIV, human rights and social exclusion. Issue brief. © United Nations Development Programme (UNDP) – India: New Delhi.

http://www.undp.org/content/dam/india/docs/hijras_transgender_in_india_hiv_human_rights_and_social_exclusion.pdf

^b Danielou, A. (1994). *The Complete Kama Sutra*. The first unabridged modern translation of the classic Indian text by Vatsyayana. Thomson Press (India) Ltd: Mumbai.

Box 1. Consensus definitions – National consultation on hijras/transgender people, New Delhi, 2010, organized by UNDP India

Hijras: “Individuals [male-born] who voluntarily seek initiation into the hijra community, whose traditional profession is *badhai*^c but due to the prevailing socioeconomic and cultural conditions, a significant proportion of them are into begging and sex work for survival. These individuals live in accordance to the community norms, customs and rituals which may vary from region to region [in India].”

Transgender people: “Transgender persons usually live or prefer to live in the gender role different to the one in which they are assigned at birth. The preferred gender role may or may not be related to their sexual preferences. It is an umbrella term that includes transsexuals, cross-dressers, intersexed persons, and gender-variant persons. Transgender people may or may not have undergone gender transition-related surgery or may or may not be on hormonal therapy related to their gender identity. Transgender people can be ‘male-to-female’ (MtF) or ‘female-to-male’ (FtM), and sometimes referred to as ‘transgender woman / trans woman’ and ‘transgender man / trans man’, respectively.”

Table 1. Indigenous gender-based identities and labels used by male-to-female (MtF) transgender people in India

State/Region	Identity / Label	Comments
Northern India	Hijra, Kinnar	Hijra ^d is a commonly known and used term. Kinnar is another recently reclaimed term which has been used as a synonym for ‘hijra’.
Maharashtra	Jogta or Jogappa, Jogti hijra	Jogta, Jogappa and Jogti are also the terms used by male or female temple priests (“servants of God”) who need not necessarily be transgender persons.
Karnataka	Hijra, Jogappa, Jogathi, Kothi	Kothi identity in Karnataka, like in some other states, is present among both feminine same-sex attracted males and MtF transgender people. ^e
Tamil Nadu	Thirunangai, Aravani	Both terms are commonly used; the former is currently preferred in Tamil Nadu.
Andhra Pradesh	Shiv-Shakti, Hijra	Shiv-Shakthis too are usually associated with Temples, and supposed to foretell future.
North-east India	‘Transgender’ and emerging trans identities	Not much is known about trans communities in Northeast India. In some states like Manipur, labels ‘A’ and ‘B’ are used to denote masculine and feminine same-sex attracted males, the latter including MtF transgender people.

^c Singing and dancing at birth and marriage functions, and receiving gifts by offering blessings to new-born babies and wedding couples.

^d Among the hijra communities, the term ‘hijra’ itself is not seen as a derogatory term, but if it is said in a negative tone by others (non-hijra people), it is then considered offensive.

^e Note: In current usage, in the ‘HIV field’, kothi identity is usually considered to come under the umbrella term of ‘men who have sex with men’.

3. Methodology

Literature search

Published and unpublished literature on HIV-related literature among MtF transgender people in India were systematically searched through multiple data sources: peer-reviewed academic articles; data and reports from the Indian government on HIV sentinel serosurveillance (HSS); reports of Integrated Behavioural and Biological Assessment (IBBA round 1 and 2) of Avahan programme; and data and reports from non-governmental organisations and community-based organisations.

Peer-reviewed journals were searched in academic databases such as Medline/PubMed^f, PsychINFO, Web of Science, Cochrane systematic review and Sociological abstracts. All the articles published until November 2013 were included. Furthermore, specific online searches were conducted in relevant international and Indian journal online archives^g. General search engines such as Google and Google Scholar were also used. The reference lists in the eligible articles/reports were also examined; this process was repeated until no new relevant references were identified. Searches were limited to India and English language.

Inclusion and exclusion criteria

Criteria for inclusion in this review were that the article or report should significantly focus on any or all of these aspects in relation to MtF transgender people namely: 1) prevalence of HIV and/or STIs; 2) HIV-related individual level risk behaviors; 3) structural and contextual factors contributing to HIV vulnerability, and 4) access to and use of HIV/STI prevention and treatment services – especially from public healthcare settings.

For the review, exclusion criteria included: newspaper articles, letters to editor in peer-reviewed journals, articles not in the English language, and articles not related to the above-mentioned focus topics. Relevant conference abstracts were cited as part of the literature, but systematic data extraction from those conference abstracts was not conducted.

For meta-analysis of HIV and STI prevalence, only articles that reported primary data on HIV/STI prevalence among MtF transgender people were included.

Data extraction and Assessment of study quality

For this review, quality assessment was conducted primarily for studies included in the meta-analysis of the prevalence of HIV and STIs. However, systematic data extraction was conducted for all relevant major sources. The data extracted include: publication details – authors and year of publication, data collection period, study sites, sample size, inclusion and exclusion criteria, sampling methods, prevalence of HIV and STIs, details of sexual partners (number and type), sexual risk behaviours (especially condom use), alcohol and drug use.

Statistical analysis

Meta-analysis of the prevalence of HIV and STIs were conducted using the Comprehensive Meta-analysis software (V2.2, Biostat, Eaglewood, NJ). Stratified analyses were also conducted by study period (before 2005 vs. 2005 and afterwards), sampling methods (convenience sampling vs. time-location sampling), setting ('hotspots' vs. STI clinic). Random-effects models were used within subgroups and fixed-effects models were used to combine effect sizes of subgroups.

^f Key words used (MeSH terms for Medline and Descriptors for PsychINFO) include: HIV, AIDS, HIV prevention, HIV care, transgender, hijras, male sex workers, anal sex, risk behavior, condom, lubricant, STI, intervention, program, coverage, India.

^g AIDS, AIDS and Behavior, AIDS Care, AIDS Education and Prevention, American Journal of Public Health, International Journal of STD & AIDS, Journal of Acquired Immune Deficiency Syndromes, AIDS Patient Care and STDs, Indian Journal of Medical Research [www.ijmr.org.in], Indian Journal of Dermatology, Venereology and Leprology [www.ijdl.com], Indian Journal of Sexually Transmitted Diseases and AIDS [www.ijstd.org/]

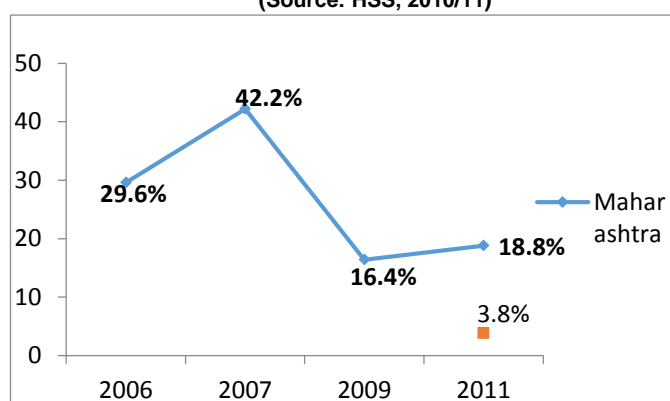
4. HIV prevalence and Trends

National HIV sentinel serosurveillance (HSS) data

In India, HSS sites for TG people were introduced only in 2005. The 2011 HSS had 3 TG-specific sites – two in Tamil Nadu and one in Maharashtra³. According to the 2011 HSS, the national mean HIV prevalence among transgender people (8.8%)³ was about 20 times greater than that among the general population, and highest among other at-risk populations (injecting drug users - 7.1%, men who have sex with men - 4.4%, and female sex workers - 2.6%). In Maharashtra, there seems to be a slight increase in HIV prevalence among TG people from 16.4% in 2009 to 18.8% in 2011 (Diagram 1).

