HHS Public Access

Author manuscript

J Assoc Nurses AIDS Care. Author manuscript; available in PMC 2018 May 01.

Published in final edited form as:

J Assoc Nurses AIDS Care. 2017 ; 28(3): 428–430. doi:10.1016/j.jana.2017.01.003.

HIV pre-exposure prophylaxis programs incorporating social applications can reach at-risk men who have sex with men for successful linkage to care in Missouri, USA

Rupa R. Patel, MD, MPH[*],
PrEP Program Director and Assistant Professor, Division of Infectious Diseases, Washington University in St. Louis, St. Louis, Missouri, USA

Laura C. Harrison, BA,
Research Assistant, Division of Infectious Diseases, Washington University in St. Louis, St. Louis, Missouri, USA

Viraj V. Patel, MD, MPH,
Assistant Professor of Medicine, Division of General Internal Medicine, Montefiore Health System and Albert Einstein College of Medicine, Bronx, New York, USA

Philip A. Chan, MD, MS,
Assistant Professor of Medicine, Division of Infectious Diseases, Brown University, Providence, Rhode Island, USA

Kenneth H. Mayer, MD,
Professor of Medicine, Harvard Medical School, Co-Chair and Medical Research Director, The Fenway Institute, and Attending Physician, Beth Israel Deaconess Medical Center, Boston, Massachusetts, USA

Hilary E. Reno, MD, PhD, and
Assistant Professor, Division of Infectious Diseases, Washington University in St. Louis, St. Louis, Missouri, USA

Tyrell Manning, BA
HIV 360° Fellow for the Human Rights Campaign Foundation and Regional Integration Specialist, Williams and Associates, Inc., St. Louis, Missouri, USA

Keywords

African American; HIV pre-exposure prophylaxis (PrEP); HIV prevention; men who have sex with men (MSM); social applications

[*]Corresponding Author: Rupa Patel: rupapatel@wustl.edu.

Disclosures

The authors report no real or perceived vested interests that relate to this article that could be construed as a conflict of interest.

HIV disproportionately affects African American (AA) men who have sex with men (MSM) in the United States. In 2014, 38% of new HIV diagnoses among MSM were AA despite them representing only 13% of the United States population (Centers for Disease Control and Prevention, 2015; United States Census Bureau, 2011). These national trends are similar in St. Louis, Missouri, where AA MSM constituted 38% (88/228) of new HIV diagnoses in 2014 (Missouri Department of Health & Senior Services, 2014). Pre-exposure prophylaxis (PrEP) has demonstrated efficacy in preventing HIV transmission among MSM and can potentially address spread among AA MSM (Grant et al., 2010; McCormack et al., 2016). However, effective approaches to promoting PrEP for AA MSM are missing.

Geosocial networking (GSN) applications (apps) facilitate MSM meeting sexual partners, including AA MSM (Grosskopf, LeVasseur, & Glaser, 2014). Social network analysis conducted in St. Louis found GSN apps as prominent “venues” where young AA MSM met partners for condomless anal sexual intercourse (Patel et al., 2015). Furthermore, studies have found that these sites were highly acceptable to AA MSM for HIV prevention interventions, making these apps ideal venues for PrEP outreach (Holloway et al., 2014). Little information exists on the use of GSN apps for PrEP promotion or linkage to care. In this program brief, we describe the outcomes of HIV testing and PrEP linkage to care that involved the use of a GSN application as a part of a community-based organization’s (CBO) HIV prevention program for MSM in Missouri.

Program Description

The CBO, based in St. Louis, has provided HIV prevention education and services, including free HIV and sexually transmitted diseases (STD) testing, mainly to AA MSM ages 18 years and older. As part of outreach services, a CBO HIV testing GSN app profile was created to provide HIV testing information to anyone who contacted the profile. The profile page, affiliated with the CBO, listed HIV prevention facts and the CBO’s locations for HIV testing services in St. Louis. Through the app, the profile operator responded to sexual health questions, providing information or resources, and offered testing appointments and PrEP linkage to care when contacted by other app users. Interested persons received an HIV test at the CBO testing sites, either at the CBO’s main office in north St. Louis or the drop-in center, by a trained staff tester. Testing was offered 7 days a week.

