



# Research for Youth HIV / AIDS Prevention



**CAPS**  
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PREVENTION STUDIES



## Research for Youth HIV / AIDS Prevention

This booklet is produced by the 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 training 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.

UCSF Center for AIDS Prevention Studies (CAPS)

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## Acronyms

**NYHAAD:** National Youth HIV/AIDS Awareness 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, heterosexual/straight, bisexual, same-gender loving, or prefer to use another term, or none at all.

# Structural Racism

## BEEM (Black Economic Equity Movement)

**Investigators:** Sheri A Lippman (MPI/UCSF); Marguerita Lightfoot (MPI/OHSU); Margaret Libby (MPI/MyPath); Emily Arnold (UCSF); Starley Shade (UCSF); Will Dow (UCB)

Black youth and young adults in the U.S. experience higher levels of poverty, illness, and discrimination than their white peers, with deep systemic social and structural inequities impeding their safe and healthy transition to adulthood. The resulting health inequities are many: Black young adults experience high mental health service needs but much less service utilization than their white peers, have higher rates of STI, and have less access to family planning. The goal of BEEM is to disrupt the social determinants of poverty in order to have a transformative impact on a healthy transition into adulthood. The intervention will provide Black youth (ages 18-24) with a Guaranteed Income and provide access to financial coaching and referral services, and determine the impact of Guaranteed Income and financial services on financial well-being, mental health, and utilization of mental health and sexual and reproductive health services.

<https://beemproject.org/>



# COVID-19

## Partner Violence, And COVID-19 On HIV Care Engagement Among Young Black Sexual Minority Men With HIV In The US South

**Investigators:** (PI) Susan Kegeles (UCSF) (PI) Erik Storholm (Cal State Univ San Diego); (co-I) Daniel Siconolfi (Rand Corporation); (co-I) Chadwick Campbell (Cal State Univ San Diego); (co-I) Wilson Vincent (Temple University) (co-I) Lance Pollack (UCSF)

Among sexual minority men, young Black sexual minority men are the most disproportionately impacted by new HIV infections. Intimate partner violence (IPV) is one of the most understudied factors that may exacerbate these disparities. Both IPV and substance use leading to IPV may help explain poorer Continued Care (CC) engagement among YBSMM+ and are likely to be exacerbated by the COVID-19 pandemic, which is having devastating health and economic impacts.

This study uses structural equation modeling to explore the associations between substance use and IPV and their impact on HIV care engagement, viral suppression, condomless anal sex, and to determine if distinct forms of resilience (global resiliency, coping skills, and social support) buffer associations between these relationships among YBSMM+ in the U.S. South. This study will shed new light on the associations between substance use, IPV, and CC outcomes and risk and subsequently aid in developing a resiliency and advocacy-based intervention that potentially reduces the impact of substance use and IPV on CC engagement and retention among YBSMM+.

## COVID-19 Continued

### Young Adult Perspectives on Sex, Dating, and PrEP Use During the Pandemic and Improving the Future of PrEP Care

**Investigators:** Christina E. Camp, Carrie T. Chan, Parya Saberi

Few studies have researched young adults' experiences taking HIV pre-exposure prophylaxis (PrEP) after the start of California's COVID-19 shelter-in-place (SIP) orders. This study examined the experiences of young adults with sex, dating, and PrEP use during SIP and their perceptions on how to improve PrEP care in this age group. PrEP users ages 18–29 living in California between April 2020 and June 2021 completed a quantitative survey (N=37) and one-on-one qualitative interviews (N=18). Over half of the survey participants reported trouble accessing PrEP care during SIP, citing difficulty obtaining medication refills, clinic appointments, and access to completing lab work. In qualitative interviews, participants expressed their preferences for more accessible PrEP service delivery across the PrEP care continuum. Despite pandemic SIP orders and trouble accessing PrEP services, young adults continued to engage in sexual behaviors.