Diagram 1. HIV prevalence among hijras/MtF TG people in Maharashtra & Tamil Nadu

(Source: HSS, 2010/11)



HIV prevalence data from Integrated Biological & Behavioral Assessment (IBBA)

In IBBA-1 (2005/07), the average HIV prevalence among hijras/TG was reported to be 18.1%⁴. In a publication⁵ that compared IBBA-1 and 2, HIV prevalence among transgender people showed a slightly decreasing trend - from 12% to 9.8%^h, and this decrease in HIV prevalence was partly attributed to HIV program exposure.

HIV prevalence data from STI clinic-based studies

In general, as expected, HIV prevalence of hijras/TG people recruited through STI clinics is higher than that among hijras/TG recruited from community settings. For example, HIV prevalence among hijras/TG visiting STI clinics from Mumbai, Pune and Chennai was 68%⁶; 45.2%⁷; and 17.5%⁸, respectively. In almost all of these studies, a 'two-test' algorithm was followed. i.e., two HIV rapid tests or two different types of ELISA test kits were used.

(Note: Meta-analysis of HIV prevalence is presented in Box 2.)

^h Although not a statistically significant difference.

Table 2. HIV prevalence among hijras and other MtF transgender people in India

Source	Year of data collection	Locations	Types of setting	Typology mentioned ⁱ	Sample size	HIV prevalence (%)
'Community-based sample' (Recruitment from intervention sites)						
National HSS (Govt. reports)						
National HSS (2009) ³	2008/09	Maharashtra (Mumbai)	'Hotspots'	Transgender	250	16.4
National HSS (2011) ³	2010/11	Maharashtra and Tamil Nadu	'Hotspots' ^j	Transgender	~748 ^k	8.8
IBBA studies (peer-reviewed journal articles)						
Brahmam et al., 2008 ⁴ (IBBA-1 data)	2005/07	Tamil Nadu, Andhra Pradesh, Maharashtra, Karnataka	'Hotspots'	Hijra and Aravani	575	18.1
Subramanian et al., 2013 ⁵	IBBA1: 2005/07	Tamil Nadu	'Hotspots'	Aravani	404	12
	IBBA2: 2009/10	Tamil Nadu	'Hotspots'	Aravani	403	9.8
STI clinic-based sample (peer-reviewed journal articles)						
Sahastrabudde et al., 2012 ⁷	1993-2002	Pune	STI clinic	Hijra	84	45.2
Setia et al., 2006 ⁶	2001	Mumbai	STI clinic	Transgender	28	68
Shinde et al., 2009 ^l	2003	Mumbai	STI clinic	Transgender in sex work	51	41
Saravanamurthy et al., 2010 ⁸	2010	Chennai	STI clinic	MtF TG	131	17.5

ⁱ These typologies may be just labels and not necessarily the self-identities of the participants

^j 'Hotspots' are sites visited by hijras and other MtF trans people to socialize with their peers and/or to meet potential male sexual partners. Also referred to as 'cruising sites', sometimes.

^k Finally achieved sample size for the Mumbai site was not clearly stated, but the intended sample size for Mumbai was 250. For Tamil Nadu, the achieved sample size was 498.

^l Shinde, S., et al. (2009). "Male sex workers: are we ignoring a risk group in Mumbai, India?" *Indian J Dermatol Venereol Leprol* 75(1): 41-46.

Box 2. Meta-analysis: HIV and active syphilis prevalence among MtF transgender people in India

Inclusion criteria for HIV prevalence studies included: peer-reviewed publications (no timeperiod was specified) and national HIV sentinel serosurveillance reports. For estimation of summary prevalence of active syphilis, only those studies in which information on active syphilis was provided were included in meta-analyses. Active syphilis was defined as high titre serological test for syphilis (VDRL or RPR) and positive confirmatory test (TPHA).

HIV prevalence

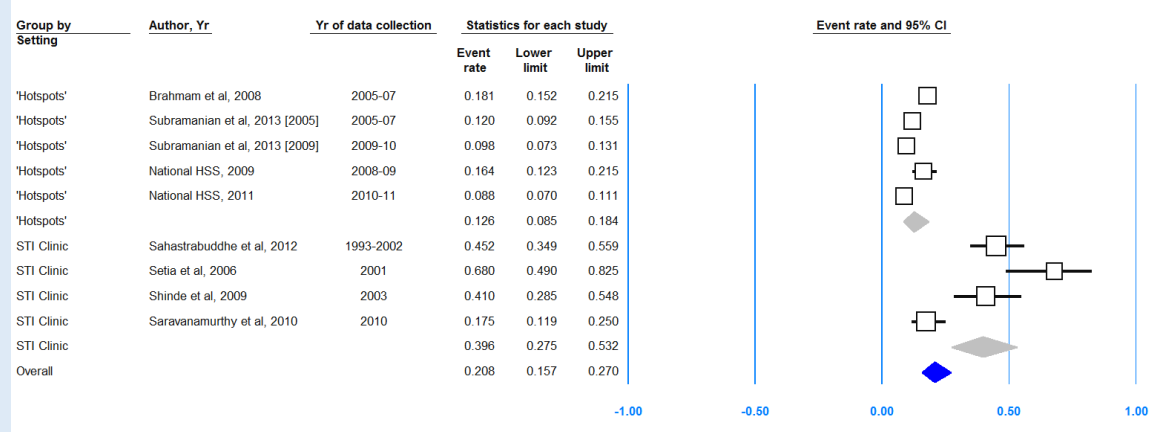
HIV prevalence varied by the setting for study recruitment. That is, prevalence of HIV among those recruited from:

STI clinics = 39.6% (95% CI: 27.5–53.2)

'Hotspots' = 12.6% (95% CI: 8.5–18.4)

An overall summary HIV prevalence (irrespective of the setting) was 20.8% (95% CI: 15.7–27.0). *Note: This is based on mixed effects model (random effects within subgroups and fixed effects across subgroups)*

