

**Miss Alicja Beksinska**  
London School of Hygiene and Tropical Medicine

Fourth Joint Conference *of the* **British HIV Association** *with the* **British Association for Sexual Health and HIV**  
Edinburgh International Conference Centre ♦ 17-20 April 2018

# Mapping the violence landscape among female sex workers in Karnataka, South India: associations between violence exposure by perpetrator, and HIV/STI risk

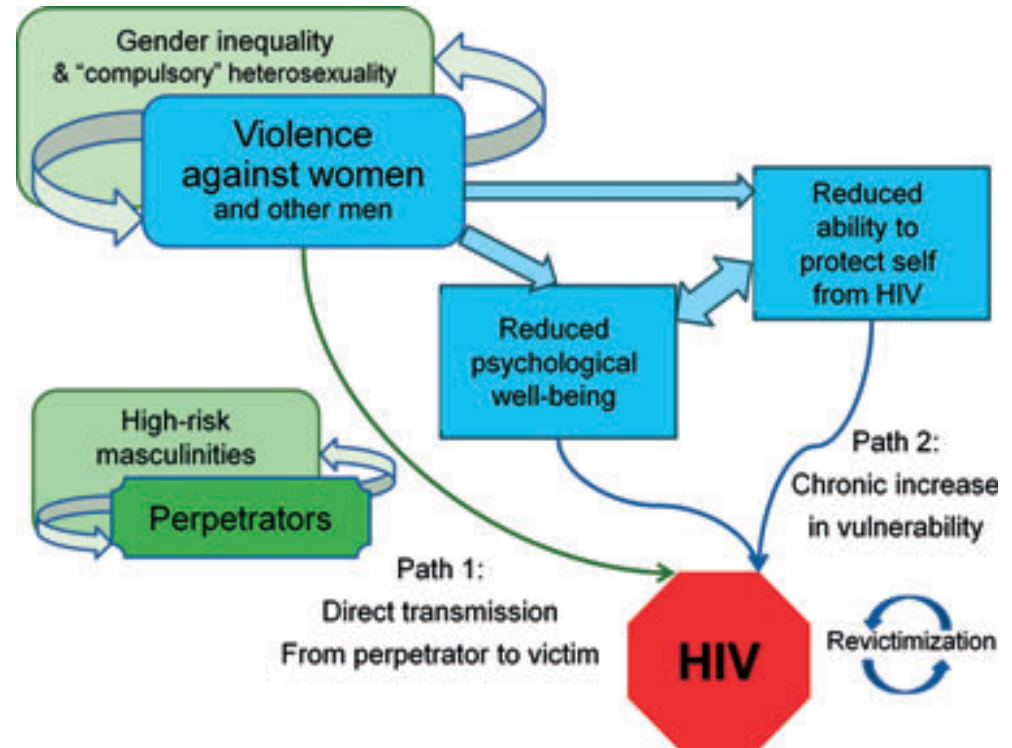
**Authors:** Alicja Beksinska<sup>1,2</sup>, Ravi Prakash<sup>3</sup>, Shajy Isac<sup>3</sup>, H.L. Mohan<sup>3</sup>, Lucy Platt<sup>4</sup>, James Blanchard<sup>5,6</sup>, Stephen Moses<sup>5,6</sup>, Tara S Beattie<sup>1</sup>

**Institutions:** <sup>1</sup>London School of Hygiene and Tropical Medicine, Department of Global Health and Development, London, UK, <sup>2</sup>Brighton and Sussex Medical School, Brighton, UK, <sup>3</sup>Karnataka Health Promotion Trust, Bengaluru, India, <sup>4</sup>London School of Hygiene and Tropical Medicine, Department of Social and Environmental Health, Faculty of Public Health and Policy, London, UK, <sup>5</sup>University of Manitoba, Department of Community Health Sciences, Winnipeg, Canada, <sup>6</sup>University of Manitoba, Department of Medical Microbiology, Winnipeg, Canada



# Violence and HIV/STI risk

- Gender-based violence affects 1 in 3 women globally<sup>1</sup>.
- Violence is associated with increased risk of HIV/STIs through direct and indirect mechanisms<sup>2</sup>.



