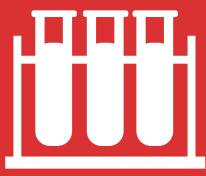


2020 ANNUAL REPORT

SCIENTIFIC ADVISORY BOARD



SHARC
SOUTHERN HIV AND ALCOHOL RESEARCH CONSORTIUM

LETTER FROM THE DIRECTOR

Dear colleagues, collaborators, and friends,

This report is provided to the SHARC Scientific Advisory Board and to Core SHARC Faculty and is a summary of SHARC-related projects and recent publications. Additional information about the SHARC will be presented to the Board and SHARC-affiliated faculty at the annual meeting.

In this report, we present a brief overview of the scope of SHARC-related research and training activities in the past year, followed by a summary of our core projects and affiliated projects that use or share SHARC-related resources. For each grant, we have included a brief overview and the project aims.

As you consider this information, the specific items that we want to prioritize for discussion at the upcoming meeting are:

- Identifying and prioritizing themes as we consider the P01 grant opportunities for our consortium
- Strategic plans to maintain core infrastructure that supports our research infrastructure and educational and training activity.

All of us at SHARC look forward to seeing you soon!



A handwritten signature in black ink that reads "Robert Cook". The signature is fluid and cursive, with "Robert" on the top line and "Cook" on the bottom line.

Robert Cook, MD, MPH

Director, Southern HIV and Alcohol Research Consortium (SHARC)

Professor of Epidemiology, College of Medicine and College of Public Health and Health Professions, University of Florida

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EXECUTIVE SUMMARY

The Southern HIV and Alcohol Research Consortium (SHARC) was established in 2012 as two linked U01 grants, funded by NIAAA, but without an administrative core. In 2013, we successfully competed for our own U24 administrative core which included funding to initiate the Florida Cohort.

From 2012-2015, SHARC began to hold annual research conferences, alternating between Gainesville and Miami, which helped to establish SHARC as a leader in HIV-related research and training in Florida. During this first phase of SHARC, we established a Scientific Advisory Board, who challenged SHARC to develop a mission statement, establish a formal data center, and to begin to build an identity that would distinguish it from other HIV-alcohol research centers.

SHARC also established a collaboration with the Center for Cognitive Aging and Memory at UF, led by Dr. Ronald Cohen who had previously been affiliated with the ARCH, an HIV-alcohol research center at Brown. SHARC became established as one of several HIV-alcohol center projects supported by NIAAA by either the U-grant mechanisms (Boston URBAN ARCH, Hopkins ARCH, Compass at Yale), or P-grants (Brown, LSU/Tulane).

When SHARC was up for renewal in 2017, the two U01 awards were combined into a single, very large U01, which now supports “The 30-Day Challenge”. The 30-Day Challenge is a large, complex project spanning multiple universities and collecting multiple types of clinical and behavioral data. A U24 core based at Brown received renewed funding in 2017, and included core data management and biostatistical support to the SHARC as well as the Brown ARCH. This large U01 and interconnected U24 grants represent the current “Core” of the SHARC.

Several ancillary projects were funded in 2017 from an RFA to extend existing HIV-alcohol consortia. A U01 grant (ACME) added a gut microbiome component to our 30-Day Challenge project, a U34 grant supported a community-based participatory research project focused on minority women and PrEP in South Florida, and a UH2/UH3 grant supported an mHealth intervention intended to improve PrEP uptake and adherence in young MSM who drink alcohol.

Also, during 2017-2020, several additional grants were funded and aligned with SHARC because of shared resources. These included an R01 to study marijuana and HIV (MAPLE), an R01 to study gut microbiome and brain outcomes in PLWH, an R21 to evaluate wrist-worn alcohol biosensors, an R34 to pilot a qigong intervention for PLWH in Miami, an R21 to evaluate molecular epidemiology related to HIV, and two contracts from the Florida Department of Health related to HIV, stigma, and molecular epidemiology. SHARC also received supplemental funding for two of the NIH grants, one from NIAAA to enroll a larger sample of transgender persons into our Florida Cohort, and the other from NIDA to obtain additional microbiome and cognitive assessments from persons participating in the MAPLE cohort.