Fig 1. Prevalence of HIV among MtF transgender people in India



Prevalence of active syphilis

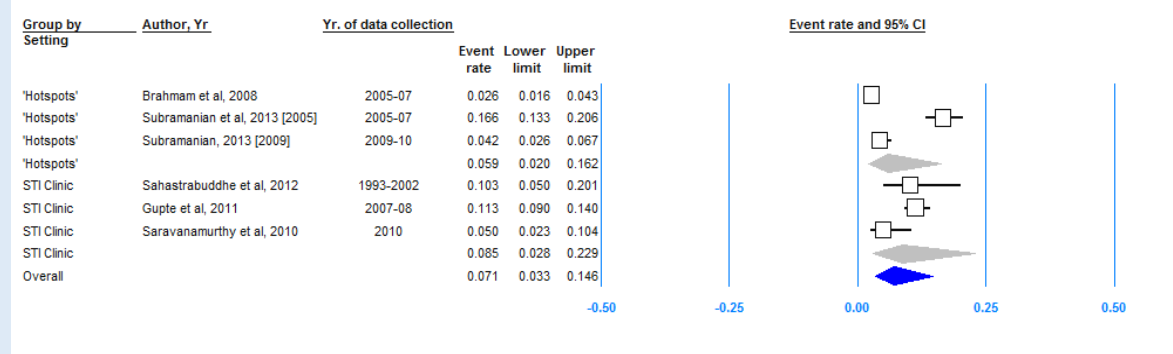
Prevalence of active syphilis varied by the setting for study recruitment. That is, prevalence of active syphilis among those recruited from:

STI clinics = 8.5% (95% CI: 2.8–22.9)

'Hotspots' = 5.9% (95% CI: 2.0–16.2)

An overall summary active syphilis prevalence (irrespective of the setting) was 7.1% (95% CI: 3.3–14.6). *Note: This is based on mixed effects model (random effects within subgroups and fixed effects across subgroups)*

Fig 2. Prevalence of active syphilis among MtF transgender people in India



5. STI prevalence^m and Trends

Syphilis

In general, syphilis seems to be the commonest bacterial STI among hijras/TG people across the country. A community-based cross-sectional study (part of IBBA-1) in South India documented a high Syphilis prevalence (13.6%) among hijras/aravani.⁴ Two STI clinic-based studies conducted in Mumbai documented a high syphilis prevalence that ranged from 11.3%⁹ (hijras/TG in sex work) to 57%⁶ (hijras, including those in sex work). In Pune, a STI clinic-based study reported lab-confirmed syphilis of 10.3%⁷ among self-identified hijras. Another STI-clinic based study from Chennai documented 8%⁸ RPR-confirmed syphilisⁿ. A steep decrease in active syphilis prevalence – from 16.6% in (2005/07) to 4.2% (2009/10), was reported among aravani in Tamil Nadu, and that decrease was supposed to be due to the impact of HIV prevention interventions.⁷ (Note: Meta-analysis of active syphilis prevalence is presented in Box 2.)

Other STIs

In general, classic ulcerative STIs or anogenital STI-related discharge have been rarely reported among TG people. In a study among aravani in Tamil Nadu, none were found to have chlamydial infection and only 1%⁸ was reported to have gonococcal infection. In contrast, viral STIs seem to be relatively more common. For example, in South India, 45.4% of hijras/aravani was reported to be positive for HSV-2, a herpes simplex virus type usually acquired through sexual route.⁴ Another study conducted among aravani in Chennai reported that 72% had at least one potentially sexually-acquired viral infection (48% tested positive for HSV-1; 29% for HSV-2; and 7.8% for Hepatitis-B).⁸

Table 3. STI prevalence among hijras and other MtF transgender people in India

Source	Data collection period	Study location	Sample size	Typology mentioned	Active syphilis Prevalence	Other STIs
Study participants recruited from 'hotspots' or 'cruising sites'						
Subramanian et al., 2013 ⁵	IBBA1: 2005/07	TN	404	Aravani/TG	16.6%	NG: 0%; CT: 0%
	IBBA2: 2009/10	TN	403	Aravani/TG	4.2%	NG: 0%; CT: 0%
Brahmam et al., 2008 ⁴	IBBA-1 data: 2005/07	TN, AP, KTK, MH	575	Hijra /Aravani	2.6%	NG: 0.3%; CT: 0% Any STI: 13.9% HSV-2: 45.4%
Study participants from STI clinics						
Sahastrabudde et al., 2012 ⁷	1993–2002	Pune	84	Hijras/TG	10.3%	Genital warts: 10.3% Genital ulcer: 15.3% Discharge: 5.4%
Gupte et al., 2011 ⁹	2007-08	Mumbai	620	TG in sex work	11.3%	
Saravanamurthy et al., 2010 ⁸	2010	Chennai	131	TG	5%	NG: 1%; CT :1% HBV: 8% HSV-2: 29% HSV-1: 48%
Setia et al., 2006 ⁶	2001	Mumbai	28	TG	- ^o	HSV-2: 71% HBV: 21%
TN: Tamil Nadu, AP: Andhra Pradesh, KTK: Karnataka, MH: Maharashtra NG = Neisseria gonorrhoeae, CT = Chlamydia trachomatis, HBV = Hepatitis B Virus, HSV = Herpes Simplex Virus RPR = Rapid Plasma Reagin Test. TPHA = Treponema Pallidum Haemagglutination Assay, a confirmatory test for Syphilis						

^m Other than HIV

ⁿ It is possible that the variations in syphilis prevalence (same site at different timeframes or different sites during the same timeframe) could be because of variations in the type of test kits and/or the testing algorithms used.

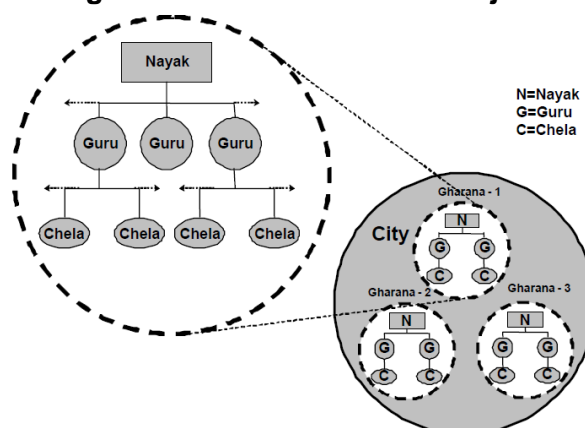
^o Only "Life-time syphilis" was provided in this article: TPHA reactive = 57%.