To read the complete peer-reviewed article click on the link <https://link.springer.com/article/10.1007/s10461-022-03970-5>

DOI: [10.1097/QAI.0000000000002900](https://doi.org/10.1097/QAI.0000000000002900)

## PrEP

### Texas PrEP Implementation Study

**Investigators:** Susan Kegeles, Greg Rebchook, Robert Williams, Scott Tebbetts, Andres Maiorana

Texas has high rates of HIV infection despite the availability of PrEP. Too few young Black and Latino men who have sex with men (YBLMSM) take PrEP, adhere to PrEP, and continue PrEP use over time. This study involved collaboration with two CBOs and an organization running multiple PrEP clinics throughout the state. The three organizations used Core Elements of the Mpowerment Project (MP) to implement PrEP-enhanced activities for YBLMSM. The Mpowerment Project (MP) is an evidence-based, community-level intervention to facilitate the empowerment of young MSM and reduce HIV risk.

The goal of this project was to learn how organizations, including PrEP clinics, can successfully implement innovative activities to increase PrEP access, uptake and persistence by YBLMSM. We plan to share findings widely with PrEP clinics and MPs in Texas and throughout the US to help them successfully implement PrEP-enhanced MP activities.

<http://mpowerment.org/>

# HIV Testing and Care Engagement

## Perceptions of Risks and Benefits of Participating in HIV Cure-related Research among Diverse Youth and Young Adults Living with HIV in the United States

**Investigators:** Parya Saberi (PI), Karine Dubé, John Saucedo (co-I), Chad Campbell (Research Coordinator)

Researchers investigated attitudes toward participating in HIV cure-related research among a diverse national sample of young adults living with HIV (YLWH), using quantitative and qualitative approaches. They aimed to 1) explore the level of knowledge, interest, concerns, motivators, and deterrents of participating in HIV cure research among YLWH ages 18–29-year-old; 2) quantify willingness to participate in HIV cure research (addressing motivators and deterrents) and responses to real-world HIV cure research scenarios. They worked with a Youth Advisory Panel to help guide the research.

Study data provided essential information that can assist future researchers in the nuances of conducting HIV cure research with YLWH, informing them of recruitment strategies; guiding clinicians who wish to advise their patients about participation in HIV cure-related research; directing community leaders in community engagement methods; and allowing the voices of YLWH to be heard by the medical and research communities. 10 articles have been published as a result of this study.

<https://youth4cure.ucsf.edu/>

Published articles related to Youth4cure:

DOI: [10.1097/QAI.00000000000003128](https://doi.org/10.1097/QAI.00000000000003128), DOI [10.1097/QAI.00000000000003188](https://doi.org/10.1097/QAI.00000000000003188)  
DOI: [10.1089/AID.2022.0005](https://doi.org/10.1089/AID.2022.0005), DOI: [10.1097/QAI.00000000000003035](https://doi.org/10.1097/QAI.00000000000003035),  
DOI: [10.21037/mhealth-21-54](https://doi.org/10.21037/mhealth-21-54) DOI: [10.1089/AID.2021.0149](https://doi.org/10.1089/AID.2021.0149),  
DOI: [10.1080/09540121.2021.2001783](https://doi.org/10.1080/09540121.2021.2001783), DOI: [10.1089/AID.2020.0268](https://doi.org/10.1089/AID.2020.0268),  
DOI: [10.1097/QAI.00000000000003199](https://doi.org/10.1097/QAI.00000000000003199) DOI: [10.1016/j.jve.2021.100062](https://doi.org/10.1016/j.jve.2021.100062)

## What does it mean to be youth-friendly? Results from qualitative interviews with health care providers and clinic staff serving youth and young adults living with HIV

**Investigators:** Parya Saberi, Kristin Ming, Carol Dawson-Rose

More research regarding youth living with HIV (YLWH) and tailoring health care delivery to the unique and complex needs of this population is needed. Researchers conducted in-depth qualitative interviews with health care providers and staff members at clinics and organizations serving YLWH in the San Francisco Bay Area to examine facilitators of and barriers to engagement in care among YLWH at the system and provider/staff level, as well as the barriers to using technology-based forms of communication with YLWH to improve retention and engagement in care.