*Fig. 1 Illustration of pathways from gender inequality and high-risk masculinity to increased HIV risk among survivors of violence. Dunkle et al. 2013<sup>2</sup>*

# Violence and sex work

- Women who sell sex are at increased risk of violence<sup>3</sup> and HIV/STIs<sup>4</sup> compared to the general population.
- Female sex workers (FSWs) are at risk of violence from a range of perpetrators<sup>5</sup>.
- Workplace violence from clients is the most widely documented.



Figure 2: Categorisation of violence by perpetrator

## Violence and HIV/STI risk among FSWs in India

- ❁ India's HIV epidemic is concentrated in high risk groups including FSWs<sup>6</sup>.
- ❁ **Violence against FSWs** has been identified as a key concern.
- ❁ In 2003, the Karnataka Health Promotion Trust (KHPT) as part of the Avahan Programme, funded by the Bill and Melinda Gates Foundation, was established to scale up HIV prevention with high-risk populations.
- ❁ The intervention reached over 60,000 FSWs using a **rights-based approach** to address **violence, stigma, and poverty** as part of comprehensive HIV prevention programming<sup>7</sup>.



# Aims

 To examine associations between **exposure to physical and/or sexual violence by perpetrator** and **prevalence of HIV, syphilis and high-risk sexual behaviours** among FSWs.





 **Primary outcomes**

- HIV prevalence
- Syphilis prevalence
- Self-reported STI symptom prevalence

 **Secondary outcomes**

- condom use at last sex with clients and regular partner
- condom breakage at last sex
- client or FSW under the influence of alcohol during last sex

# Methods

- 
**Integrated Biological and Behavioural Assessment (IBBA) survey in two districts in Karnataka (Bangalore and Shimoga) in 2011.**
  
- 
**Behavioural questionnaire**
  - Physical and sexual violence by non-partners in the past 6 months
  - Physical and sexual intimate partner violence in the past 12 months
    - women were asked who the perpetrator of this violence was (e.g. husband, client, police etc.)
    - Exposure to violence categorised as domestic, workplace or community perpetrator
  
- 
 Blood samples were taken to measure HIV and syphilis prevalence.
  
- 
 Weighted, bivariate and multivariate analyses were used to examine associations between violence by perpetrator and HIV/STI risk.

Integrated Biological and Behavioral Assessment (IBBA) 2011, Round 3  
Karnataka Health Promotion Trust, Bangalore

SECTION I: INTERVIEW INFORMATION	
Study number.....	<input type="text"/> <input type="text"/> <input type="text"/>
PSU Name and code _____	<input type="text"/> <input type="text"/> <input type="text"/>
City/Town/Village _____	<input type="text"/> <input type="text"/> <input type="text"/>
District _____	<input type="text"/> <input type="text"/>
Type of PSU (Home=1, Brothel=2, Lodge=3, Dabha=4, Public Place=5).....	<input type="checkbox"/>
.....	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>



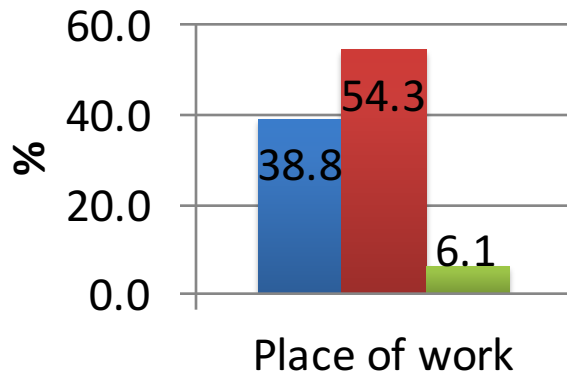
# Study population

☞ **n=1111** (Bangalore=718, Shimoga=393)

