

Project PHIRE:

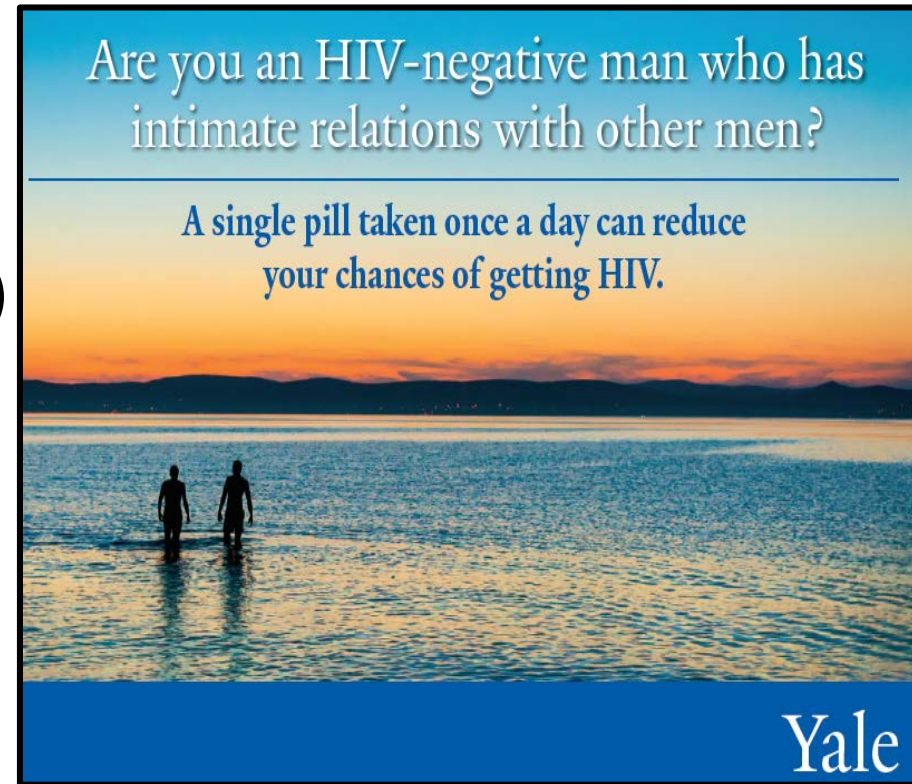
Prep HIV Intervention and Realistic Effects of substance use

Co-PIs:

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Study sites:

- ❖ Yale-New Haven Hospital, Nathan Smith HIV clinic, New Haven, Connecticut &
- ❖ The Miriam Hospital, Providence, Rhode Island



Project Aims

Aim 1: To examine the impact of a multi-pronged outreach intervention on expanding reach to MSM, especially those with substance use

- **Hypothesis 1:** Internet-based strategies will be most effective at increasing PrEP reach among MSM with substance use.

Aim 2: Among MSM initiating PrEP, to evaluate the impact of substance use on PrEP-related outcomes, including effectiveness (i.e. risk behaviors), implementation (i.e. adherence) and maintenance (i.e. retention-in-care) at 3 months

- **Hypothesis 2.** Substance-using MSM, compared to those without, will demonstrate increased risk behaviors, decreased PrEP adherence and decreased retention-in-care at 3 months.

Eligibility Criteria

Eligible patients :

- adult (age>18years),
- MSM, M to F transgender
- HIV-negative
- self report unprotected anal intercourse (UAI) with another male in recent 12 months prior to enrollment, and
- able to provide written consent

Exclusion criteria:

- individuals with contraindication for PrEP prescription
- unable to provide informed consent

Recruitment strategies



ONLINE OUTREACH

- Facebook
- Craigslist
- Grindr*

VS



*ongoing (active) strategies

COMMUNITY OUTREACH

- Clubs, Gay Bars, Bathhouses
- Primary Care and HIV Clinics*
- STD Clinics *
- Community-Based AIDS Service Organizations *
- Addiction Treatment Centers*
- Peer-to-Peer Outreach*