Various facilitators of and barriers to engagement in care among YLWH were noted: clinic location and service setting, flexible hours and use of technology, and nonjudgmental providers/staff. System-level challenges included the lack of technology use in organizations and clinics; provider/staff-level challenges included time constraints and familiarity with technology; and youth-level challenges included changing mobile telephone numbers and relationships with providers/staff. Results can provide guidance for clinics and institutions providing care for YLWH.



# Technology

And Mental Health, Substance Use, Care Engagement

## Food Insecurity and Unmet Needs Among Youth and Young Adults Living with HIV in the San Francisco Bay Area

**Investigators:** Christian Reeder, Torsten B. Neilands, Kartika Palar, Parya Saberi

CAPS faculty Parya Saberi and Torsten Neilands collaborated with Christian Reeder and Kartika Palar to examine food insecurity and unmet subsistence needs and their association with antiretroviral therapy adherence among youth and young adults living with HIV (YLWH).

Results from a cross-sectional survey of 101 YLWH (aged 18-29 years) found that approximately 51.7% of participants experienced at least one unmet subsistence need (difficulty finding enough to eat [36.6%], clothing [22.8%], place to sleep [21.8%], place to wash [17.8%], and bathroom [15.8%]), and 64.2% reported being food insecure. For every additional unmet need, the risk of very good/excellent adherence was reduced by 15% (RR = .85; 95% CI = .72-.99; p-value = .04). The risk of very good/excellent adherence was lowered by 39% (RR = .61; 95% CI = .43-.87; p-value = .005) among food insecure youth, compared with those who were food secure.



# Technology

And PrEP

## Comparing Mobile Health Strategies to Improve Pre-exposure Prophylaxis Use (PrEP) for HIV Prevention

**Investigators:** Ai Liu, Janet Myers, Kim Koester

Comparing Mobile Health Strategies to Improve Preexposure Prophylaxis Use (PrEP) for HIV Prevention Investigators: Ai Liu, Janet Myers, Kim Koester

Researchers compared the effectiveness of two mobile health (mHealth) strategies—PrEPmate and DOT Diary—across different theoretical models and intervention components designed to support PrEP adherence and continuation. Both strategies have shown promise, but patients, providers, and health system administrators currently lack evidence to determine which approach is most effective for supporting PrEP use among diverse patient populations. The study compared the effectiveness of PrEPmate versus DOT Diary when implemented in public health clinics and community health centers, which deliver significant volumes of PrEP to English- and Spanish-speaking African American and Latinx men who have sex with men and transgender individuals. These clinics face challenges with low and disparate levels of adherence and continuation.

Based on data from the demographically diverse, sexually active study cohort, researchers found that (a) PrEP adherence remained high over time (75% at 6 months and 50% or more at 12 months) for both PrEPmate and Dot Diary, (b) self-reported adherence was consistently high for both groups, along with protective tenofovir-diphosphate (TFV-DP) levels measured via dried blood spots, and (c) both tools were deemed acceptable by participants.

The researchers concluded that these findings provide evidence that both PrEPmate and Dot Diary effectively support PrEP use in real-world settings.

# Technology And Care Engagement

## Video-Counseling Intervention to Address HIV Care Engagement, Mental Health, and Substance Use Challenges: A Pilot Randomized Clinical Trial for Youth and Young Adults Living with HIV

**Investigators:** Parya Saberi, Caravella McCuistian, Emily Agnew, Angie R. Wootton, Dominique A. Legnitto Packard, Carol Dawson-Rose, Mallory O. Johnson, Valerie A. Gruber, and Torsten B. Neilands

Substance use (SU) and mental health (MH) hinder engagement in care and antiretroviral therapy (ART) adherence among youth and young adults living with HIV (YLWH) and potentially lead to increased HIV transmission and a future generation of immunodeficient adults with drug-resistant virus. Parya Saberi and colleagues implemented the Youth to Telehealth and Texting for Engagement in Care (Y2TEC) study to examine the feasibility and acceptability of a novel video-counseling series and accompanying text messages, designed to identify and address barriers to HIV care, and MH and SU challenges.

