

# A Social Network Strategy for HIV Self-Test Kit Distribution Through PrEP Program Clients

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## Background

- The success of ‘treatment as prevention’ (TasP) and Pre-Exposure Prophylaxis (PrEP) to reduce HIV incidence relies on the uptake of HIV testing across priority groups.
- Social network (SN) based interventions may facilitate distribution of HIV self-test (ST) kits and PrEP information to individuals from priority groups who do not routinely test for HIV and who are not on PrEP.
- PrEP clients of clinics that provide low-barrier care, who are members of priority groups, may be ideal distributors of HIV ST kits to members of their social networks.
- Distribution of HIV ST kits may facilitate dissemination of PrEP information to individuals at high risk of HIV.
- We describe characteristics of PrEP clients and members of their social networks that may influence dissemination of ST kits and PrEP information.

## Methods

- From November 2021 to March 2022, 100 PrEP clients, who receive care from the University of Miami PrEP program, were enrolled in the study.
- These participants (egos) were asked to complete a survey and offered up to four HIV ST kits to distribute among their social network.
- Ego-survey questions captured ego/alter demographics, description of up to 12 potential kit recipients (alters), ego-alter relationships, and history & intentionality of discussing PrEP with alters.
- A network visualization was developed from ego descriptions of alter closeness and PrEP discussion. The visualizations was constructed using UCINET and NetDraw.
- The relationship between ego/alter demographic characteristics and proportion of network members who discussed and planned to discuss PrEP, between and across networks, was assessed by bivariate and regression analysis.

## Results

- The 100 participants (egos) identified 416 alters.
- Demographics of egos and alters are described in Tables 1 and 2. Overall, 86 (86%) of participants (egos) were men who have sex with men (MSM).
- The mean number of alters described was 4.16, range 1 – 12.
- Forty-nine participants (egos) reported ever discussing PrEP with at least one alter.

Table 1. Ego Level Demographic Characteristics (N = 100)	
<b>Age</b>	
Mean (SD)	37.4 (9.86)
Median [Min, Max]	36.0 [19.0, 62.0]
Missing	5 (4.9%)
<b>Ethnicity</b>	
Non-Hispanic	17 (17.0%)
Hispanic/Latino	83 (83.0%)
<b>Race</b>	
White	60 (60.0%)
Black or African American	10 (10%)
Asian	1 (1.0%)
Multi-Racial	6 (6.0%)
Other	23 (23.0%)
<b>Gender Identity</b>	
Female	7 (7.0%)
Male	93 (93.0%)
<b>Sex assigned at birth</b>	
Female	6 (6.0%)
Male	94 (94.0%)
<b>Visit Type at Enrollment</b>	
PrEP Initial	26 (26.0%)
PrEP Follow-up	74 (74.0%)

Table 2. Alter Level Demographic Characteristics (N = 414)	
<b>Age Range</b>	
18 - 29	119 (28.7%)
30 - 39	197 (47.6%)
40 - 49	66 (15.9%)
50 +	28 (6.8%)
Not Reported	4 (1.0%)
<b>Ethnicity</b>	
Hispanic/Latino	313 (75.6%)
Non-Hispanic	97 (23.4%)
Not Reported	4 (1.0%)
<b>Gender Identity</b>	
Cisgender Male	233 (56.3%)
Cisgender Female	143 (34.5%)
Trans Woman	1 (0.2%)
Tran Man	2 (0.5%)
Not Reported	35 (8.5%)

- Egos who were enrolled at a PrEP follow-up visit were more likely to report intention to discuss PrEP with alters ( $p < 0.01$ ) than those who were enrolled at PrEP initiation.
- For egos, Hispanic/Latinx ethnicity did not increase likelihood of PrEP or future PrEP discussion with alter(s).
- For alters, Hispanic/Latinx ethnicity did increase likelihood of PrEP disclosure ( $p = 0.02$ ) and PrEP discussion ( $p = 0.01$ ).
- Average reported network closeness was significantly higher for egos and alters that shared Hispanic/Latinx ethnicity ( $p = 0.04$ ) than networks that did not ( $p = 0.07$ ).
- Age and average reported closeness of the ego were independently and jointly associated with an increase in the likelihood of future PrEP conversations ( $p = 0.02$  and  $p = 0.24$  respectively).