SHARC investigators established a formal SHARC Center for Translational HIV Research at the University of Florida in 2018, and the Office of Research, Health Sciences Center, and several colleges have provided additional matched funding of over \$100,000 per year to support the SHARC research and training programs.

SHARC has also received some support from Florida International University (a research space in central Miami, MPH student support), from the University of Miami (CFAR-related resources, updated FMRI tools from the Department of Radiology), and from several county health departments (Orange, Hillsborough, Seminole) who have provided staff support for recruitment.

2020 AT A GLANCE

RESEARCH FUNDING AND PRODUCTIVITY

SHARC-related Grants (led by SHARC faculty and using SHARC resources) maintained research NIH research funding levels at over \$7 million in total annual NIH funding. At least 26 peer-reviewed manuscripts were published by SHARC-related faculty and trainees including the final results from the WHAT-if clinical trial and 12 manuscripts from the Florida Cohort project.

Significant progress was made for the ongoing U01 30-Day Challenge Project, including steady recruitment, excellent follow-up and retention, and initial analyses and results related to neuroimaging, alcohol biosensor data, and gut microbiome submitted to conferences. Working groups in neuroimaging, neurocognition, and laboratory data have been established and are meeting regularly. SHARC has an online concept system that now monitors 57 ongoing concepts involving data from our consortium projects.

TRAINING PROGRAMS

SHARC has been very involved in training programs and training grants. In 2017, SHARC investigators at the University of Florida received a T32 training grant from NIAAA that spans three colleges (Public Health and Health Professions, Nursing, and Health and Human Performance). Three SHARC faculty are currently the recipient of K-awards from NIAAA and NIDA, and they are mentored by senior SHARC faculty.

Our SHARC T32 program continues with five pre-docs and three post-docs involved in 2019-2020. Two of the postdocs have obtained faculty research positions, and two of the pre-docs are scheduled to graduate in Summer 2020. Our SHARC Professional Development Program (PDP) included over 55 trainees who participated in our SHARC seminars, working groups, and community activities. PhD students who achieved Level 3 status in our PDP and who were involved in our T32 program received post-doc positions at the University of Washington and Brown University, and another received an internship at Brown. One of our pre-docs obtained an F31 award from NIDA to study marijuana and HIV, two other pre-docs submitted F31 to NIAAA, one of which one is likely to be funded and the other resubmitted this summer. PhD students at UF, FIU, and the University of Nevada Reno used SHARC data from the Florida Cohort for their PhD dissertation work. Two post-docs involved in our training programs submitted K99/R00 grants, one to NIAAA and one to NCI. One of our pre-doctoral trainees has an F31, two F31 were submitted in January (funding decision pending), and another is expected to be submitted later in 2020. Two post-docs affiliated with SHARC submitted K99/R00 grants.

COMMUNITY ENGAGEMENT

Our Florida CPR (Community Provider Researcher) conference was attended by more than 150 participants. SHARC participated in two community events in Gainesville, and two in Miami. The FIU team continued to engage the community regularly as part of their CBPR project supported by a U34 from NIAAA.

SHARC STAFFING AND PERSONNEL

SHARC has continued to grow in terms of overall numbers of staff, trainees working on SHARC projects, and interns. In 2019-2020, at least 75 persons have been involved with SHARC-related work activities at UF including 8 full-time staff, 7 part-time staff, 12 core faculty, multiple pre-doctoral and post-doctoral

trainees, and interns. SHARC also supports at least 2 full-time each based at the University of South Florida (Tampa), at Florida International University, and at the University of Miami. Faculty from several additional universities in Florida, and persons representing community-based agencies and public health departments have participated in SHARC-related planning and research activities, especially around the Florida Cohort. Many of our participating faculty are expected to attend the annual SAB meeting virtually.