Fifty YLWH aged 18–29 enrolled and completed 455 (76%) video-counseling sessions; quantitative surveys were used to evaluate Y2TEC’s feasibility and acceptability at baseline and at 4 months (86% retained) and 8 months (75% retained). Y2TEC was feasible and acceptable with participants reporting high satisfaction with video counseling sessions (81-82%) and, at 4 months, slightly higher ART adherence and HIV knowledge, decreased depression and anxiety, and reduced stigma related to mental health and substance use.

## WYZ: A Mobile Health Application for Engagement in Care among Youth Living with HIV

**Investigators:** Parya Saberi (PI), Theodore Ruel (co-I), Torsten Neilands (co-I), Mallory Johnson (co-I), Xavier Erguera (Research Coordinator)

In the US, fewer than 6% of all youth living with HIV (YLWH) achieve HIV viral suppression. This health disparity extends to the entire HIV care continuum in that there is a strong association between younger age and later HIV diagnosis, lower engagement in care, lower levels of antiretroviral therapy (ART) adherence, and worse HIV clinical outcomes. In response to this critical public health dilemma, our research team proposed to develop a novel mobile health app to improve engagement in health care and ART adherence and to pilot test this mobile health app in 18–29-year-old YLWH. We conducted a pilot trial to assess the feasibility, acceptability, and preliminary clinical impact of the use of an app called WYZ (pronounced “wise”) among YLWH and their healthcare providers. We worked with a Youth Advisory Panel to help guide the research. 3 articles have been published as a result of this study.

Published articles related to WYZ:

DOI: [10.2196/26861](https://doi.org/10.2196/26861)

DOI: [10.3390/ijerph18084170](https://doi.org/10.3390/ijerph18084170)

DOI: [10.1136/bmjopen-2019-030473](https://doi.org/10.1136/bmjopen-2019-030473)



# Technology

## And Care Engagement Continued

### Intervention to Improve Virologic Suppression Among Youth (iVY)

**Investigators:** Parya Saberi, Tor Neilands (co-I), Valerie Gruber (co-I), Caravella McCuistian (co-I), and Mallory Johnson (co-I), Kristin Ming (Clinical Research Supervisor), Louis Smith (Research Coordinator), Celeste Balaban (Study Counselor)

Youth and young adults living with HIV (YLWH) in the U.S. face poorer treatment outcomes, with mental health (MH) and substance use (SU) challenges worsening care engagement and health disparities. Despite the urgent need, there is a nationwide shortage of MH professionals.

In partnership with the AIDS Healthcare Foundation and a Youth Advisory Panel, this study tests a youth-friendly, technology-based intervention in a randomized clinical trial (RCT) with 300 YLWH (18–29 years old). Participants will receive either video counseling plus an app or standard care, with outcomes assessed at 16 weeks. We aim to:

- 1) Compare HIV virologic suppression between intervention and control groups.
- 2) Evaluate MH and SU differences between groups.
- 3) Use an adaptive treatment strategy (ATS) to tailor support—intensifying counseling for non-responders or transitioning responders to app-only use.

This fully remote study seeks to improve HIV care by addressing MH and SU barriers with a personalized approach.

<https://ivy.ucsf.edu/>

DOI: [10.1136/bmjopen-2023-077676](https://doi.org/10.1136/bmjopen-2023-077676)

# Technology

## And Ending the HIV Epidemic

### Y2TEC: Youth to Text or Telehealth for Engagement in HIV Care

**Investigators:** Parya Saberi (co-PI), Carol Dawson-Rose (co-PI), Valerie Gruber (co-I), Torsten Neilands (co-I), Dominique Legnitto (Research Coordinator), Caravella McCuistian (Research Fellow), Angie Wooten (Study Social Worker)

Youth and young adults living with HIV (YLWH) face poorer health outcomes than older adults, partly due to a lack of youth-friendly care. Substance use (SU) can further impact engagement in care and adherence to HIV treatment.