Based on HIV testing results, persons were linked to HIV treatment or offered PrEP information and referred to a known PrEP provider in the area. The profile operator was a trained HIV testing counselor. HIV testing was performed using a rapid HIV antibody test (Clearview® COMPLETE HIV 1/2) using finger stick whole blood. The CBO’s protocols included responding to all individuals who reached out to the profile within 24 hours. All persons diagnosed with HIV or who desired PrEP received follow-up calls at 1 and 3 months from the HIV testing date to determine if they were in care or needed further assistance. All persons who were uninsured and desired PrEP were linked to an insurance navigator.

We evaluated HIV testing and linkage to PrEP care outcomes within this HIV prevention program. We performed a retrospective review of the number of clients who contacted the

app, clients who received HIV testing, demographics of those tested, percent with HIV positive tests, and people who linked to PrEP care from June 2015 to July 2016. Linked to PrEP care was defined as having attended a provider appointment to be evaluated for PrEP. The Washington University in St. Louis Institutional Review Board approved this study as exempt.

A total of 98 persons contacted the profile and 17% (17/98) received HIV testing within 72 hours of communication. Conversations through the app included answering questions, providing resources about HIV/STD prevention and care services, and offering HIV/STD testing. Median age of those tested was 24 years (range = 17 – 30 years) and 12% were college graduates.

Six (35%), people tested positive for HIV and 11 people tested HIV negative. All persons who tested HIV positive were AA MSM or transgender women between the ages of 17 and 27 years. All reported being unaware of their diagnosis and testing HIV negative in the previous year. All HIV-infected persons attended an appointment with an HIV provider within 3 months.

The 11 individuals who tested HIV negative were offered PrEP information immediately after being tested and, if they expressed interest, were linked to a PrEP provider in St. Louis. One individual did not express interest in PrEP care, stating he “did not feel it was for me.” Ten HIV-uninfected individuals were interested in PrEP care and six (60%) persons attended PrEP appointments at an academic infectious diseases clinic or a federally qualified health center with a PrEP program. Of those who linked to care, the age range was 23 to 30 years, 33% were college graduates, and 66% had pursued some college education beyond high school. All individuals who attended a PrEP appointment initiated PrEP. The main reasons for desiring PrEP were (a) individuals wanted to protect themselves more and (b) they felt they were at risk for getting HIV. Follow-up calls were performed and all persons who had initiated PrEP were still on PrEP 3 months later (Figure 1).

Five of the 10 persons who tested negative and desired PrEP were uninsured. Not having insurance was a reported barrier to attending a PrEP evaluation appointment. Eighty percent ($n = 4$) of those who had insurance linked to PrEP care whereas only 40% ($n = 2$) of the uninsured linked to PrEP care.

Conclusion

This pilot CBO-based HIV prevention program, incorporating the use of a GSN app, led to the detection of previously undiagnosed HIV-infected AA MSM, consistent with HIV prevalence seen in larger studies of AA MSM (CDC, 2010). Our pilot also showed an ability to connect people discovered on GSN apps to PrEP providers with successful PrEP initiation. In the pilot, being uninsured was a reported barrier to successful linkage to PrEP care, implying that disparities in insurance access may hinder PrEP uptake. Despite the small sample size, the project provided programmatic insights and demonstrated the potential to utilize GSN app approaches when planning future local PrEP implementation for MSM at greatest risk for HIV. The CBO plans to expand the program to other HIV

prevention staff as well as formalize the program for sustainable future implementation. Furthermore, the CBO plans to share program processes with other organizations to scale up such prevention outreach methods in the area. PrEP has the ability to halt transmission in high incident sexual networks, and outreach by GSN applications can help facilitate PrEP uptake.

