Research for HIV Testing

National HIV TESTING Day JUNE 27

UCSF Center for AIDS Prevention Studies
Division of Prevention Sciences

PRC PREVENTION RESEARCH CENTERS

Research for HIV Testing

This booklet is produced by UCSF Center for AIDS Prevention Studies and UCSF Prevention Research Center. You might use it to:

- Stay up-to-date on our latest research
- Provide materials in trainings and presentations
- Advocate for services and funding
- Write grants
- Develop new or modify existing HIV prevention programs
- Connect with us. The Investigators are listed for each study
- Contact us

Acronyms

NHTD: National HIV Testing Day

MSM: We use the acronym MSM to include all gay, same gender loving, bisexual and other men who have sex with men.

MSMW: We use the acronym MSMW to refer to all men who have sex with men and women. They may identify as gay, straight, bisexual, same gender loving, or prefer to use another term, or none at all.

Message from the Director

Knowing one's HIV status helps people stay healthy. Today there are more HIV testing options available than ever before. "My Test, My Way", the 2021 National HIV Testing Day (NHTD) theme, reinforces how individuals can take charge of their health by getting tested for HIV how, when, and where that works best for them.

On June 27th each year, researchers and staff at the Center for AIDS Prevention Studies (CAPS) and UCSF Prevention Research Center (PRC) join with other HIV stakeholders throughout the nation to observe NHTD, emphasizing and encouraging HIV testing by providing information on the latest research addressing HIV testing.

I am excited to share our newly updated HIV testing factsheet, titled *HIV Test Delivery in the United States*, which not only highlights the latest HIV testing rates by race/ethnicity, age, gender, and sexual orientation, but also interventions that aim to increase HIV testing across these populations. A read of the two-page factsheet will provide you with the latest information and research on routine HIV testing in clinical settings, as well as testing in non-clinical settings, pharmacies, and home self-testing, and recommended HIV testing strategies moving forward. See link to factsheet below on page 8.

Researchers at CAPS and PRC work to discover new and innovative strategies for those not currently reached by HIV testing efforts. On this NHTD, we are again excited to share our research accomplishments that focus on step one of ending the HIV epidemic (EHE) – people knowing their HIV status. As you can see, we are committed to research that: 1) addresses this need among diverse populations; 2) focuses on current and emerging testing strategies and technology; 3) is community-engaged (including in consultation with our community advisory board[1]); and, 4) is broadly disseminated and implemented among those who could most benefit from the research. While CAPS/PRC and other institutions conducting HIV research have made great strides improving our understanding of HIV testing facilitators and barriers, the latest estimates indicate that approximately 1.2 million people in the U.S. have HIV and about 13 percent of them don't know it and need testing.[2] If we want to reach our goal of EHE, it is imperative that the extraordinary progress that has been made in HIV prevention research over the last three decades must continue, specifically continuing to develop and disseminate diverse and innovative strategic approaches (e.g., routine testing, self-testing, etc.) to reach people living with HIV who don't know their status (e.g., social marketing, social networking, etc.).

In our commitment to continue such research, it is our hope that the self-testing, peer networks, community mobilization, testing in healthcare/clinical settings, and other research highlighted in this booklet will inform, inspire and empower people to consider "My test, My Way" and be tested for HIV. Sharing and implementing this research at the community level will no doubt help EHE!

Marguerita Lightfoot, PhD
CAPS/PRC Director
Division of Prevention Science Chief

1. UCSF Division of Prevention Science. Community Advisory Board.
2. HIV.gov. U.S. Statistics, Fast Facts.

Youth

Technology to Connect At-Risk Youth to Testing

Investigator: **Marguerita Lightfoot (PI)**

Peer education and outreach strategies have been successful at reducing sexual risk behavior and increasing the use of health resources in adolescents and other at-risk groups, including adults residing in census tracts where STI rates are high. A potential vehicle for outreach to adolescents is socially interactive technologies (e.g., text messages). Research Finding: We found that text messaging between peers is a feasible and acceptable strategy and has the potential for impacting HIV testing. Given the low number of youth accessing health care services and STI/HIV screening, innovative strategies such as this one are needed to address the barriers that exist and encourage connection with the healthcare system and STI screening.