**\$7M
IN TOTAL
NIH FUNDING**

35 
**PUBLICATIONS
IN 2019-2020**

75+
**TEAM
MEMBERS
ACROSS FL**



In June 2019, some members of the SHARC team attended the 42nd Annual Research Society on Alcoholism (RSA) Meeting in Minneapolis, Minnesota.



In December 2019, the SHARC team volunteered and celebrated with the community during the Annual World AIDS Day Banquet in Gainesville, Florida. Dr. Cook received an award for his research and community efforts around the impacts of HIV and alcohol.



During the 14th Annual International Conference on HIV Treatment and Prevention Adherence in June 2019, Dr. Karina Villaba, a SHARC post-doctoral fellow at FIU, presented at her research during the conference in Miami Beach Florida, Florida.



Nana Seneadza, a Master of Science in Epidemiology candidate, presented her research at UF's Emerging Pathogens Institute Research Day in January 2020.

57
**ONGOING
CONCEPTS
PROJECTS**

8
**POST-DOCS (3)
& PRE-DOCS (5)
IN 2019-2020**

55+
**PDP PROGRAM
PARTICIPANTS
IN 2019-2020**

CHALLENGES OVER THE NEXT 5 YEARS

1. How does SHARC maintain the core infrastructure, much of which has been supported by U24 grants from NIAAA? Can SHARC provide more administrative support to partners in Miami, Tampa, Orlando, etc.? The demand for SHARC data, data support, and data sharing has grown tremendously and continues to grow. Significant administrative resource time is needed to address issues such as IRBs, data use agreements, ensuring data quality, etc.
2. How broad should SHARC seek to be? Does SHARC create even stronger infrastructure at the University of Florida or try to build additional research infrastructure and “branding” in Miami (where we have partners from multiple universities)? As SHARC considers support for more data and administrative support in locations such as Tampa, Orlando, or Miami, how does SHARC leverage matching support from major universities (especially in a time where university funding is likely to be cut in the next year) or from the Florida Department of Health? SHARC has opportunities to better incorporate a clinical HIV cohort at the University of Louisville. How does SHARC partner better with other large HIV-related research teams in Florida? Similarly, does SHARC’s HIV cohorts seek to extend even further into new locations in Florida or choose to focus on a limited number of communities?
3. How will the COVID-19 outbreak impact SHARC activities and research priorities? In early 2020, the COVID-19 outbreak had significantly affected SHARC’s recruitment and follow-up for several projects, although staff and trainees continue to have work to do (for at least a little while) such as working on existing data, polishing the manuals of operations, updating the study questionnaires, and completing additional trainings. SHARC plans to submit at least 2 requests for Coronavirus Supplements – one for the MAPLE study and one for either the U24 administrative core and/or the U01 30-Day Challenge project. Dr. Barve is also planning to submit a supplement request for the U01 ACME microbiome project. How much of this goes into SHARC’s specific planning for P01 renewal remains open for discussion.
4. What should be the focus for a P01 grant submission that is expected to be due in November of 2020. Notice of intent is located [here](#). The currently funded “core” SHARC grants (U01, U24, U24) support approximately \$2 million per year in direct costs and cover nearly all of the SHARC’s data support and administrative activities. If SHARC chooses to submit one P01 (\$1 million in direct costs/year), how much of that should support administration? Should SHARC focus on an intervention/implementation science theme that addresses diverse populations and ending the HIV epidemic? Should SHARC try to continue and maintain the research emphasis on comorbidity related to the gut-liver-brain axis and expertise in neuroimaging research? Or should SHARC consider applying for two P01s with separate leadership overall but linked administrative structures, with one P01 focused on more applied, effectiveness/implementation research and the other P01 focused on more clinical research (e.g. immunology, brain, liver, etc.)?