☞ Mean age: **32.9 years**

☞ Has a regular partner: **66.2%**

☞ Median number of clients per week: **6**



■ Home

■ Rented room/lodge/brothel

■ Public place/vehicle/bar/night club





# High rates of recent violence experience among FSWs

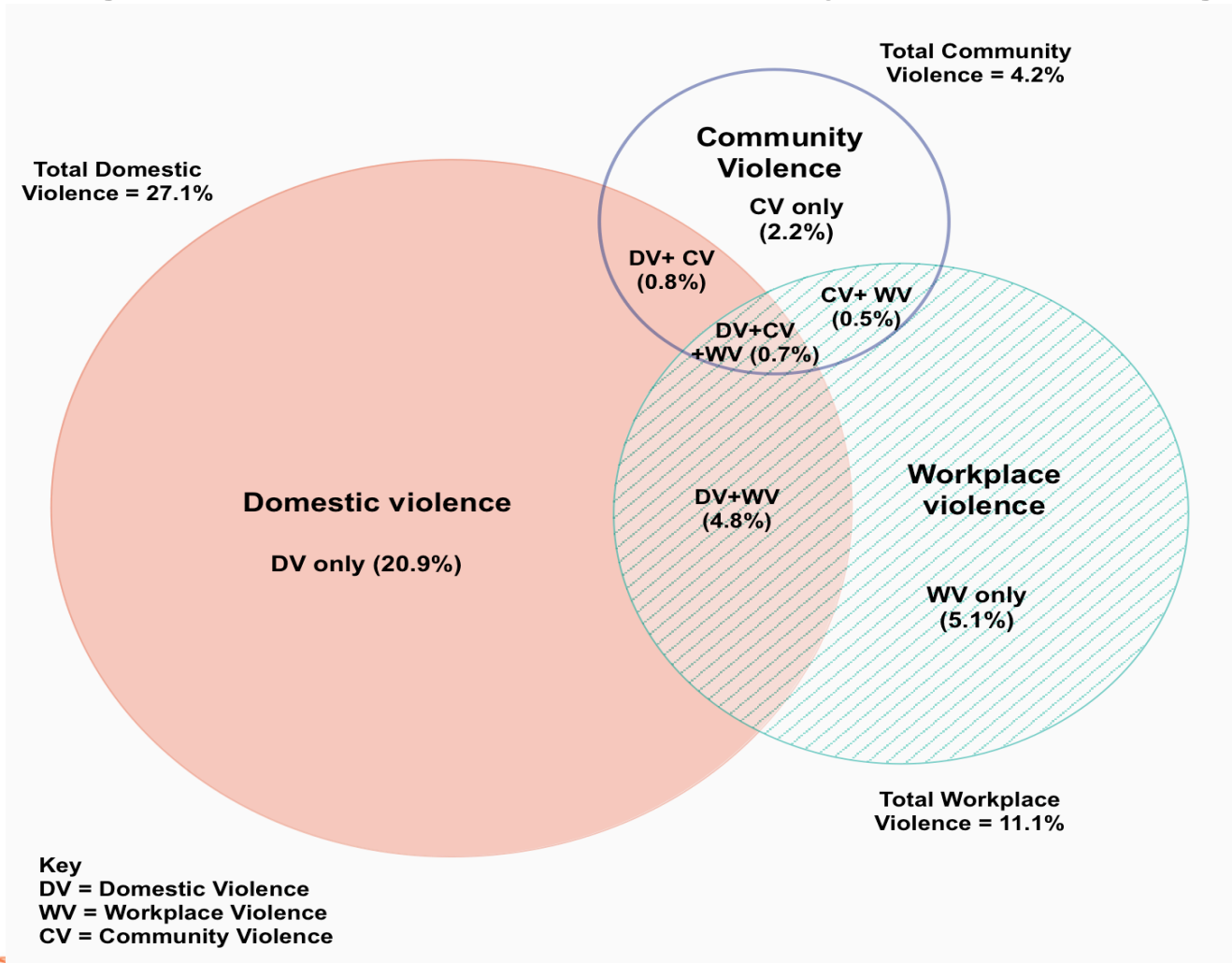
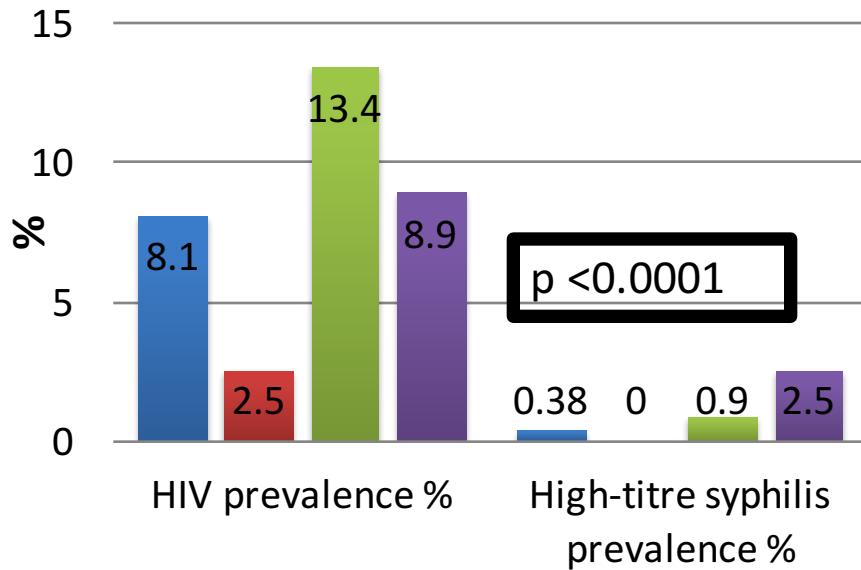