Gay, Bisexual and MSM

Project T: Men who have Sex with Men (MSM) and HIV Self Testing

Investigators: **Marguerita Lightfoot (PI), Sheri Lippman (Co-PI), Nicholas Moss (Alameda County Department of Public Health)**

Project T aimed to enhance identification of undiagnosed HIV infection and increase linkage to HIV care among African American and Latino gay and other MSM in Alameda County. We enlisted 34 members of the African American and Latino MSM and Transgender communities to act as recruiters. Each was asked to identify 5 MSM peers they believe to be sexually active to complete a HIV self-test. A total of 143 self-test kits were distributed to social and sexual network members. Research Finding: Compared with MSM who used the County's sponsored testing programs, individuals reached through the peer-based self-testing strategy were significantly more likely to have never tested for HIV (3.51% vs. 0.41%, $P < 0.01$) and to report a positive test result (6.14% vs. 1.49%, $P < 0.01$).

Self Testing

Home-based lab collection for HIV pre-exposure prophylaxis (PrEP) + COVID-19 testing

Investigators: **Parya Saberi, Tor Nielands, Mallory Johnson, Wayne Stewart, Albert Liu, Hyman Scott**

Due to the COVID-19 pandemic, many clinics had limited lab appointments and some patients did not feel comfortable coming to the clinic to complete labs. We began offering patients who were on PrEP the option to complete one-time PrEP continuation labs and COVID-19 testing via home-based test kits. Test kits included: a dried blood spot card (for HIV antibody/antigen, serum creatinine, syphilis, and Hep C antibody, as needed); urine sample, throat and rectal swabs (for STIs); and a nasal swab (for SAR-CoV-2 PCR). This pilot study originated from a parent study "PrEP Optimization Intervention (PrEP-OI)" initiated by Parya Saberi and colleagues. PrEP-OI was initiated in 2018 to examine the impact of a PrEP panel management strategy involving a PrEP Coordinator and a web-based panel management tool on PrEP initiation in 12 SFDPH primary care clinics. The PrEP-OI study was fully underway when the San Francisco pandemic shelter-in-place orders went into effect in 2020. So far, 92 patients on PrEP have been enrolled. We will analyze results to examine the acceptability and feasibility of home-based testing among enrollees and determine if home-based testing will provide more testing options, not just during the pandemic, but also for those who may face barriers to attending lab visits or for clinics that have limited lab hours.

Late Diagnosis

Identifying Reasons for Late Diagnosis of HIV: An Academic Community Partnership to Improve Health Outcomes Investigator

Investigators: **Natalie Wilson (PI), Marguerita Lightfoot (Mentor)**

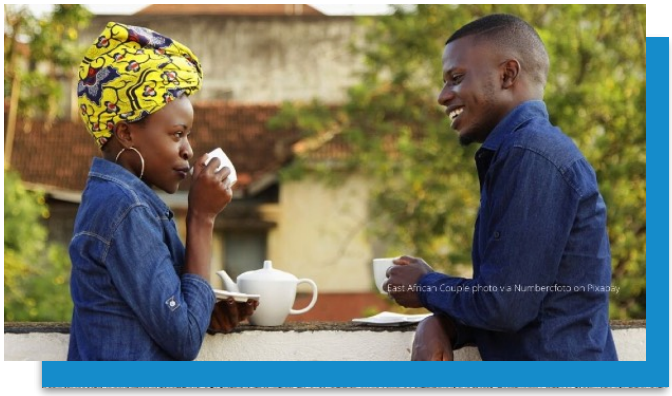
Late HIV diagnosis is associated with poor treatment outcomes and, in turn, less viral suppression, greater transmission of HIV to those who are not infected, and increased HIV-related morbidity and mortality. The goal of reducing HIV by increasing peoples' awareness of their HIV status cannot be achieved without addressing late diagnosis. Given the many individuals who are diagnosed late, the aim of this study is to elucidate the reasons for late diagnosis and to uncover strategies for increasing early detection of HIV. We will interview 20 late-diagnosed individuals and 20 individuals who were not diagnosed late. We will work in partnership with the Alameda County Public Health Department to examine the individual-, social-, and structural level factors that fuel late HIV diagnosis within a multilevel framework. This study will help us to develop public health strategies to address late diagnosis.