GRANTS AND AWARDS

CORE RESEARCH AWARDS

1. Southern HIV And Alcohol Research Consortium Administrative and Research Support Core (NIAAA U24AA022002)

PI: Cook, Robert L
Funding support: \$2,685,925
Term: 2018-2023

2. Behavioral Science and Biostatistics Resource Core for Alcohol-HIV Research (NIAAA U24AA022003)

PI: Kahler, Christopher
UF site PI: Brumback, Babette
Funding support: \$3,289,537
Term: 2016-2021

3. Effects of experimentally-induced reductions in alcohol consumption on brain cognitive, and clinical outcomes and motivation for changing drinking in older persons with HIV infection. (AKA "The 30-Day Challenge") (NIAAA U01AA020797)

MPI: Cook, Robert L; Cohen, Ronald A
FIU site PI: Devieux, Jessy
UM site PI: Govind, Varan
Funding support: \$3,192,785
Term: 2016-2021

SHARC AFFILIATED GRANTS (FUNDED BY NIAAA TO EXTEND THE HIV-ALCOHOL CONSORTIA)

1. Optimizing PrEP utilization among alcohol and other drug (AOD) using women of color (NIAAA U34AA026219)

PI: Devieux, Jessy
co-PI: Jean-Gilles, Michele; Rosenberg, Rhonda; Cook, Robert L; Community Advisory and Advocacy Board (CAAB)

3. Mobile combined alcohol and HIV prevention including PrEP uptake/adherence for high-risk young men (NIAAA UH2 AA026214-01 & UH3 AA02614-03)

PI: Leeman, Robert
Funding support: \$1,008,100

2. Alcohol associated comorbidities and microbiome evaluation in HIV (ACME HIV) (NIAAA U01AA026225)

PI: Barve, Shirish S; Cook, Robert L
Funding support: \$3,891,937
Term: 2017-2022

ADDITIONAL SHARC RELATED GRANTS AND CONTRACTS

1. Alcohol and HIV-associated Brain Dysfunction (NIAAA P01AA019072)

PI: Monti, Peter

UF site PI: Cohen, Ronald

Funding support: \$329,620 per year

Term: 2015-2020

2. Health outcomes and cognitive effects of marijuana use among persons living with HIV/AIDS (NIDA R01DA042069)

PI: Cook, Robert L

Funding support: \$3,250,581

Term: 2017-2022

3. Use of HIV Surveillance Data to address HIV Stigma and Improve HIV Care Outcomes in Florida (Florida Department of Health)

PI: Cook, Robert L

UF site PI: Cohen, Ronald

Funding support: \$139,151 per year

Term: 2018-2020

4. Role of Gut Microbial Dysbiosis and Aging on HIV-associated neurocognitive and brain dysfunction (NIA R01AG061065)

PI: Barve, Shirish; Cohen, Ronald;

Cook, Robert L

Funding support: \$3,844,740

Term: 2018-2023

5. Laboratory and field validation of a wrist worn alcohol biosensor among persons living with HIV (NIAAA R21AA027191)

PI: Wang, Yan

Funding support: \$230,912 per year

Term: 2018-2020

6. A mind-body intervention to reduce symptoms among people aging with HIV (NCCIH R34AT009966)

PI: Ibanez, Gladys

Funding support: \$201,418 for FY 2019

Term: 2018-2021

TRAINING GRANTS

1. Translational science training to reduce the impact of alcohol on HIV infection (NIAAA T32AA025877)

PI: Cook, Robert L; Leeman, Robert;

Lucero, Robert

Funding support: \$1,606,696

Term: 2018-2023

2. Feasibility of SBIRT for underserved HIV+ adults 50+ in primary care settings (NIDA K23DA039769)

PI: Ennis, Nicole

Primary Mentor: Cook, Robert L

Funding support: \$153,78

Term: 2016-2021

3. Cognitive and functional deficits associated with reduced cortical GABA in HIV-infected heavy drinkers (NIAAA K01AA025306)

PI: Porges, Eric

Primary Mentor: Cohen, Ronald

Funding support: \$112,500 per year

Term: 2016-2018

4. Medicaid Prior Authorization Policies for Chronic Hepatitis C Treatment in Vulnerable Populations (NIDA K01AA025306)

PI: Park, Haesuk

Primary Mentor: Cook, Robert L

Funding support: \$130,041 for FY 2018

Term: 2017-2022

CORE RESEARCH AWARDS

The SHARC Core Research Awards represent the primary awards from NIH-NIAAA that form the Consortia's centerpiece.

