



HPTN

HIV Prevention
Trials Network

***HIV Transmission Risk Among
Transgender Women compared with
Cisgender Women and MSM Living with HIV***

HPTN 063

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Introduction

- Transgender women (TW) are heavily impacted by HIV in every country where there are data
 - 19% pooled HIV prevalence¹
 - 49-fold higher odds v. general adult population¹
- Little is known about HIV/STI risk behaviors among transgender women living with HIV
- Rarely do studies situate transgender women's risk in the context of cisgender women's risk



HPTN 063 Parent Study

- Longitudinal mixed methods cohort study
 - Population: HIV+ MSM, heterosexual women and men in Rio de Janeiro, Chiang Mai, and Lusaka.
 - Lusaka did not collect data among MSM nor did they include any women who were transgender.
 - 5 assessments over 1 year
- Quantitative data
 - Structured interviews: sexual behavior, cultural beliefs, mental health, social support, substance use, adherence
 - Laboratory data: CD4 count, viral load, syphilis titer

Scholar Project*: Aims & Hypotheses

- **AIM 1**: Compare HIV transmission risk factors of transgender women (TW) to heterosexual cisgender women (CGW) and MSM
 - H1.1: TW will be more likely have depressive symptoms, less likely to use condoms and less likely to be virally suppressed compared to MSM and CGW.
- **AIM2**: Identify predictors of HIV transmission risk among TW
 - H2.1: Depression symptoms (CES-D) will be negatively associated with condom use and viral suppression.
 - H2.2: Depression will mediate the relationship between gender identity and condom use and viral suppression, respectively.

Methods

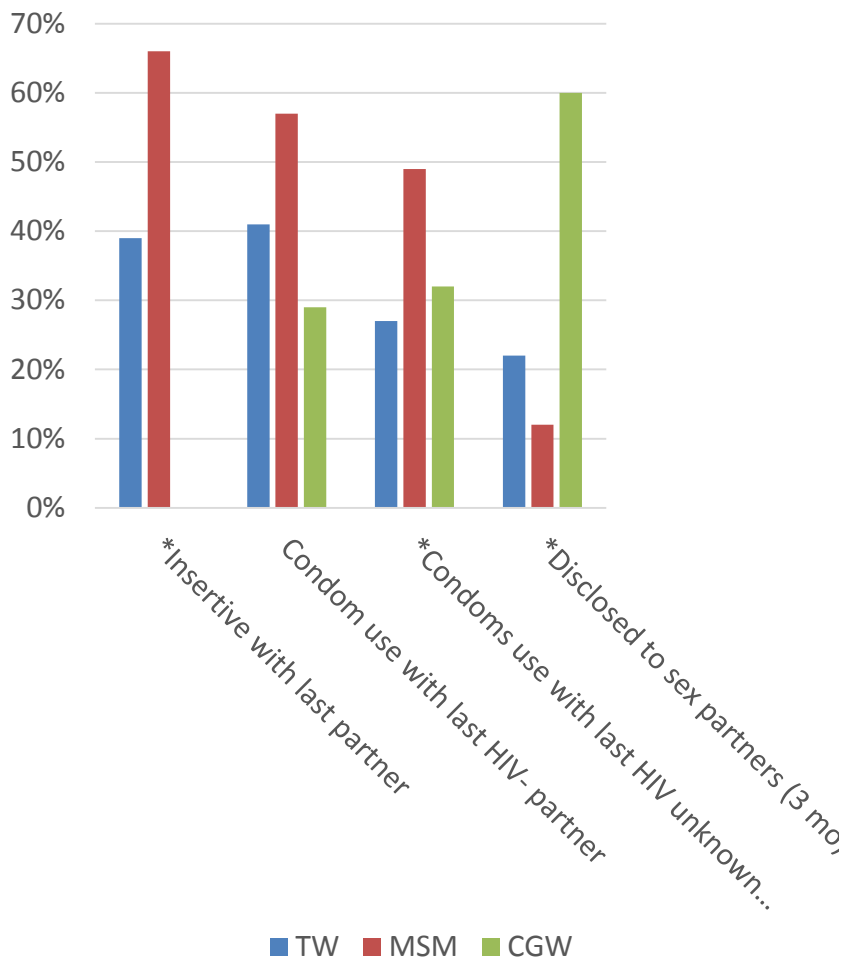
- Measures
 - TW: self-report “transgender” or “woman” in MSM cohort
 - Depression: CES-D scale score ≥ 16
 - Viral load: “detectable” via country-specific criteria, where available in chart review
 - Condom use/sexual behavior
 - Number of partners by status/condom use in prior 3 months
 - Condom use over past 3 months by partner status
 - Sexual position with most recent partner
- Analysis
 - Bivariate associations between dependent and independent variables of interest, namely gender
 - Multivariable regression models including depression, did not control for demographics due to small sample sizes
 - Results stratified by site (Thailand and Brazil)