6. Contextual factors contributing to HIV vulnerability

Social structure of hijras and its connection with HIV prevention and care^p

In India, hijra communities are organized into 'Gharanas' (means 'houses' or 'clans'). In Mumbai, each of these *Gharanas* has a key person called *Nayak*, a senior hijra. Under each *Nayak*, there are many *Gurus* (Master or Teacher), and under each *Guru* there are many *Chelas* (Disciples). A person can be *Chela* of a particular *Guru* as well as *Guru* for some other persons (that is, have their own *Chelas*)^q. Thus, there is a complex hierarchy and 'kinship' relations among hijras (See Diagram 2). *Gharana* (also known as 'Jammat' or 'Dera') system may be different in different states. For example, in Tamil Nadu, two *nayaks* are present for each district.^r As *Chelas* see their *Gurus* as mentors/guide for several issues of importance, for the success of HIV interventions among hijras, there is a need to engage with community leaders of hijras and other indigenous transgender communities. For example, *Gurus* may facilitate or hinder access to and use of condoms, HIV testing and antiretroviral treatment^{10,11}. Two pilot interventions to sensitize hijra gurus in Mumbai^s and aravani jammat leaders in Tamil Nadu^t were conducted in 2012/13. The experiences and outcomes from these pilot projects suggest that it is important to involve hijra/transgender community leaders in HIV prevention and care interventions.

Diagram 2. Social structure of hijras^u



Sex work

Lack of education, lack of other job opportunities and lack of psychosocial support from their families¹² compel many MtF trans people (especially hijras) to enter into sex work for either survival¹³ or, sometimes, to pay for sex change operation.¹⁴ In the IBBA-1 study conducted in South Indian states, nearly two-thirds (63.5%) of hijras/aravanis reported sex work as their main source of income⁴. Similarly, in the IBBA-2 study conducted in Tamil Nadu⁵, a higher proportion of aravani participants (41.0% in 2009/10) reported being engaged in sex work when compared with the Tamil Nadu transgender participants in IBBA-1 (20.2% in 2005/07)^v. Also, the average age at which they entered into sex work was 16.5 years, which means many entered into transactional sex even before the legal age for consensual sex, which also highlights the need to reach hijra/TG legal minors through HIV and social protection programmes.

^p Adapted with permission from: Chakrapani, V, Newman, PA, Mhaprolkar, H, Kavi, AR. (2007). Sexual and Social Networks of MSM and Hijras in India: A qualitative study. The Humsafar Trust, Mumbai. http://www.humsafar.org/ResDown/RESEARCH%20HST_RALF_Report.pdf

^q The *Chelas* under one *Guru* refer to one another as '*Gurubhai*'. For a *Chela* under a particular *Guru*, the '*Gurubhai*' of the *Guru* becomes the '*KalaGuru*' (Aunt) and the '*Guru of Guru*' becomes the '*Nani-/Nana-Guru* or *Dada-Guru*'.

^r Based on Tamil Nadu *Nayaks* meeting report: A meeting of Tamil Nadu *Nayaks* organized by Tamil Nadu Aravanigal Association (THAA), with support from Tamil Nadu State AIDS Control Society.

^s Implemented by SOSVA, Mumbai, with support from UKAid TAST Innovations Fund.

^t Implemented by Association for Rural Mass India (ARM) with support from UKAid TAST Innovations Fund.

^u Source of diagram (used with permission): Chakrapani, V, Newman, PA, Mhaprolkar, H, Kavi, AR. (2007). Sexual and Social Networks of MSM and Hijras in India: A qualitative study. The Humsafar Trust, Mumbai.

^v This could be due to differences in the nature of participants recruited in these two studies.

Table 4. Barriers and facilitators to access HIV/STI related services

Source	Study on access to	Study design and methods	Year of data collection	Sample size of TG people in the study	Barriers				Facilitators
					Individual-level	Health care system-level	TG community-level	Structural-level (society and laws)	
Beattie et al., 2012²⁰	HIV testing and counselling services, and antiretroviral treatment in public hospitals	Qualitative, In-depth interviews	2008	TG=6	<ul style="list-style-type: none"> • Lack of knowledge about HIV service • Denial of HIV risk/fatalism • Fear of mental health impact of HIV-positive test result 	<ul style="list-style-type: none"> • Discrimination • Derogatory comments • Poor facilities at testing sites • Long distances • Requirement to bring identity cards and a 'buddy' or family member to register for ART 	<ul style="list-style-type: none"> • Fear of discrimination by family and neighbours if disclosure of sex work and/or HIV status 		<ul style="list-style-type: none"> • Clear understanding of the benefits of knowing one's status • Empathetic and caring staff, with a good understanding of issues of TG • Services located in NGO-run clinics • Peer educators accompanying community members to public hospitals •
Chakrapani, Newman, Shunmugam & Dubrow, 2011²¹	Free antiretroviral treatment in public hospitals	Qualitative, in-depth interviews and focus groups	2007	TG/ Aravanis = 17	<ul style="list-style-type: none"> • Lack of family support • Delays in HIV testing • Fatalism • Alcohol use • Insufficient knowledge about ART and belief in 'cure' by alternative medicine 	<ul style="list-style-type: none"> • Negative experiences with health care providers • Lack of transgender-friendly registration and admission procedures • Perceived culturally-incompetent counseling services and lack of confidentiality 	<ul style="list-style-type: none"> • Discrimination of HIV-positive TG within TG/aravani communities 	<ul style="list-style-type: none"> • Negative attitude of the general public • Criminalisation of consensual same-sex relations • Criminalisation of sex work 	

<p>Chakrapani, Shunmugam, Michael, Velayudham & Newman, 2008¹⁹</p>	<p>HIV testing and counselling services in public hospitals</p>	<p>Focus groups and key informant interviews</p>	<p>2008</p>	<p>TG = 21</p>	<ul style="list-style-type: none"> • Fear of adverse consequences if diagnosed as HIV-positive • Fear of inability to cope with a positive HIV test result • No perceived benefits of knowing the HIV status • Preference given to drug use (among IDUs) rather than HIV testing • Denial of risk and low HIV risk perception • Lack of correct knowledge about STIs/HIV 	<ul style="list-style-type: none"> • Judgemental attitude of providers • Breach of confidentiality • No consent before examination / discussing with interns • Usage of harsh language • Far located testing centres • Restricted service hours in government hospitals • Unfriendly administrative procedures, • Long waiting time for counselling & testing • Test results not provided on the same day 	<ul style="list-style-type: none"> • Lack of supportive social and peer norms for HIV testing • Fear of loss of income and discrimination from other community people • Fear of possible spread of false rumors by own community people 	<ul style="list-style-type: none"> • Presence of criminal laws against the marginalized groups • Inability to follow up with clients • Lack of effective coordination among Voluntary organizations • Geographical demarcation of areas to NGOs/CBOs working with marginalized groups • Inconsistent funding support for HIV prevention programs • Lack of media campaigns that reach out and appeal to marginalized groups 	<ul style="list-style-type: none"> • Accurate knowledge about HIV testing • Accurate risk perceptions • Non-govt. STI clinics/ testing sites -Privacy assured & Community-friendly health care providers • Funding agency policies to support HIV testing in STI clinics run by NGOs • Knowledge on Drug treatment, recovery and support • Knowing peers who are HIV positive motivates for testing
<p>Chakrapani, Mehta, Buggineni, & Barr, 2008²²</p>	<p>Sexual and reproductive health services, including STI testing/treatment</p>	<p>In-depth interviews and focus groups</p>	<p>2008</p>	<p>TG=39</p>	<ul style="list-style-type: none"> • Fear of being seen by others • Fear of being labelled by others as having STI or HIV • Perceived fear of discrimination from the health care providers 	<ul style="list-style-type: none"> • Long distance • Long waiting time • Negative attitude and discriminatory behaviour of the co-patients in the hospitals 			<ul style="list-style-type: none"> • Accompaniment by peer buddy to public hospitals • Non-discriminatory services at NGO-run STI clinics • Monetary incentives for periodic screening for STIs at selected NGO-run STI clinics