International

HIV-Testing Among Couples in Malwai

Investigator: **Amy Conroy**

Uptake of HIV testing services is less than ideal in Malawi with about 75% of women and 50% of men having ever tested as of 2010. This mixed methods study explored how couple dynamics could affect decisions to test for HIV in rural Malawi. Research finding: Participants with higher levels of relationship unity were less likely to test for HIV. This was consistent with qualitative data in that an HIV test signified a breach of trust and breakdown of the relationship.



HIV self-testing among young women in rural South Africa

Investigators: **Audrey Pettifor (UNC), Sheri Lippman (UCSF), Kathleen Kahn (Wits, South Africa)**

HIV testing rates in many hyper-endemic areas of sub-Saharan Africa are lower than needed to curtail the HIV epidemic. We conducted a randomized trial to assess whether women offered the choice of either HIV self-testing or clinic-based testing would test more frequently than women offered only clinic-based testing invitations. Women in the choice arm of the trial had the option of giving their friends and partners either HIV self-test kits or clinic-based testing invitation cards. Women in the clinic-based testing arm only had the option of providing their friends and partners with invitations to test at the clinic. In the choice arm, 95% of 141 women enrolled chose HIV self-testing; three months after the HIV self-tests and clinic invitations were provided, 92% had tested compared to only 43% of clinic-based testing participants. Ninety-four percent of participants in the choice arm invited peers and partners to test compared to 76% in the clinic-based arm. Overall, few male partners were invited to test; invitations to male partners were three times more common in the choice arm than the clinic-based testing arm. Giving young women and their friends and partners a choice increased testing uptake

International
Continued

Sukuma Ndoda (Stand up Man) HIV Self-Screening and Assisted Linkage Project for men in Johannesburg.

Investigators: **Sheri Lippman (UCSF), Jessica Grignon (I-Tech,UW)**

HIV testing rates among men remain below national targets in South Africa. We provided HIV self-testing (HIVST) kits to community health workers (CHWs) at 6 clinics in low-income areas of Johannesburg to distribute to men in the area who had not recently tested for HIV. CHWs at three of the clinics registered participants in an automated short message service (SMS) follow-up system – asking participants if they tested and linking them to care if positive. CHWs at the other three clinics followed up with participants personally to encourage testing and linkage to care. Preliminary research findings (final analyses ongoing): Among 4,793 eligible men who enrolled in the project, 62% had never tested for HIV. Overall, 83% reported back through the automated system or personally to the CHWs: 75% used the kits and 8% did not. Testing uptake in the clinic catchment areas more than doubled, increasing from 4% of all eligible men when only clinic-based testing was available to 9.9% when both HIVST and clinic-based testing were available. Test use was higher for men followed by CHW personally (99% vs 68% in SMS); however, significantly more men reported positive results in the SMS group, compared to the personal follow-up group (6.4% vs 2.0%), yielding more ART initiation in the SMS group as compared to personal follow-up (23 vs 9; $p<0.01$).