References

Centers for Disease Control and Prevention. Prevalence and awareness of HIV infection among men who have sex with men --- 21 cities, United States, 2008. Morbidity and Mortality Weekly Report. 2010; 59(37):1201–1207. Retrieved from https://www.cdc.gov/mmwr/pdf/wk/mm5937.pdf. [PubMed: 20864920]

Centers for Disease Control and Prevention. Diagnoses of HIV infection in the United States and dependent areas, 2014. HIV Surveillance Report. 2015; 26 Retrieved from https://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-surveillance-report-us.pdf.

Grant RM, Lama JR, Anderson PL, McMahan V, Liu AY, Vargas L, … Glidden DV. Preexposure chemoprophylaxis for HIV prevention in men who have sex with men. New England Journal of Medicine. 2010; 363(27):2587–2599. DOI: 10.1056/NEJMoa1011205 [PubMed: 21091279]

Grosskopf NA, LeVasseur MT, Glaser DB. Use of the Internet and mobile-based “apps” for sex-seeking among men who have sex with men in New York City. American Journal of Men’s Health. 2014; 8(6):510–520. DOI: 10.1177/1557988314527311

Holloway IW, Rice E, Gibbs J, Winetrobe H, Dunlap S, Rhoades H. Acceptability of smartphone application-based HIV prevention among young men who have sex with men. AIDS and Behavior. 2014; 18(2):285–296. DOI: 10.1007/s10461-013-0671-1 [PubMed: 24292281]

McCormack S, Dunn DT, Desai M, Dolling DI, Gafos M, Gilson R, … Gill ON. Pre-exposure prophylaxis to prevent the acquisition of HIV-1 infection (PROUD): Effectiveness results from the pilot phase of a pragmatic open-label randomised trial. Lancet. 2016; 387(10013):53–60. DOI: 10.1016/s0140-6736(15)00056-2 [PubMed: 26364263]

Missouri Department of Health & Senior Services. 2014 St. Louis HIV Region. 2014 Epidemiologic profiles of HIV, STD and hepatitis in Missouri. 2014. Retrieved from http://health.mo.gov/data/hivstdaids/data.php

Patel, RR., Goodenberger, K., Tooba, R., Proctor, E., Luke, D., Dhand, A. The use of social network analysis to identify dissemination targets and enhance D&I research study recruitment for PrEP among MSM. Poster presented at the 8th Annual Conference on the Science of Dissemination and Implementation; Washington DC, USA. 2015.

United States Census Bureau. The Black population: 2010. 2010 census briefs. 2011. Retrieved from http://www.census.gov/prod/cen2010/briefs/c2010br-06.pdf

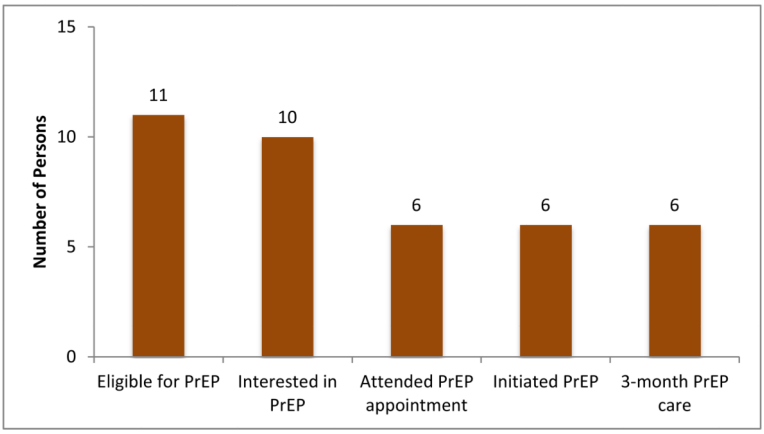

Figure 1.

HIV pre-exposure prophylaxis linkage to care among African American men who have sex with men by an HIV prevention program using geosocial networking applications

Note. PrEP = pre-exposure prophylaxis.