Stigma and Discrimination, and Access to STI/HIV services

Hijras/TG people face multiple and overlapping stigma/discrimination related to their gender identity, sex work status, and HIV status.^{15,16} Available evidence indicate that transgender identity stigma¹⁷ and HIV-related stigma can influence mental health as well as sexual risk among transgender people¹⁸. Also, fear of discrimination or experience of discrimination from health care providers¹⁴ have been shown to hinder access to HIV testing^{19,20}, antiretroviral treatment^{21,20} and sexual health services²² in public hospitals (See Table 4).

Migration

Migration is commonly seen among hijras/TG people, for a variety of reasons. For example, to escape from abusive family relationships¹², to find supportive hijra social system, and to earn money. Inter-state, inter-district and inter-city migration have been reported among hijra/TG people²³. A STI clinic-based study among hijras/TG in Mumbai reported that all of the study participants had migrated from other Indian states to Mumbai and most of them (93%) were living with their hijra/TG friends.⁶ In Chennai, a study⁸ documented that 69% of participants have had travelled outside the State of Tamil Nadu during their life time, and 48% of them had stayed outside Tamil Nadu for at least six months. A publication based on IBBA-1 data reported that in South India, about one-third (36.3%) had travelled out of their town in the previous year, of which 59.7% had anal sex with male partners in the destination sites.⁴ Similarly, a recent publication based on IBBA-2 reported that 40.5%⁵ of the transgender participants engaged in sex work outside their residence district. Thus, migration can contribute to spread of HIV/STIs from one geographical area to another. A pilot intervention^w among Launda dancers²⁴ (in this intervention, focus was on MtF transgender people who seasonally migrate from West Bengal to Uttar Pradesh and Bihar) demonstrated that it is possible to ensure HIV prevention services to migrant hijras/TG – both at destination and source sites.

7. HIV-related individual level risk behaviors

Number and types of male partners

Qualitative¹¹ and quantitative studies among hijras/TG people have reported all types of male partners – regular, paying, paid and casual/anonymous partners. A study among hijras/aravanis in South India (part of IBBA-1) reported the number of paying anal sex partners in the previous week as 5.6 (0 to 50)⁴ and 90% of aravanis had paying male partners in addition to regular partner.²⁵ In a STI clinic-based study from Mumbai, 39% of TG people had more than 10 male partners in the previous month.⁶ One study²⁶ reported that men who have sex with hijras were also likely to have sex with men and women as well, highlighting the interconnections between various at-risk populations.

Prevalence of anal sex with male partners

In general, anal sex practice has been widely reported among hijras/TG people although relatively less risky sexual practices such as ‘thigh sex’ (inter-femoral sex)⁸ and oral sex have also been reported. In a STI clinic-based study in Mumbai, 56% of hijras reported having engaged in more than 5 receptive anal sex acts in the previous month⁶. Similarly, a study among aravanis in Chennai reported varying levels of receptive anal sex with different types of male partners: 24% with “life partner”, 26% with casual partner, and 29% with client of sex work.⁸ Similar differences in the prevalence of type of anal sex (insertive/receptive) according to the types of male partners was reported in a study²⁷ conducted among TG/hijras living with HIV in Chennai and Mumbai: 83% had receptive anal sex with regular partner, 63% had receptive anal sex with casual partner, 3% had insertive anal sex with regular partner, and 11.6% had insertive anal sex with casual partner.

^w Implemented by PLUS-Kolkata with support from UKAid TAST Innovations Fund.

Condom use with male partners (See Table 5)

IBBA-1 and -2: Trends in condom use in last time anal sex and consistent condom use

In general, condom use was higher with male non-regular partners when compared with male regular partners. In IBBA-2, the reported condom use during last anal sex with male regular partners decreased marginally (IBBA-1: 73%, IBBA-2: 61%), although, consistent condom use with male regular partners was reported by a higher proportion (IBBA-1: 34%, IBBA-2: 47%). A publication on sexual risk of transgender people in Tamil Nadu sample of IBBA reported that consistent condom use with male casual partners increased from 18% in IBBA-1 to 51.5% in IBBA-2 (which was not statistically significant), and last time condom use declined significantly with male paying partners.

Condom use as reported in STI clinic-based studies

In general, hijras/TG people recruited from STI clinics reported relatively higher inconsistent condom use when compared with those recruited from community settings (as it is the inconsistent condom use which lead to STIs). For example, in a STI clinic-based study in Pune, two-thirds (66.7%) reported consistent condom use (timeframe not mentioned), 20% reported 'never' used condom and 13.3% reported condom use 'sometimes'.⁷ A STI clinic-based study from Mumbai reported that more than half (54%) 'rarely' used condom for anal sex.⁶ In a Chennai study, three-fourths (75%) reported consistent condom use with their male clients of sex work, but relatively lower proportion reported consistent condom use with male casual and regular partners, 59% and 43%, respectively.⁸

Alcohol use and its connection with condom use

A study from Chennai documented 68% alcohol use among aravanis in Chennai and 22% of them consumed alcohol daily.⁸ Also, that study found that alcohol use was more strongly associated with multiple casual and paid partners than with long-term partners. Also, 29% reported sex under the influence of alcohol, which was often associated with unsafe sex. A recent survey among hijras/TG from urban and rural sites in Maharashtra and Tamil Nadu reported that among those who did not use condom in the last anal sex (27%), 62% reported having consumed alcohol before sex.²⁸

Female partners and HIV risk

Some male-born transgender persons may get married to women presumably due to family pressure to get married or before realizing their transgender identity¹². However, it is possible that as gender identity is different from sexual orientation, some MtF transgender people may have bisexual orientation and engage in sex with both men and women. This being a sensitive issue for the hijra/trans communities, it has not been explored in detail*. Different studies have documented that a relatively significant proportion of hijras and other transgender people were ever married to women: South India - 23%,⁴ Pune - 8.3%⁷, and Kolkata - 12%. In a STI clinic-based study in Pune, 8.3% of hijras were married to women and 11% of hijras were reported to have had sex with both men and women⁷. Similarly, a behavioral study among MtF transgender people in West Bengal, 12%²⁹ were married to women and reported concurrent male sexual partnerships.