Demographic Characteristics

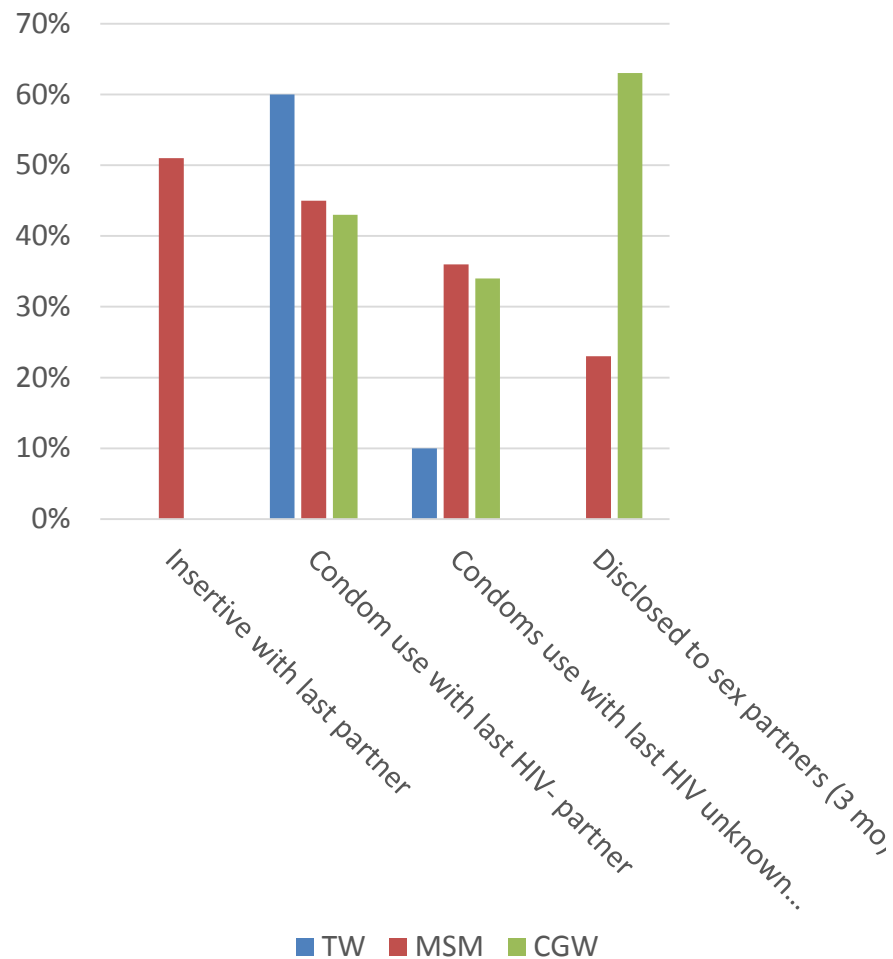
Characteristic	Trans women (n=37)	Cis women (n=165)	MSM (151)
Age in years			
mean (range)	37 (19-54)	38 (18-54)	36 (18-62)
Country			
Thailand	73.0%	40.0%	40.4%
Brazil	27.0%	60.0%	59.6%
Education			
Primary or less	37.8%	61.2%	24.5%
Secondary	46.0%	29.7%	39.7%
Tech/Some college	5.4%	6.1%	17.2%
College graduate	10.8%	3.0%	18.5%
Work Situation			
Unemployed	16.2%	21.2%	18.5%
Sex work	10.8%	0.0%	0.66%