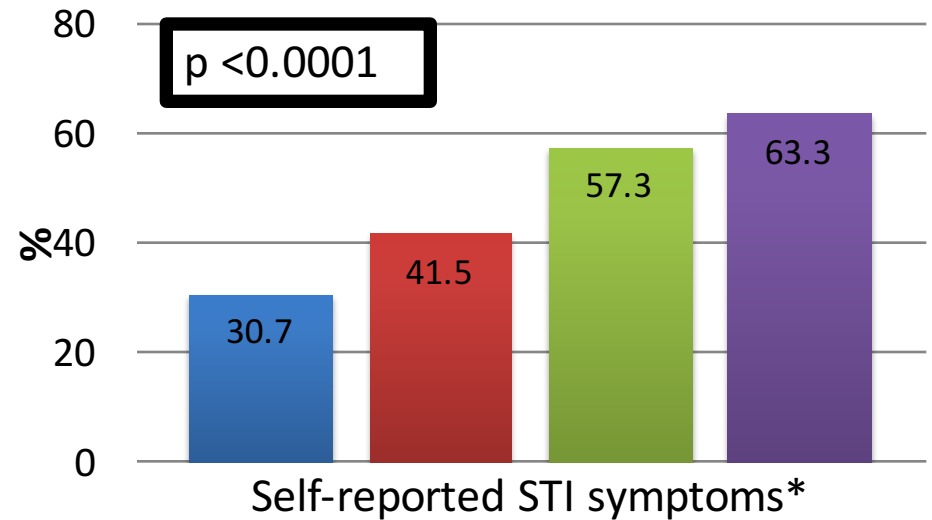
Figure 3: Proportional venn diagram showing recent violence experience among FSWs by perpetrator