Condom use among HIV-positive hijras/TG people

There is limited data on sexual risk behaviors of HIV-positive hijras. In a study among HIV-positive hijras (Chennai and Mumbai), the prevalence of inconsistent condom use during receptive anal sex was 34% for male regular partners and 41% for male casual partners.¹⁷ Even though two-fifths of hijra participants in that study reported having disclosed their HIV status to their male regular partner, disclosure was not uniformly followed by safer sex, and non-disclosure did not always lead to unprotected sex.

* A similar situation existed for MSM until recently, but now there is greater openness among the sexual minority communities and HIV program people to discuss about female partners of MSM : Chakrapani V, Boyce P, Dhanikachalam D. (Sep 2011). Women partners of men who have sex with men in India. India 'MSM situation paper' series – Technical Brief 2. DFID AIDS TAST (of Futures Group International Pvt. Ltd., India) for National AIDS Control Organisation. http://strive.lshtm.ac.uk/sites/strive.lshtm.ac.uk/files/Technical%20Brief-2_WomenPartners_MSM.PDF

Table 5. Condom use patterns among hijras / MtF transgender people in India

Source	Data collection period	Locations	Sample size	Condom use during last anal sex (Type of male partner)	Data on consistent condom use (CCU) ^y (Type of male partner)	Data on inconsistent condom use (Type of male partner [MP])
Subramanian et al., 2013 ⁵	IBBA-1 data: 2005/07	Tamil Nadu	404	73% (Regular) 93.1% (Paying) 85% (Paid) 81% (Casual)	34% (Regular) 50% (Paying) 6% (Paid) 18% (Casual)	
	IBBA-2 data: 2009/10	Tamil Nadu	403	61% (Regular) 80% (Paying) 89% (Paid) 67% (Casual)	47% (Regular) 61% (Paying) 68% (Paid) 51.5% (Casual)	
Chakrapani, Samuel, Shunmugam, & Sivasubramanian. (2013) ³⁰ Chakrapani et al., 2013 (In Press) ²⁷	2012/13	Kancheepuram, Kumbakonam, Mumbai, Sangli, Delhi, Kolkata	300	32% (<i>partner type not specified</i>)	51% (Regular) 31% (Paying) 32% (Casual)	
	2006/07	Chennai and Mumbai	60 (TG/hijras living with HIV)		34% (Regular MP, receptive anal sex) 41% (Casual MP, receptive anal sex) 29% (Casual MP, insertive anal sex)	
Sahastrabuddhe et al., 2012 ⁷	1993-2002	Pune	84		66.7% (Always used condoms) 20% (Never used) 13.3% (Sometimes)	
Saravanamurthy et al., 2010 ⁸	2010	Chennai	131		43% ("Life partner") 59% (Casual) 75% (Paying)	
Brahmam et al., 2008 ^{z4}	2005-2007	South India	575	92.2% (paying partner)	16.8% (Non-regular, non-commercial) 48.5% (Regular)	
Setia et al., 2006 ⁶	2001	Mumbai	28			54% "rarely used condom" for anal sex

^y These studies have used different timeframes to measure consistency of condom use, and hence the findings are not directly comparable.

^z No timeframe was given for measuring consistent condom use

Box 3. Meta-analysis: Prevalence of inconsistent condom use among MtF transgender people in India

Inclusion criteria were: peer-reviewed publications (including those in press) and grey literature. Only those studies that specified the types of male partners (regular, casual, paying or paid) were included; thus, two studies (Setia et al., 2006⁶ & Sahastrabudhe et al., 2012⁷) that did not provide the details of the type of partners were excluded. Similarly, one article in press (Chakrapani et al., 2013²⁷) that provided condom use details of HIV-positive MtF transgender people was excluded.

As it is known that condom use differs according to the type of partners, meta-analysis (using random effects model) was conducted separately for condom use with different types of male partners. Even though it is more likely that the condom use of MtF transgender people might differ based on the setting of recruitment (STI clinic or community-based setting), because of the relatively small number of available studies, no subgroup comparisons are shown.

The combined prevalence of inconsistent condom use among MtF transgender people with their different types of male partners are as follows:

- With male regular partners: 55.7% (95% CI: 49.7–61.6)
- With male paying partners: 36.2% (95% CI: 26.9–46.7)
- With male casual partners: 59.6% (95% CI: 36.1–79.4)

Fig A. Prevalence of inconsistent condom use with male regular partners of MtF transgender people in India

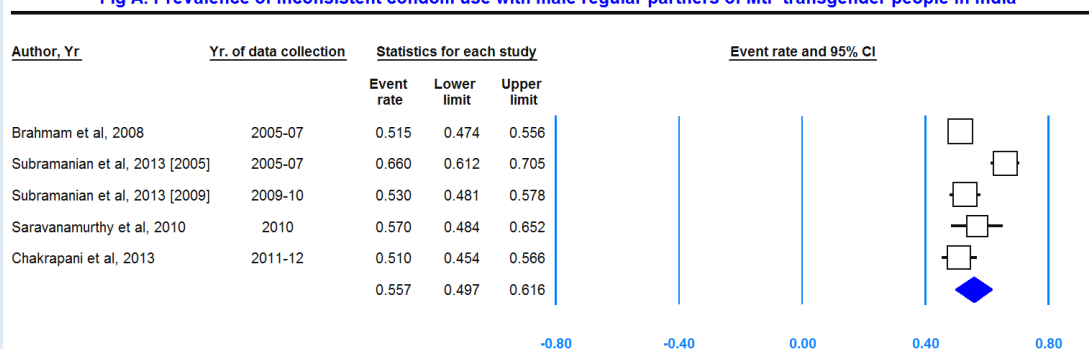


Fig B. Prevalence of inconsistent condom use with male paying partners of MtF transgender people in India

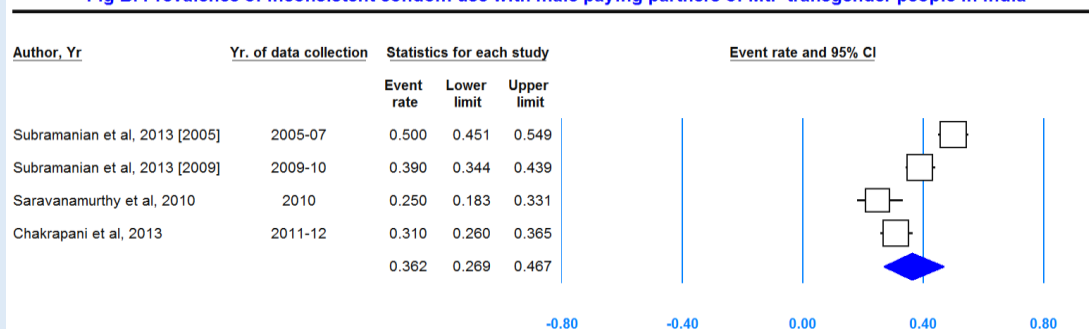
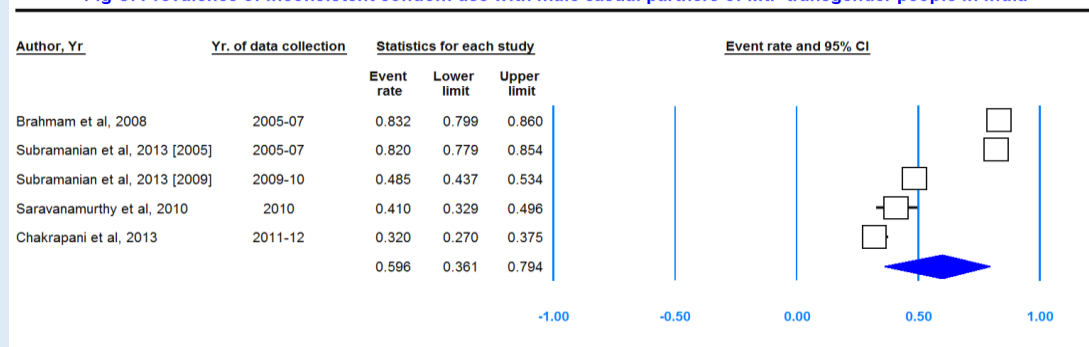