This study explored whether technology—videoconferencing and text messaging—could improve healthcare experiences, address mental health (MH) and SU challenges, and enhance HIV care engagement for YLWH. We conducted 17 interviews with clinicians and staff from 8 San Francisco and Oakland clinics, identifying barriers at the system (technology access, clinic capacity), provider (privacy, comfort with tech), and youth (changing phone numbers, provider relationships) levels.

A pilot wait-list control trial tested a videoconferencing intervention with 12 counseling sessions plus text message support for resources, check-ins, and appointment reminders. Findings confirmed feasibility and acceptability, leading to six published articles. This study highlights the potential of tech-based interventions to support MH, SU, and HIV care for YLWH.

<https://y2tec.ucsf.edu/>



# Technology

## And Ending the HIV Epidemic (con't)

### Youth Ending the HIV Epidemic – Automated Directly Observed Therapy Pilot: Improving HIV Care Among Youth

**Investigators:** Parya Saberi, Kristin Ming (Clinical Research Supervisor), Louis Smith (Research Coordinator)

Youth and young adults living with HIV (YLWH) in the U.S. face challenges with virologic suppression and retention in care, increasing the risk of HIV transmission and long-term health issues.

This study pilots an innovative intervention combining directly observed therapy (DOT) and conditional economic incentives (CEIs) using a mobile health app with AI and facial recognition to support ART adherence.

We will:

- 1) Assess the feasibility and acceptability of the automated DOT-CEI (aDOT-CEI) intervention among 30 YLWH (ages 18–29) with unsuppressed viral loads.
- 2) Explore experiences of 10 YLWH using a DOT-CEI and 10 staff/providers from AIDS Healthcare Foundation (AHF) clinics to identify barriers, facilitators, and refinements for a future trial.

By enhancing ART adherence and virologic suppression, this intervention aims to reduce HIV transmission and improve health outcomes for YLWH.

DOI: [10.1371/journal.pone.0289919](https://doi.org/10.1371/journal.pone.0289919)

DOI: [10.1097/QAI.00000000000003397](https://doi.org/10.1097/QAI.00000000000003397)

DOI: [10.1371/journal.pone.0289919](https://doi.org/10.1371/journal.pone.0289919)

# International

### In Our Own Words: Peer-to-Peer Messaging to Increase Uptake of HIV Prevention Strategies among Adolescents in Kenya

**Investigators:** Hong-Ha Truong

In Kenya, the 2014 Demographic Health Survey revealed low levels of HIV knowledge and high levels of risk behavior among adolescent girls aged 15-19 years, generating a need to create a narrative that reflects what is salient to this population. Hong-Ha Truong and colleagues propose to leverage the cultural importance of role-play and live theater in Kenya to inform the development of public service announcement (PSA) creation workshops for adolescent girls in Kisumu County to increase HIV knowledge and decrease risk behaviors among their peers.

The mixed-methods approach 1) elicits adolescents' narratives regarding sexual health and HIV prevention, as voiced to peers; 2) characterizes determinants shaping adolescents' mental and behavioral HIV prevention models; and 3) assesses the feasibility and acceptability of HIV prevention PSA creation workshops, with the intent of integrating with existing HIV prevention programs and synergizing with the planned roll-out of PrEP in the study region. Narratives will potentially be used to improve engagement with prevention messages by their peers, which can enhance the uptake of future combination bio-behavioral interventions.

# International Continued

## Addressing the Continuum of Care and Prevention among High-Risk Thai Men

**Investigators:** Susan Kegeles, Scott Tebbetts

The HIV epidemic in Thailand is escalating among young men who have sex with men (YMSM). Given the suboptimal uptake of HIV testing and treatment services among YMSM, there are tremendous challenges in much-needed prevention efforts to improve linkage to care and achieve individual and community viral suppression to prevent onward HIV transmission. Based on a cultural adaptation of the evidence-based Mpowerment intervention, Susan Kegeles and colleagues developed and piloted HUG-M, a multi-level, theory-based intervention that diffuses social support and empowers the YMSM community in order to establish social norms supportive of risk reduction and biannual HIV testing.