In 2020, SHARC Core Research Awards included (1) a large U24 Administrative Core which supports the overall core administration, the Florida Cohort, and the SHARC contact registry, (2) a large U01 project, "The 30-Day Challenge", and (3) a U24 awarded in 2017 to Brown University to provide data and analysis support to both the Brown ARCH and the SHARC

Overall core administration includes training activities, community engagement, travel, and pilot grant support. The funds provided by the NIH-NIAAA were leveraged to receive additional funding support from the University of Florida, Florida International University, and the University of Miami. For SHARC administrative functions and activities including IDC returns, the University of Florida provided over \$100,000 in additional research support.

Collectively, the SHARC Core Research Awards provide a large range of research infrastructure to support SHARC projects and programs.

SOUTHERN HIV AND ALCOHOL RESEARCH CONSORTIUM ADMINISTRATIVE AND RESEARCH SUPPORT CORE (NIAAA U24AA022002)

PROJECT SUMMARY

The Southern HIV Alcohol Research Consortium was established in 2012 as one of five national Consortia for HIV/AIDS and Alcohol Research Translation. The mission of SHARC is to improve health outcomes and reduce HIV transmission in persons affected by alcohol and HIV in Florida. Florida has the highest rate of new HIV infections in the US, a growing proportion of HIV persons over age 50, and broad population diversity across age, gender, race/ethnicity, and geography. Of these, 900 PLWH will be tracked prospectively using enhanced measures of alcohol consumption, neurocognition, liver disease, and HIV viral suppression.

The wide range of drinking behavior and population diversity within the Cohort will allow us to compare the impact of heavy drinking on HIV outcomes across diverse populations and communities. By partnering with at least eight distinct public health clinics and settings across the state, we are now poised to collaborate on a range of intervention and implementation studies targeting individuals and public health clinics and settings conference in Tampa now postponed 2021.

PROJECT UPDATES

SHARC activities and programs spread across the state of Florida and the country at multiple research institutions and community organizations.

ADMINISTRATIVE AND CORE ACTIVITIES

Under the Southern HIV and Alcohol Research Consortium Administrative and Research Support grant, the central administration team at the University of Florida in Gainesville, FL provides support services for finances, bill payments, personnel management, trainee oversight, overall communication efforts

(website, social media, news updates), and program coordination (seminars, professional development program).

SHARC communication efforts include the website, social media, and any marketing efforts. The SHARC website (located at sharc-research.org) showcases. Currently, SHARC engages in social networks Twitter, Facebook, and Instagram. Since late 2019 and early 2020, social media efforts have increased for SHARC. From April 2019 through March 2020, SHARC had over 42,000 impressions on social media accounts.

SHARC hosts a semester-based seminar series to provide educational and networking opportunities to faculty, staff, trainees, and students. In the previous year, SHARC hosted 10 seminars in the previous year with more than 250 persons in attendance. Topics included effects of aging, HIV infection, and psychosocial determinants on brain and cognitive health, translational behavioral research to improve health outcomes in youth living with HIV, and more.

Due to the COVID-19 outbreak, the SHARC spring 2020 seminar series experienced changes including a cancellation of the March and April seminar speakers. The May and June seminars have been transitioned to a virtual based presentation.

The SHARC Professional Development Program (PDP) is offered to all students, staff, and faculty at the University of Florida. The program aims to provide an opportunity for everyone to get involved with SHARC's mission by providing seminars, team meetings, mentoring, and collaboration. Since inception, SHARC PDP has had 66 participants.