Fig C. Prevalence of inconsistent condom use with male casual partners of MtF transgender people in India



Box 4. Policy and Legal Environment for transgender people in India

For the first time, the Planning Commission of India has explicitly stressed the need for “empowerment of the transgender community by advocating that line Ministries [such as Ministry of Social Justice and Empowerment, and Ministry of Education] support their education, housing, access to healthcare” in its draft 12th five-year plan (Planning Commission, 2012³¹), and in its approach paper recommends that “the health policy must focus on the special requirements of ...lesbian, gay, bisexual, and transgendered (LGBT) community” (Planning Commission, 2011³²). However, so far, no anti-discrimination laws/policies are available to protect transgender people from discrimination on the basis of one’s gender identity or sexual orientation. Legal recognition of the gender identity of hijras/TG people³³ is currently being debated in courts.

In 2009, consensual sex between same-sex adults was decriminalised (‘reading down’ of Section 377³⁴). However, in December 2013, the Supreme Court of India overturned the Delhi High Court judgment, thus recriminalizing consensual adult same-sex relationships and criminalizing sex other than ‘peno-vaginal sex’. This judgment has virtually criminalised individuals, including hijras/TG people, who engage in non-penovaginal sex.

8. Conclusions and Implications

- Hijras and other MtF transgender people have disproportionately higher HIV/STI burden. Vulnerability to HIV/STIs is not only due to individual level risk behaviors (condom and alcohol use), but also due to interconnected factors beyond individual level – community (societal attitude and hijra/TG peer norms on condom use) and structural levels (discrimination in health care settings and lack of anti-discrimination policies).
- Limited strategic information is available on the contexts behind HIV-related risk behaviors of the various subgroups of MtF transgender people and how to effectively take into account these contexts when developing interventions to decrease HIV/STI burden among hijras/TG people.
- Further studies and multi-stakeholder consultations are needed:
 - to systematically follow the trends in STI/HIV prevalence among hijras/TG people in different parts of India (to assist in initiating and evaluating HIV interventions for hijras/TG).
 - to help design subgroup-specific intervention components to handle the unique constraints faced by different subgroups of MtF transgender people (including HIV-positive hijras/TG) in practicing safer sex and accessing HIV prevention, treatment and care services.
 - to help design and evaluate HIV/STI interventions beyond the individual level: i.e., family, hijra/TG community, and structural levels.
 - to systematically evaluate the effectiveness of different models and subcomponents of HIV prevention interventions for MtF transgender people.

9. References

- ¹ National AIDS Control Organisation (NACO) (2007). Targeted interventions under NACP-III: Operational guidelines, Volume 1, Core high risk groups, New Delhi: NACO.
- ² Department of AIDS Control, Ministry of Health & Family Welfare (2013). Annual Report 2012-13. New Delhi: Department of AIDS Control.
http://www.naco.gov.in/upload/Publication/Annual%20Report/Annual%20report%202012-13_English.pdf
- ³ National AIDS Control Organization (NACO). (2012). *HIV Sentinel Surveillance 2010-11: A Technical Brief*. New Delhi, India: National AIDS Control Organisation, Government of India.
- ⁴ Brahmam, G. N., Kodavalla, V., Rajkumar, H., Rachakulla, H. K., Kallam, S., Myakala, S. P., . . . Team, I. S. (2008). Sexual practices, HIV and sexually transmitted infections among self-identified men who have sex with men in four high HIV prevalence states of India. *AIDS*, 22 Suppl 5, S45-57.
- ⁵ Subramanian, T., Ramakrishnan, L., Aridoss, S., Goswami, P., Kanguswami, B., Shajan, M., . . . Paranjape, R. S. (2013). Increasing condom use and declining STI prevalence in high-risk MSM and TGs: evaluation of a large-scale prevention program in Tamil Nadu, India. *BMC Public Health*, 13, 857.
- ⁶ Setia, M. S., Lindan, C., Jerajani, H. R., Kumta, S., Ekstrand, M., Mathur, M., . . . Klausner, J. D. (2006). Men who have sex with men and transgenders in Mumbai, India: an emerging risk group for STIs and HIV. *Indian J Dermatol Venereol Leprol*, 72(6), 425-431.
- ⁷ Sahastrabuddhe, S., Gupta, A., Stuart, E., Godbole, S., Ghate, M., Sahay, S., . . . Mehendale, S. M. (2012). Sexually transmitted infections and risk behaviors among transgender persons (Hijras) of Pune, India. *J Acquir Immune Defic Syndr*, 59(1), 72-78. doi: 10.1097/QAI.0b013e318236bd6f
- ⁸ P. S. Saravanamurthy, P. R., Priya M. Miranda, G. Ashok, Sai S. Raghavan, Julia H. Arnsten, L. Ramakrishnan and S. Vijayakumar. (2010). A Cross-sectional Study of Sexual Practices, Sexually Transmitted Infections and Human Immunodeficiency Virus among Male-to-Female Transgender People. *American Medical Journal*, 1(2), 113-119. doi: 10.3844/amjsp.2010.113.119
- ⁹ Gupte, S., Daly, C., Agarwal, V., Gaikwad, S. B., & George, B. (2011). Introduction of rapid tests for large-scale syphilis screening among female, male, and transgender sex workers in Mumbai, India. *Sex Transm Dis*, 38(6), 499-502. doi: 10.1097/OLQ.0b013e318205e45d
- ¹⁰ Chakrapani, V., Mhaprolkar, H., Newman, P.A., Anand, V. R., Kavi, A. R. (2008). Social hierarchy, Community norms, and HIV risk among Hijra (transwomen) communities in India. : AIDS 2008 - XVII International AIDS Conference: Abstract no. WEPE0708. <http://www.iasociety.org/Default.aspx?pageId=11&abstractId=200715453>
- ¹¹ Chakrapani, V., Mhaprolkar, H., Basu, J., Kavi, A.R. (2007). Dynamics of men who have sex with men (MSM) and Hijras in Maharashtra: A qualitative study on sexual networks and vulnerability. Report commissioned by the AVERT Society/USAID, Maharashtra, India.
<http://www.humsafar.org/ResDown/RESEARCH%20Dynamics%20of%20MSM%20and%20Hijras%20in%20Maharashtra%202007.pdf>
- ¹² Chakrapani, V., and Dhall, P. (2011). Family Acceptance among Self-identified Men who have Sex with Men (MSM) and Transgender People in India. © Family Planning Association of India (FPAI): Mumbai.
- ¹³ Chakrapani, V. (2010). Hijras/transgender women in India: HIV, human rights and social exclusion. Issue brief. © United Nations Development Programme (UNDP) – India: New Delhi.
http://www.undp.org/content/dam/india/docs/hijras_transgender_in_india_hiv_human_rights_and_social_exclusion.pdf
- ¹⁴ Chakrapani, V., Babu, P., & Ebenezer, T. (2004). Hijras in sex work face discrimination in the Indian health-care system. *Research for Sex Work*, 7, 12-14. <http://www.nswp.org/research-sex-work>
- ¹⁵ PUCL-K. (2003). Human rights violations against the transgender community: A study of kothi and hijra sex workers in Bangalore, India. <http://www.pucl.org/Topics/Gender/2003/sexual-minorities.pdf>
- ¹⁶ Bharat, S. (2011). A systematic review of HIV/AIDS-related stigma and discrimination in India: current understanding and future needs. *SAHARA J*, 8(3), 138-149.
- ¹⁷ Chakrapani, V., Logie, C. H., Shunmugam, M., & Newman, P.A. (2013, November). Assessment of 'Transgender identity stigma' scale among Indian male-to-female transgender people. E-poster presentation at the 11th International Congress on AIDS in Asia and the Pacific, Bangkok, Thailand.
- ¹⁸ Chakrapani, V., Samuel, M., Shunmugam, M., & Sivasubramanian, M. (2013). Modelling the Impact of Stigma on Depression and Sexual Risk Behaviours of Men who have Sex with Men and Hijras/Transgender women in India: Implications for HIV and Sexual Health Programmes. Jointly published by Madras Christian College, the Humsafar Trust and C-SHaRP, with support from ICMR.
- ¹⁹ Chakrapani, V., Shanmugam, M., Michael, S., Velayudham, J., Newman, P. A. (2008). HIV Testing Barriers and Facilitators Among Populations At-Risk in Chennai, India. Indian Network for People Living with HIV/AIDS: Chennai.