Outcomes and measurements

| RE-AIM | Outcome | Measurement |
|----------------|---------------------------------|---|
| Reach | Success of recruitment strategy | Relative proportion of participants learning about PrEP service for each outreach modality¶ |
| Effectiveness | Risk compensation* | Pre- and post-PrEP initiation HIV risk behavior frequency¶ |
| Implementation | Medication adherence* | Optimal adherence - > 90% PrEP medication use over study period (3 months)¶§ |
| Maintenance | Retention in care* | Return rates for scheduled follow-up clinic visit (month 3) |

¶ Per patient self-report

§ Pharmacy refill monitoring

HIV risk behaviors include condomless anal intercourse, sex with HIV+ partner or of unknown status, receipt of money or drugs for sex, sharing needles or drug paraphernalia

***The impact of active substance use on the specified outcomes will also be measured**

(Active substance use will be defined as the presence of unhealthy alcohol use and/or any illicit drug use)

Progress to date: meet our cohort

| | Total | Brown | Yale |
|-------------------------|--------------|--------------|--------------|
| Number Enrolled | 80 (100.0%) | 47 (58.7%) | 33 (41.3%) |
| <i>Referred from...</i> | | | |
| STD Clinic | 18 (22.5%) | 18 (38.3%) | 0 (0.0%) |
| Friend | 17 (21.3%) | 13 (27.7%) | 4 (12.1%) |
| Doctor | 15 (18.8%) | 6 (12.8%) | 9 (27.3%) |
| Community Organization | 15 (18.8%) | 5 (10.6%) | 10 (30.3%) |
| Online | 7 (8.8%) | 0 (0.0%) | 7 (21.2%) |
| Age (median, IQR) | 33 (26 – 42) | 32 (27 – 45) | 33 (25 – 41) |
| Non-white race | 27 (33.8%) | 19 (40.4%) | 8 (24.2%) |
| Hispanic/Latino | 19 (23.8%) | 10 (21.3%) | 9 (27.3%) |
| >High School Education | 69 (86.3%) | 38 (80.9%) | 31 (93.9%) |
| Ever taken PrEP before | 8 (10.0%) | 4 (8.2%) | 4 (12.1%) |

Substance Use & Risk Behavior

| | Total | Brown | Yale |
|--|------------|-----------|------------|
| In the past 3 months... | | | |
| Sex with men + women | 4 (5.0%) | 1 (2.1%) | 3 (9.1%) |
| Number of oral sex partners (median, IQR) | 4 (2 – 10) | 4 (2 – 9) | 5 (2 – 12) |
| Number of anal sex partners (median, IQR) | 3 (2 – 8) | 3 (2 – 8) | 5 (2 – 13) |

Substance Use & Risk Behavior

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|--|-------------|------------|------------|
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| Number of oral sex partners (median, IQR) | 4 (2 – 10) | 4 (2 – 9) | 5 (2 – 12) |
| Number of anal sex partners (median, IQR) | 3 (2 – 8) | 3 (2 – 8) | 5 (2 – 13) |
| AUDIT-C (median, IQR) | 4 (3 – 5.5) | 4 (3 – 6) | 4 (2 – 5) |
| AUDIT-C >4 [†] | 31 (38.8%) | 20 (42.6%) | 11 (33.3%) |
| Drug use past 3 months* | | | |
| Marijuana (≥daily) | 10 (12.5%) | 9 (19.2%) | 1 (3.0%) |
| Marijuana (<daily) | 26 (32.5%) | 17 (36.2%) | 9 (2.7%) |
| Poppers | 24 (30.0%) | 14 (29.8%) | 10 (30.0%) |

[†] AUDIT-C >4 in men denotes a positive screen for hazardous drinking

* <5 participants reported any injection drug use, cocaine, methamphetamine, heroin, MDMA, ketamine, GHB, NMPO, or benzodiazepines in the past 3 months

Summary and next steps

- Feasible to engage substance-using MSM with HIV risk behaviors to utilize PrEP
- > 1/3 of cohort engage in unhealthy alcohol use (other substance use less common)
- Expand recruitment to substance abuse treatment centers
- Assess demographic “reach” of various recruitment strategies across sites
- Evaluate cohort for 3-month outcomes
- Funding for future studies including MSM with unhealthy alcohol use initiating PrEP

It takes a team...

(community partners, clinicians, researchers)

Connecticut

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Rhode Island

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