Every semester, SHARC hosts speakers for the SHARC Seminar series. In February 2020, Kelly Cue Davis, PhD, an Associate Professor at Arizona State University, presented her research on coercive condom use resistance in a joint seminar with UF CARE.



At the end of each semester, SHARC celebrates PDP participants leveling up through the program during an award celebration. Dr. Cook and Ben Berey, a T32 Predoctoral Fellow, at the summer PDP celebration.



SHARC PDP participants come together for a monthly PDP meeting where they receive information about upcoming events, learn skills related to writing, presenting, and publishing their research, and network with fellow students and trainees.

The grant also provides support for recruitment efforts at SHARC. The team manages a participant contact registry through a secure, online platform at sharc-research.org/participate. The SHARC team also creates recruitment brochures and recruits for multiple studies at multiple locations simultaneously. Recruitment teams are based in Gainesville, Tampa, and Miami.

The SHARC Community Advisory Board and Community Engagement Working Group engage students, faculty, and local community residents in developing and supporting HIV awareness, relationships, education, and research. In the previous year, the Community Engagement Working Group participated in multiple events including 2019 PRIDE and Annual World AIDS Day Banquet in Gainesville and two events in Miami.

The SHARC Data Management and Concepts System provide data access and analyses support for SHARC hosted data. Data Management activities include data use agreements, dataset creation and storage, data analysis assistance, and online database system creation. The Concepts System (located at sharc-research.org/concepts) reviews, approves, and tracks ongoing analyses with SHARC data and ensures appropriate authorship and analyses results. Currently, there are 59 concepts in the Concepts System.

The Scientific Advisory Board was established to challenge SHARC in developing a mission statement, establishing a formal data center, and building an identity that would distinguish it from other HIV-alcohol research centers. Under the direction of the Scientific Advisory Board, SHARC oversees HIV and alcohol research, training, and community engagement in the state of Florida. As part of these initiatives, SHARC hosts the Annual Meeting and Research Conference to establish SHARC as a leader in HIV-related research and training in Florida. Due to the COVID-19 outbreak, the 2020 Research Conference in Tampa, FL is postponed to 2021.

At the SHARC Florida International University site, research infrastructure in the form of office space serves as a large source of recruitment. The office space in Midtown Miami is within walking distance of several HIV clinics. For the space, FIU provides financial support to house the research staff. The space provides work areas for a central research administrator, research coordinators, and students involved in research activities.

FLORIDA COHORT STUDY



The Southern HIV and Alcohol Research Consortium Administrative and Research Support grant provides the majority of funding for the Florida Cohort study.

In Phase 1 (2013-2017) of the Florida Cohort, SHARC completed enrollment of 934 persons living with HIV (PLWH). To date, the Florida Cohort has supported 14 peer-reviewed publications, including a summary of the study located [here](#).

Planning discussions for the upcoming “second wave” of Florida



Through collaboration with the Community Engagement Working Group, SHARC attended the annual 2020 Pride Day in Gainesville, Florida. The team greeted the community with educational materials, study recruitment, and fun activities!

Concept Tracking					
Main View	A Concept Title	A ConceptID	Category	A Keywords	A Lead Investigator
—	Assessing the Im...	FC001	HIV	Depression, m... Cesar Escobar...	Jeffrey Harman,...
Impact of indicat...	FC002	HIV	Life stress	Natalie Kelso	Robert Cook; E...
HIV-Related Stig...	FC003	HIV	Stigma, HIV dis...	Tenesha Avent	Gladys Ibanez; ...
The relationship...	FC004	Neuroscience	HIV C...	Memory compla...	Vaughn Bryant
Self-Reported M...	FC005	Substance Use	HIV	marijuana use ... Chukwuemeke...	Christa Cook; N...
Loneliness and S...	FC006	Substance Use	HIV	UCLA Lonelines...	Zachary Manne...
Information and...	FC007	Alcohol	HIV	cell phone inter...	Danielle Sharpe
Treatment engag...	FC008	HIV		incarceration H...	Gladys Ibanez
A mixed-methods...	FC009	Epidemiology	HIV	ART Adherence...	Eugene Dunne
Demographic diff...	FC010	HIV	Health Behavior Int...	mobile health, a...	Robert Lucero
Identifying the ps...	FC011	HIV		+ social s...	Jemma Frimpong...