-
- ²⁰ Beattie, T. S. H., Bhattacharjee, P., Suresh, M., Isac, S., Ramesh, B. M., & Moses, S. (2012). Personal, interpersonal and structural challenges to accessing HIV testing, treatment and care services among female sex workers, men who have sex with men and transgenders in Karnataka state, South India. *J Epidemiol Community Health*, 66(Suppl 2), pp. doi: 10.1136/jech-2011-200475
- ²¹ Chakrapani, V., Newman, P. A., Shunmugam, M., & Dubrow, R. (2011). Barriers to free antiretroviral treatment access among kothi-identified men who have sex with men and aravanis (transgender women) in Chennai, India. *AIDS Care*, 23(12), 1687-1694. doi: 10.1080/09540121.2011.582076
- ²² Chakrapani V, Mehta S, Buggineni, P, Barr F. Sexual and Reproductive Health of Males-at-Risk in India: Service Needs, Gaps, and Barriers. New Delhi, India: India HIV/AIDS Alliance, 2008.
- ²³ Chakrapani, V, Newman, PA, Mhaprolkar, H, Kavi, AR. (2007). Sexual and Social Networks of MSM and Hijras in India: A qualitative study. http://www.humsafar.org/ResDown/RESEARCH%20HST_RALF_Report.pdf
- ²⁴ Dasgupta, R. K. (2013). Launda Dancers: The Dancing Boys of India. *Asian Affairs*, 44(3), 442-448.
- ²⁵ National Summary Report – India (July 2011), Integrated Behavioural and Biological Assessment (IBBA), Round 2 (2009-2010). New Delhi: Indian Council of Medical Research and FHI 360.
- ²⁶ Hernandez, A. L., Lindan, C. P., Mathur, M., Ekstrand, M., Madhivanan, P., Stein, E. S., . . . Jerajani, H. R. (2006). Sexual behavior among men who have sex with women, men, and Hijras in Mumbai, India--multiple sexual risks. *AIDS Behav*, .10(Suppl1), pp. doi: 10.1007/s10461-006-9129-z
- ²⁷ Chakrapani, V., Shunmugam, M., Newman, P.A., Kershaw, T., Dubrow, R. (In Press, 2013). HIV status disclosure and condom use among HIV-positive men who have sex with men and hijras (male-to-female transgender people) in India: Implications for prevention. *Journal of HIV/AIDS and Social Services*.
- ²⁸ Shunmugam, M., Sivasubramanian, M., Roy Karmakar, S., Samuel, M., & Chakrapani, V. (2012, July). Extent of alcohol use and its association with inconsistent condom use among hijras/transgender (male-to-female) people in India: survey findings from urban and rural sites in Maharashtra and Tamil Nadu. Poster presented at the International AIDS Conference, Washington DC, USA.
- ²⁹ Kundu et al. (2013). P4.114 Sexual Behavior and Practice Among Transgenders in West Bengal, India. *Sex Transm Infect*, 89(Suppl 1), A323-A323. doi: 10.1136/sextrans-2013-051184.1011
- ³⁰ Chakrapani, V., Samuel, M., Shunmugam, M., & Sivasubramanian, M. (2013). Modelling the Impact of Stigma on Depression and Sexual Risk Behaviours of Men who have Sex with Men and Hijras/Transgender women in India: Implications for HIV and Sexual Health Programmes. Jointly published by Madras Christian College, the Humsafar Trust & C-SHaRP, with support from ICMR.
- ³¹ Planning Commission, Government of India. (2012). Twelfth Five Year Plan (2012–2017). Social Sectors. Volume III. New Delhi: Author. http://planningcommission.gov.in/plans/planrel/12thplan/pdf/vol_3.pdf
- ³² Planning Commission, Government of India. (2011). Faster, Sustainable and More Inclusive Growth: An Approach to the Twelfth Five Year Plan (2012-17). New Delhi: Author. http://planningcommission.nic.in/plans/planrel/12appdrft/approach_12plan.pdf
- ³³ Chakrapani, V., and Narrain, A. (2012). Legal recognition of gender identity of transgender people in India: Current situation and potential options. ©UNDP India: New Delhi. http://www.undp.org/content/dam/india/docs/HIV_and_development/legal-recognition-of-gender-identity-of-transgender-people-in-in.pdf
- ³⁴ Misra, G. (2009). Decriminalising homosexuality in India. *Reprod Health Matters*, 17(34), 20-28.



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