## Violence from multiple perpetrators is associated with increased syphilis infection and self reported STI symptoms



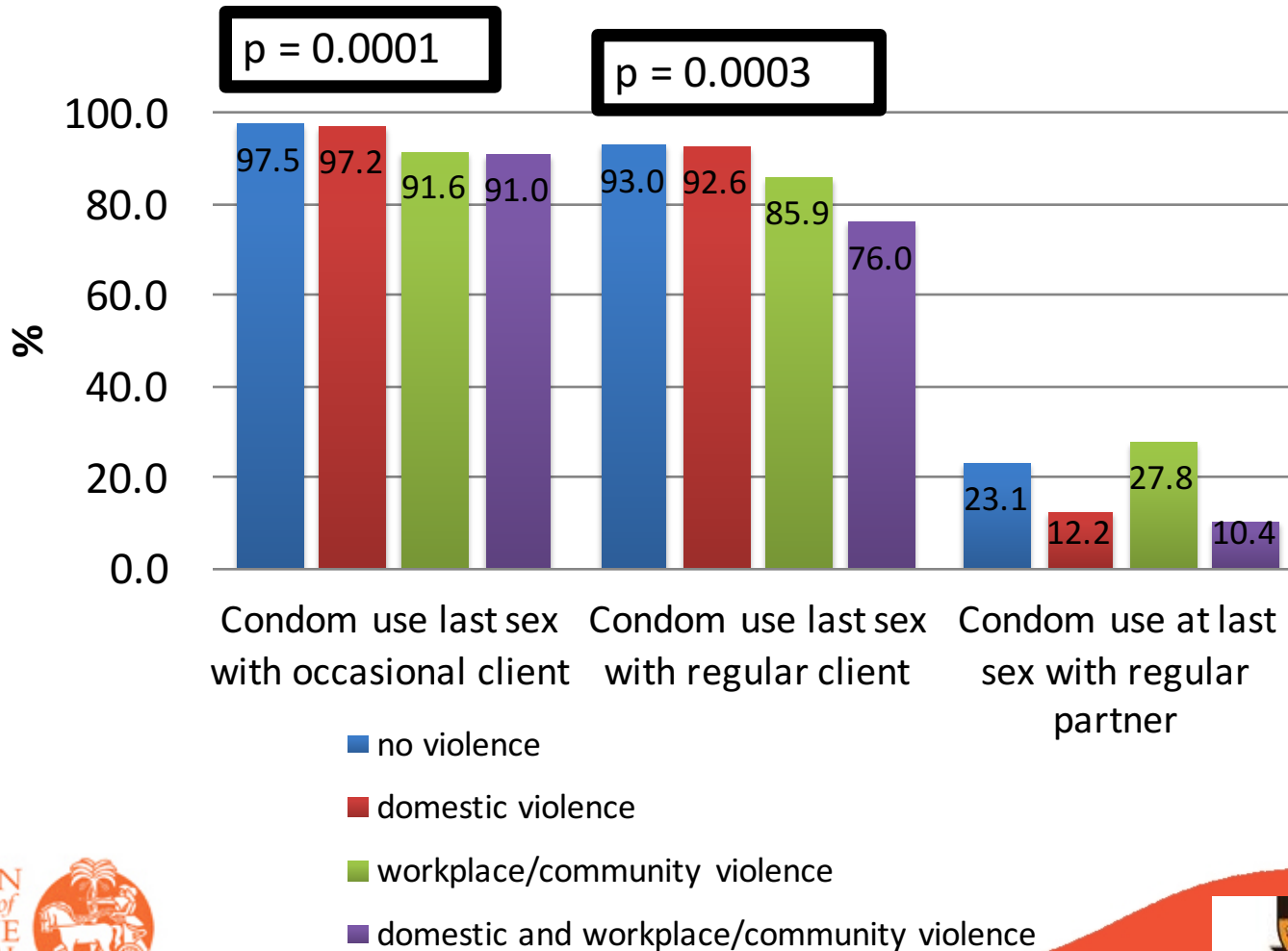
- no violence
- domestic violence
- workplace/community violence
- domestic and workplace/community violence



- no violence
- domestic violence
- workplace/community violence
- domestic and workplace/community violence

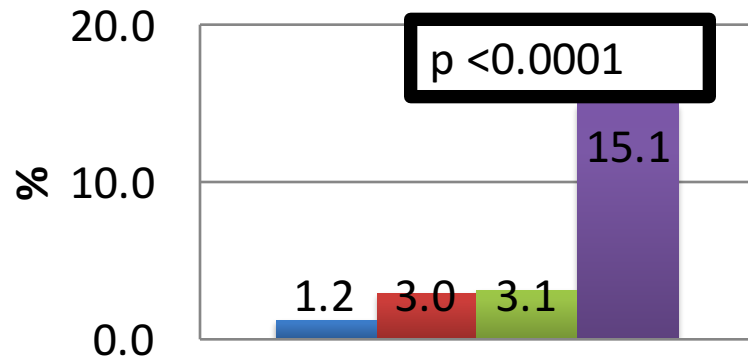
*\*Self reported STI symptoms include: vaginal discharge, lower abdominal pain not associated with menses and/or genital ulcer*

