Remain
Retain · Maintain · Sustain

Exploring, Predicting, and Intervening on Long-Term Viral Suppression Electronically (EPI-LoVE)

IMPLEMENTED BY

Florida State University
The University of California, Los Angeles
The University of California, Irvine
One Cow Standing

SPONSORED BY

US National Institute of Allergy and Infectious Diseases (NIAID)
US National Institute on Drug Abuse (NIDA)

FLORIDA STATE UNIVERSITY · 1851 · FLORIDA STATE UNIVERSITY   IDHI Institute on Digital Health and Innovation   UCLA   UCIPT University of California Institute for Prediction Technology

THE SHORT OF IT

REMAIN is a smartphone app designed to assist underserved populations in staying in HIV care and maintaining their antiretroviral (ART) medication adherence.

The study will enroll approximately 1,000 participants

18+

Participants must be people living with HIV (PLWH) who are 18 years of age or older

Participants must reside in the United States

BACKGROUND

Despite the widespread availability of effective antiretroviral therapy (ART) in the United States, there remains **significant numbers of people living with HIV (PLWH) who fail to achieve and or maintain viral suppression (VS)**. Recent CDC data (2020) indicates persistent disparities with the lowest levels of VS among Black individuals (60.4%), people who inject drugs (55.3%), youth ages 13-24 (63.5%) and people residing in rural areas (63.6%). **This study will examine the overlapping epidemics, known as syndemics, underlying these outcomes including substance use, mental health, and structural and social barriers to HIV care including racial discrimination, stigma, and rural isolation.**

Given persistent health inequities related to HIV, research on challenges to ART adherence and sustained VS among key populations must go beyond individual level factors and **address the multi-faceted, multilevel barriers** that have thwarted progress in ending the HIV epidemic, to date. Digital cohorts, or **eCohorts, utilize the flexibility and capacity of the internet to complement traditional approaches to epidemiological research**, helping address some of the limitations and challenges associated with conventional cohort studies. Standard cohort studies, especially those with large sample sizes, tend to be time-consuming, costly, and prone to attrition, whereas **digital cohorts have the potential to reach, retain, and engage participants through simple and low burden communication methods**. Furthermore, self-reported information can be collected more frequently, allowing for timely tailored observation. Data collection can be administered using non-stigmatizing approaches, thus avoiding negative encounters with the health system. **For our e-cohort we will use an app (cell phone-based program) empirically proven to engage and retain cohorts remotely.**

OVERVIEW

The overarching goals of this research study are to:

1 Determine how to optimally enroll and retain a large diverse digital cohort of PLWH struggling to engage in or stay with care and maintain consistent VS.

2 Utilize the digital cohort to understand trajectories of HIV care engagement and to predict VNS and support return to care and VS.

3 Based on an individual's risk profile, offer tailored evidence-based interventions to be delivered through the REMAIN app.

We will assess not only traditional HIV care markers (linkage to care, retention in care, VS) but other factors that are associated with movements between the important stages in the HIV continuum of care. Changes in factors that are associated with these behaviors including reported experiences of stigma, racism, and violence and challenges with access to care related to mental health and substance use will also be followed to determine intersectional effects.

This study will enroll approximately 1,000 individuals aged 18 and older who are living with HIV to use the REMAIN app, adapted from HealthMpowerment (HMP) for up to 48 months. These participants will be nationally distributed and at high likelihood for, have a history of, or currently not virally suppressed.

STUDY AIMS

AIM 1

Recruit and retain a geographically and demographically **diverse cohort of PLWH** who are **sub optimally engaged in care** and with a history of, at high likelihood for, or not currently virally suppressed. This will be done by using digital campaigns, HIV care clinics and ongoing research cohort collaborations.

AIM 2

Evaluate longitudinal patterns of care engagement within the cohort by modeling advanced epidemiologic methods utilizing **remote collection of biomarkers of HIV** (e.g., viral load), **online surveys**, and brief, frequent **app-based "check-ins."**

AIM 3

Develop and deploy a suite of digital interventions targeting those in the cohort who are experiencing or at high likelihood for viral non-suppression.

APP HIGHLIGHTS

Forum

A space for participants to **engage in group conversations**. Forum discussions and polls **foster community support and peer-to-peer sharing** within the app. Includes ability to post, comment, like, and save content.

Test Kits

Researchers can measure viral suppression through local laboratories and clinics as well as **biospecimen collection kits mailed straight to the participant.** Admin can track orders, shipping, and verify results.

Ask the Team

Health care **providers answer anonymous user questions** and connect users to resources.

Incentives

REMAIN integrates **Tango e-gift cards to allow for streamlined reimbursement** to participants. Participants can pick out of 200+ popular digital gift cards. Once redeemed, **participants receive the digital gift cards instantly through email.** Incentive payments for each **participant are tracked on the REMAIN dashboard**, so the administrators know who should be paid and when.

APP HIGHLIGHTS

Habit Tracker

Allows participants to **track behaviors** that might influence their HIV medication adherence, such as **mood alcohol, substance use,** etc. Participants can note details about the behavior and identify patterns using the **stats and calendar features.**

Medication Tracker

Allows participants to track behaviors that might influence their HIV medication adherence, such as mood alcohol, substance use, etc. Participants can note details about the behavior and identify patterns using the stats and calendar features.

Mini Survey

Conduct **weekly, monthly, or ad hoc surveys** to get real-time information from participants.

MAIN PRINCIPAL INVESTIGATORS

Pamina M. Gorbach M.H.S, Dr.P.H.
Fielding School of Public Health and the David Geffen School of Medicine
The University of California, Los Angeles (UCLA)

Lisa B. Hightow-Weidman, MD, MPH
Institute on Digital Health and Innovation
Florida State University College of Nursing (FSU)

Sean Young, M.S., Ph.D
University of California Institute for Prediction Technology
The University of California, Irvine

TEAM COLLABORATORS

Kate Muessig, PhD | Co-Investigator
Florida State University College of Nursing
Institute on Digital Health and Innovation

Carissa D. Crews, MPH | Study Coordinator
Florida State University College of Nursing
Institute on Digital Health and Innovation

Aimee Rochelle, MPH | Study Manager
Florida State University College of Nursing
Institute on Digital Health and Innovation

Valerie El-Alfi, MA | Project Director
The University of California, Los Angeles
UCLA's Biobehavioral Assessment Research Center (BARC)

TEAM COLLABORATORS

Marjan Javanbakht, MPH, PhD | Co-Director
The University of California, Los Angeles, Fielding School of Public Health
 Department of Epidemiology

Arjuna Ugarte | Staff Research Associate III
The University of California, Irvine
UCI Department of Emergency Medicine

Henna Patani, MPH, MSITM, BDS | Epidemiologist
AIDS Healthcare Foundation

Vivian Go, PhD | Professor of Health Behavior
The University of North Carolina at Chapel Hill
Associate Director of the Center for AIDS Research Social and Behavioral
Science Core

Adam Sukhija-Cohen, PhD, MPH | Advocacy and Policy Research, Director
Public Health Division Research, AIDS Healthcare Foundation

Nora Rosenberg, PhD, MSPH | Infectious Diseases Epidemiologist
The University of North Carolina at Chapel Hill