Aim 1: Potential Sexual Transmission Behaviors

Thailand



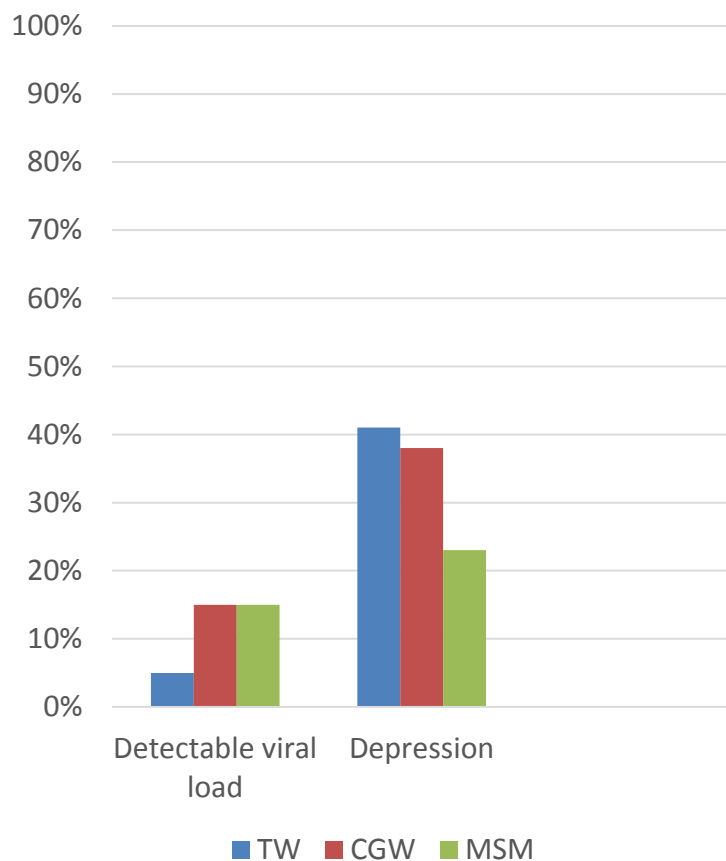
Brazil



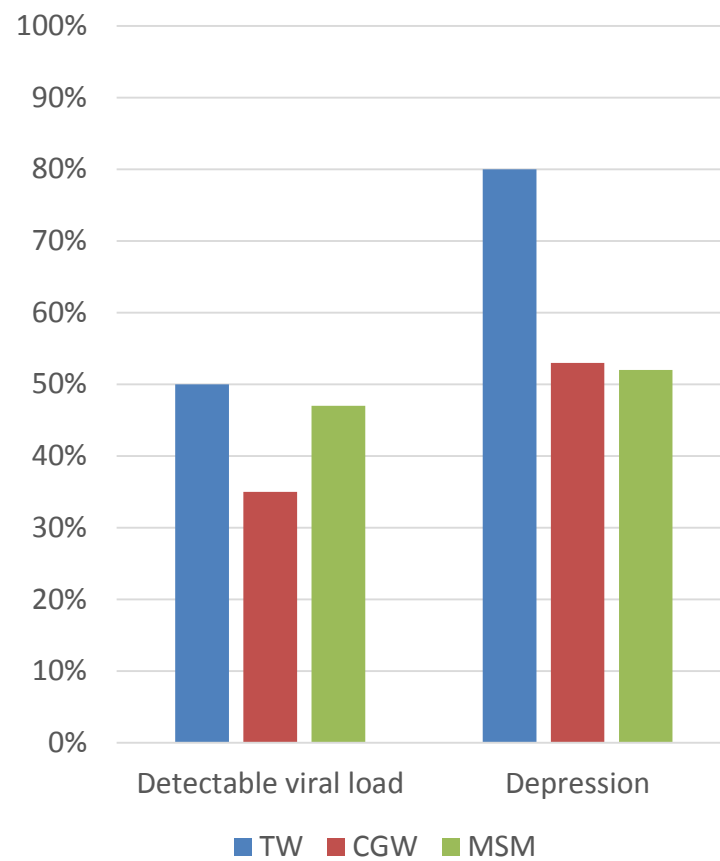
*=p<0.05

Aim 1: Viral Load and Depression

Thailand



Brazil



Aim 2: Depression & risk for sexual transmission

- Bivariate models for depression
 - No significant relationship with condom use ($p>0.05$)
 - Marginally significant relationship with viral load ($p=0.054$)
- Multivariable models
 - Site significant predictor of viral load & depression
 - Lower viral load and greater % undetectable in Thailand compared to Brazil
 - Higher CES-D scores and greater % above the depression cut-off in Brazil compared to Thailand
 - Gender significant predictor of condom use
 - Highest among MSM in both settings
 - Lowest among CGW in Thailand and TW in Brazil

Aim 2: Depression as Mediator

- Transgender identity was not statistically associated with higher likelihood of a detectable viral load, therefore mediation analysis was not done.
- Transgender identity significantly associated with lower likelihood of condom use with partners of unknown status
 - Depression did not mediate that relationship since no relationship between depression and condom use
 - High rates of sex work and low condom use with HIV unknown partners among TW may be related, i.e. TW may lack negotiating power in sex work encounters, where the HIV status of clients are not known.

Conclusion

- Context matters
 - Significant variability by gender groups
 - BOTH identity and anatomy matter, eg.
 - TW similar to CGW in depression scores in Thailand
 - TW similar to MSM in detectable viral loads in Brazil
 - Significant variability by site, eg.
 - Brazil had higher depression scores and lower rates of viral suppression in all gender groups.
- Implications/Next steps
 - Larger (pool-able) data set would allow more complex analysis re: social support, hormone use
 - Inclusion of 20% TW in MSM study support feasibility of recruiting TW with targeted sampling

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