A peer-driven, social messaging intervention increased HIV testing in Zimbabwe

Investigator: Marguerita Lightfoot

In countries with high prevalence of HIV infection, like in Zimbabwe, adolescents presenting late for care with HIV infection have been becoming an increasingly common phenomenon. interventions designed to increase testing must assist youth in overcoming the numerous barriers. We engaged youth, aged 16 – 24 years, at an adolescent medicine clinic to develop and disseminate social media messages to their peers to encourage HIV testing. We examined the efficacy of the peer driven intervention to increase the number of new patients seeking HIV testing and the number of newly identified HIV cases. Research Finding: Post-intervention implementation, the number of patients seeking HIV testing increased, the proportion of new patients testing HIV-positive tripled and the proportion patients self-reporting a sexual risk indicator nearly doubled.

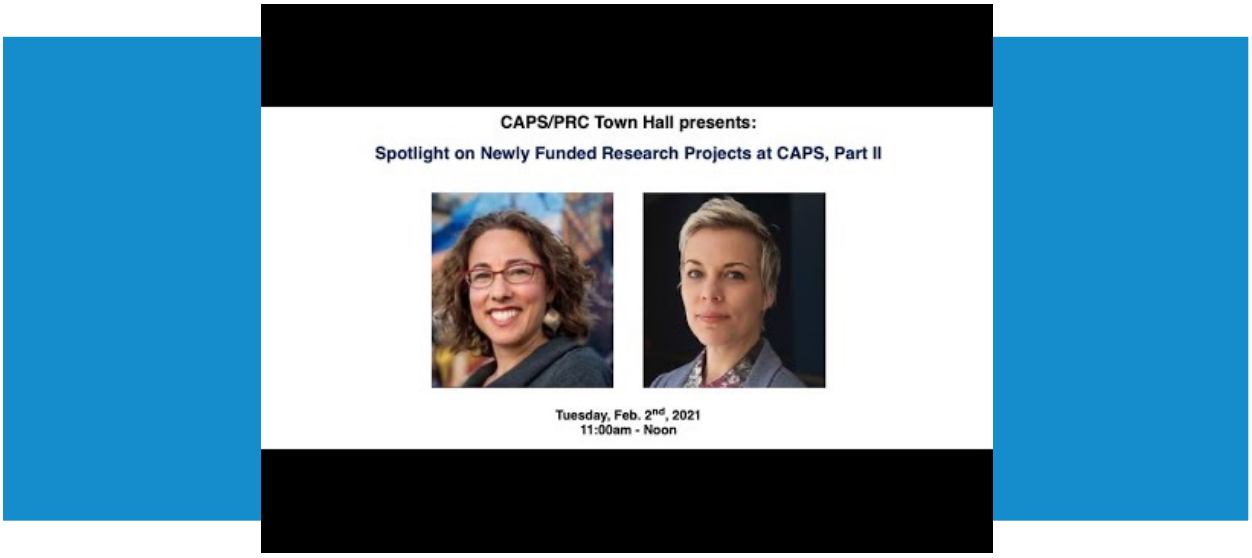
Additional Resources

Resources and Guidance Related to HIV and COVID-19

VIDEO. Spotlight on our newly funded research projects.

Reducing Intersectional Stigma Among Transgender Women in Brazil to Promote Uptake of HIV Testing and PrEP (R01, PI's: Lippman, Sevelius).

Training in Implementation Science Research to Improve PrEP Services for People at Risk for HIV (K24, PI: Lippman)



Fact Sheets - See our complete list of Fact Sheets

- HIV Testing in the U.S. (2021)
- Transwomen Women and HIV Prevention and Care (2021)

Survey Instruments and Scales- Topics include counseling and testing, healthcare providers, risk behavior, adherence, coping, substance use and knowledge/attitudes.

Transgender Resources - The HIV Testing Toolkit, Transgender Health Factsheets and Recommendations for Inclusive Data Collection of Transgender People in HIV Prevention.

FREE. Order a HIV Self-Test Kit in 3-minutes. (United States).

UCSF Anti-Racism Initiative
https://diversity.ucsf.edu/antiracism-initiative

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