SHARC staff in Gainesville, FL, manage a database to review, approve, and track ongoing analyses that utilize SHARC data. Faculty, investigators, students, and trainees can propose research ideas to receive access to SHARC data through the Concepts System. Currently, there are 59 concepts in the system.

Cohort enrollment included faculty from at least six universities in Florida as well as the state of Florida Department of Health.

To date, the Florida Cohort has supported 14 peer-reviewed publications, including a summary of the study located [here](#).

As of April 2020, eight additional publications using Florida Cohort data have been submitted to journals for review. The Florida Cohort has also played a substantial role for five PhD student dissertation projects at UF, FIU, and the University of Nevada Reno.

934
PLWH
ENROLLED
IN PHASE 1

14
TO DATE PEER
REVIEWED
PUBLICATIONS

8
ADDITIONAL
JOURNAL
SUBMISSIONS

The Florida Cohort papers have focused on various outcomes among PLWH including:

- chronic disease (e.g., hypertension, cancer screening) (Wijayabahu et al., 2019; Xu et al., 2019)
- substance use (e.g., alcohol-related problems, drug use) (Mannes et al., 2019; Mannes, Ferguson, et al., 2018; Sharpe et al., 2018)
- mobile app use and potential interest in mHealth interventions (Lucero et al., 2017; Sharpe et al., 2018)
- healthcare utilization (e.g., emergency room visits, hospitalizations) (Mannes et al., 2019a)
- HIV-related stigma (Algarin et al., 2019)
- PrEP awareness (Algarin et al., 2020)
- HIV medication adherence (Dunne et al., 2019; Mannes, Burrell, et al., 2018a)
- HIV viral suppression (Cook et al., 2017)

Findings have demonstrated clustering of risk factors and poor health outcomes, identified the most vulnerable subgroups of the population, and showed interest among PLWH in future mHealth intervention strategies.

For example, one study found that heavy drinking was a risk factor for suboptimal anti-retroviral adherence and poor viral suppression (Cook et al., 2017). The data also shows that stigma is a nuanced construct among persons living with HIV, and that the intersectionality of stigma with variables such as age, race, and ethnicity are important to consider in accessing HIV care.

The Florida Cohort registry has also been successful in helping to recruit participants for future research studies.

In March 2020, the Florida Cohort planned to initiate recruitment for the next week before the COVID-19 outbreak halted recruitment efforts. Plans are in place to enroll 600 persons from 4-5 communities of whom at least 200 persons will have current heavy alcohol use as measured by AUDIT or timeline follow-back. Data collection will occur at baseline, 6-months, and 12-months. Their information will be linked to data from the medical records and the Florida Department of Health. The assessment battery includes a separate “Alcohol Module” that will be administered to all current drinkers and includes an online timeline follow-back.

The SHARC Administrative and Research Support grant also includes Florida Cohort subcontracts to teams at Florida International University (Miami), the University of South Florida (Tampa), and the University of Central Florida (Orlando).

The FIU team has focused on establishing relationships with community centers and health clinics in Miami-Dade and Broward Counties. FIU has received letters of support for recruitment from 4 sites. The team at FIU participated in the submission of the Transgender Supplement application and the development of the Transgender-specific Module.

At USF, the grant supports recruitment activity for several SHARC projects, participation in authorship of Florida Cohort papers, supervision of medical students and fellows interested in SHARC data, and efforts to establish more local data support including extraction of medical record data.

