

### The Impact of Syndemic Problems on Sexual and Medical Health Behaviors in HIV-positive Patients in Care in Brazil, Thailand, and Zambia

#### **HPTN 063**

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## Introduction

- Treatment as Prevention works
- However, not for everyone:
  - Depression
  - Substance use
  - Additional psychosocial problems
- Compared to primary HIV prevention, there is limited data on the additive effects of these syndemics within HIV care

Daskalopoulou M, Rodger A, Phillips AN, Sherr L, Speakman A, Collins S, Elford J, Johnson MA, Gilson R, Fisher M, et al. Recreational drug use, polydrug use, and sexual behaviors in HIV-diagnosed men who have sex with men in the UK: Results from the cross-sectional ASTRA study. *Lancet* HIV 9(1):e22-31. doi: 10.1016/S2352-3018(14)70001-3 Mgidson JF, Li X, Mimiaga MJ, Moore AT, Srithanaviboonchai K, Friedman RK, Limbada M, Hughes JP, Cummings V, Gaydos CA, Elharrar V, Celentano D, Mayer KH, Safren SA. Atiretroviral medication adherence and amplified HIV transmission risk among sexually active HIV-infected individuals in three diverse international settings. *AIDS Behav* Epub ahead of print. White JM, Gordon JR, Mimiaga, MJ. The role of substance use and mental health problems in medication adherence among HIV-infected MSM. *LGBT Health* 1(4):319-322. doi: 10.1089/lgbt.2014.0020 Singer M, Clair S. Syndemics and public Hhealth: Reconceptualizing disease in a bio-social context. *Med Anthropol Q*. 2003,17(4): 423-441.



## HPTN - 063

 A multi-site longitudinal observational cohort study of high risk HIV-infected individuals (n = 749) in **HIV** care

#### 1PoBeatia(rsy2163) mic

#### indicators rosexual men

- Polydrug use

   99 heterosexual women
   Stimulant use
   Inailand (n=300)

  2.
  - epressive sexual men \_symptoms
  - Alcologetessexual women
- 3. Zambia (n=186)

-diseringinationality -social consequences



# **Aim and Analysis**

#### Aim

- Examine the degree to which syndemic problems are related to:
  - 1. Nonadherence to ART
  - 2. Condomless sex (both any condomless sex and serodiscordant condomless sex)
  - 3. Serodiscordant condomless sex in individuals who are either not on ART or report ART nonadherence

#### Analysis

- Syndemic score reflecting the summative count of assessed psychosocial problems – Representing syndemic scores of 0, 1, 2, and 3 or more
- A logistic regression model, fitted via generalized estimating equations (GEE) was used to study the association between selfreported adherence and the syndemic score while adjusting for other covariates



### **Distribution of ART adherence**



 High syndemic scores coincide with lower proportion of adherence regardless of the visit number



## Adjusted odds ratio for ART adherence by study groups

Results from logistic regression model



- Among heterosexual men and women, adherence is lower for individuals in groups with higher syndemic scores
  - This pattern is not evident in MSM



### Adjusted odds ratio for ART adherence by site

Results from logistic regression model



 Adherence is lower for individuals in groups with higher syndemic scores



## Summary

- Findings suggest that increased co-occurrence of syndemic problems are associated with reduced ART adherence in people with HIV, but may be different across risk groups and country.
- Understanding syndemics among people with HIV by risk group will better inform culturally-relevant integrated models of HIV care.
- More research is needed to examine the degree to which syndemic problems are related to condomless sex in these groups.



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