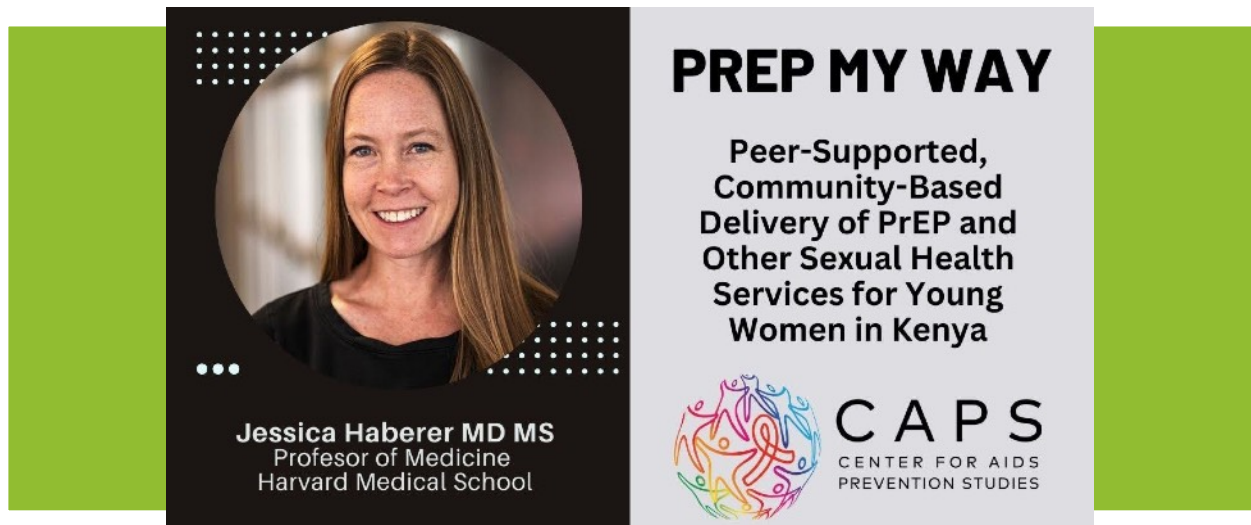
The project aims to (1) expand HUG-M to HUG-M+, a comprehensive, integrated, combination intervention that focuses on the entire Continuum of Prevention and Care, by adapting HUG-M to address YMSM living with HIV, and combining it with a Health System Intervention, (2) implement HUG-M+ for 2 years in collaboration with the Thailand Ministry of Public Health (MOPH) clinics, and (3) evaluate the efficacy of HUG-M+ in decreasing sexual risk behavior or using PrEP; increasing HIV testing; and increasing prompt, sustained engagement in care.

<http://mpowerment.org/>



## Additional Resources

**VIDEO.** PrEP My Way: Peer-Supported, Community-Based Delivery of PrEP and Other Sexual Health Services for Young Women in Kenya. Jessica Haberer, MD, MS, Professor of Medicine Harvard Medical School.



**VIDEO.** Community-Based Strategies for Scale-Up of Current and New HIV Prevention Methods for Adolescents and Young People in Cape Town, South Africa. Elzette Rousseau, PhD(c), Socio-Behavioural Scientist. University of Cape Town, South Africa.

**VIDEO.** Next Steps for Implementation Science in the HIV Prevention Space for Adolescents and Young Adults in Southern Africa. Audrey Pettifor, PhD, Professor and Associate Chair of Epidemiology University of North Carolina at Chapel Hill.

### Intervention Curricula

- [Y2TEC](#) - Youth to Text or Telehealth for Engagement in HIV Care. Enhance mental health support for youth living with HIV using Y2TEC's innovative video counseling. The Y2TEC website is all about putting clinic implementation into action.
- [The Mpowerment Project for young adult African American and Latino men](#)
- Project Style - [Services developed to engage and retain men of color living with HIV in high-quality care.](#)

**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.](#)

### UCSF Anti-Racism Initiative

<https://diversity.ucsf.edu/antiracism-initiative>



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