## Reduced condom use with clients is associated with workplace/community violence and violence from multiple perpetrators



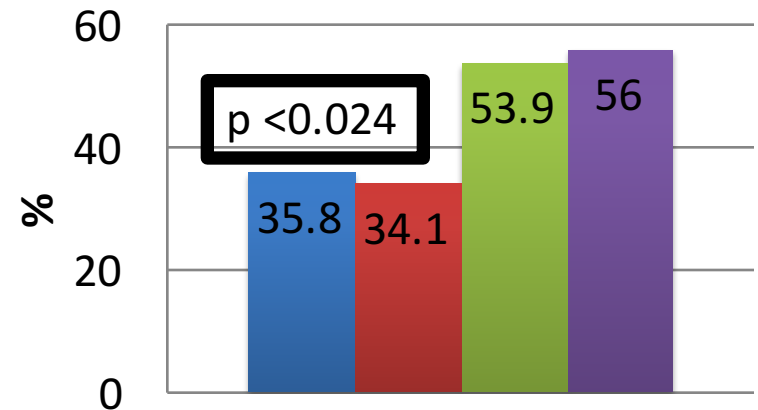
## Violence from multiple perpetrators is associated with increased condom breakage and alcohol use at last sex

Condom breakage at last sex by perpetrator



- no violence
- domestic violence
- workplace/community violence
- domestic and workplace/community violence

Alcohol use at last sex by perpetrator



- no violence
- domestic violence
- workplace/community violence
- domestic and workplace/community violence

# Discussion

- ❁ **Domestic violence is the most prevalent violence by perpetrator** → currently few programmes address domestic violence among FSWs.
- ❁ Risk may be highest among FSWs experiencing violence from **domestic *and* workplace/community perpetrators.**  
→ Increasing levels of violence may increase sexual risks.
- ❁ Effective HIV/STI prevention programmes need to include violence interventions that **address violence across women's personal and working lives.**

# Thank you

Questions?



# References

1. Devries KM, Mak JYT, García-Moreno C, et al. The Global Prevalence of Intimate Partner Violence Against Women. *Science* 2013;340(6140):1527-28. doi: 10.1126/science.1240937
2. Dunkle KL, Decker MR. Gender-based violence and HIV: reviewing the evidence for links and causal pathways in the general population and high-risk groups. *Am J Reprod Immunol* 2013;69 Suppl 1:20-6. doi: 10.1111/aji.12039
3. Deering KN, Amin A, Shoveller J, et al. A systematic review of the correlates of violence against sex workers. *Am J Public Health* 2014;104(5):e42-54. doi: 10.2105/ajph.2014.301909 [published Online First: 2014/03/15]
4. Baral S, Beyrer C, Muessig K, et al. Burden of HIV among female sex workers in low-income and middle-income countries: a systematic review and meta-analysis. *Lancet Infect Dis* 2012;12(7):538-49. doi: 10.1016/S1473-3099(12)70066-X
5. Decker MR, Crago A-L, Chu SKH, et al. Human rights violations against sex workers: burden and effect on HIV. *The Lancet*;385(9963):186-99. doi: 10.1016/S0140-6736(14)60800-X
6. Beattie TS, Bhattacharjee P, Isac S, et al. Declines in violence and police arrest among female sex workers in Karnataka state, south India, following a comprehensive HIV prevention programme. *J Int AIDS Soc* 2015;18:20079. doi: 10.7448/IAS.18.1.20079
7. Gurnani V, Beattie TS, Bhattacharjee P, et al. An integrated structural intervention to reduce vulnerability to HIV and sexually transmitted infections among female sex workers in Karnataka state, south India. *BMC Public Health* 2011;11:755. doi: 10.1186/1471-2458-11-755