Figure 1: Visualization of Ego-Alter Relationships

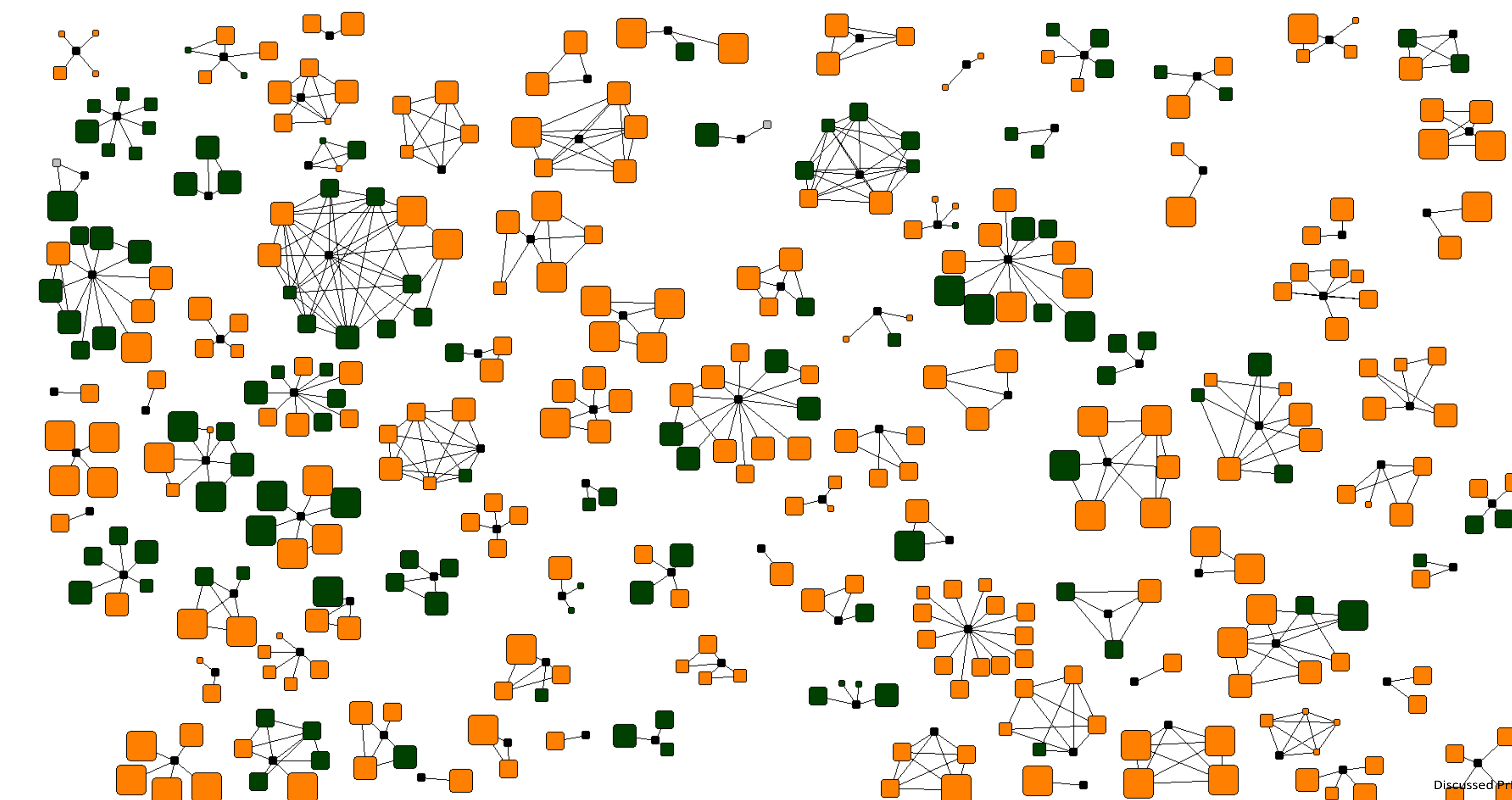


Figure 1. Network visualization of ego-alter relationships displays clients (egos) and their social networks (alters). Colors indicate whether PrEP was previously discussed with an alter (orange = not discussed, green = discussed). Square size indicates egos perceived closeness with the alter (larger square = close, smaller square = less close).

## Discussion

- Interventions that leverage the social capital of established PrEP patients to disseminate PrEP and HIV testing information may promote HIV prevention and PrEP-related conversations among priority groups.
- Hispanic/Latinx MSM, the majority of participants in this study, may prefer discussing PrEP and HIV prevention with members of their social networks who they feel closer to.
- Similarity in age and ethnicity may influence feelings of closeness among social network members.
- Individuals taking PrEP for at least three months may be more confident in disclosing and discussing their PrEP use than individuals who recently started or are about to start PrEP.

## Conclusion

We demonstrate the feasibility of disseminating HIV ST kits and PrEP information through SN based Strategy. Emotionally closely linked networks, with similar characteristics (e.g., age) may be most effective for this strategy.

This work was supported by an EHE Supplement through the Miami Center for AIDS Research (P30AI073961)