The UCF team continues to meet routinely with SHARC faculty, SHARC-related PhD students, and U24 post docs/junior faculty to facilitate their development in qualitative methods and substance use research. UCF faculty collaborated on multiple paper publications and submissions, doctoral candidacy exam supervision, and one grant submission. The team continues to work on the development of relationships with the Orange County and Seminole County Health Departments and with Bliss Healthcare in Orlando.

With the COVID-19 outbreak pausing recruitment in April, SHARC investigators creating and finalizing a “light” version of the Florida Cohort that could be completed remotely with online or mailed consent and data collection by phone, online, or mailed survey. This shift will also allow SHARC to extend recruitment into harder-to-reach populations.

The Florida Cohort team is considering a Coronavirus Supplement application that would extend the Florida Cohort “light” version into Haitian Creole communities, obtain additional information about the relationship of coronavirus and related social distancing on health outcomes related to alcohol and HIV, and assess how alcohol is associated with clinical aspects of COVID-19.

CHALLENGES

1. SHARC administration

- How much to include in the P01 grant? How much to expect from non-NIH support from universities, indirect costs provided to the SHARC Center, or administrative costs budgeted into specific research project grants? How do we balance administrative support at the central site in Gainesville while trying to help build support for research teams outside of UF?

2. Florida Cohort directions and opportunities

- SHARC will present several ideas related to “cohorts” to the SAB and seek ideas related to the optimal way to include cohort ideas in the P01 vs. possible options to obtain funding for aspects of the cohort from additional sources and NIH institutes.

3. Data Management Activities

- How will SHARC continue to support the data management activities as SHARC moves forward, especially as SHARC accumulates more data from the 30-day challenge/ACME projects? Will SHARC have a data support core within a P01? Will SHARC submit separate proposals for data centers (e.g. [Biomedical Data Repository U24](#))?

BEHAVIORAL SCIENCE AND BIOSTATISTICS RESOURCE CORE FOR ALCOHOL-HIV RESEARCH (NIAAA U24AA022003)

PROJECT SUMMARY

This application is a renewal of U24 AA022003 (PI, Kahler), a resource core that has been coding mechanisms of behavior change in alcohol-HIV interventions conducted by the Brown University Alcohol Research Center on HIV (ARCH) and Yale University. In this renewal, the core has been expanded to incorporate a broader range of functions and to support work being done in the Southern HIV & Alcohol Research Consortium (SHARC) and work conducted in collaboration between the Brown ARCH and SHARC.

PROJECT UPDATES

The Behavioral Science and Biostatistics Resource Core for Alcohol-HIV Research grant provides support for a full-time data manager, biostatistical support across multiple projects, and support for students and trainees helping with data analyses and data management for SHARC-related projects.

Funding from the grant allows SHARC to increase access to data for trainees, to connect datasets across projects, and to share resources to bridge the gap between individual research projects data management and biostatistical support.

EFFECTS OF EXPERIMENTALLY-INDUCED REDUCTIONS IN ALCOHOL CONSUMPTION ON BRAIN COGNITIVE, AND CLINICAL OUTCOMES AND MOTIVATION FOR CHANGING DRINKING IN OLDER PERSONS WITH HIV INFECTION. (AKA “THE 30-DAY CHALLENGE”) (NIAAA U01AA020797)

PROJECT SUMMARY



This proposed study works to determine if reductions in alcohol consumption improves cognitive performance, brain functions and pathophysiology, and HIV-associated health outcomes. This study works 1) to demonstrate improved cognitive performance and brain function after 4-weeks of CM-induced alcohol reduction among HIV adults, followed by worsening of these effects 1-year later if heavy drinking resumes; 2) to demonstrate that cerebral metabolic and neuroinflammatory markers will also improve with CM-induced alcohol reduction and worsen if drinking resumes post-CM; and 3) Determine whether perceived benefits and challenges to drinking reduction

identified during motivational interviewing predict drinking reductions or relapse one-year post-CM. We will also determine whether changes in cerebral pathophysiology correspond with changes in cognition, brain function and serum inflammatory and liver biomarkers.

The Effects of Experimentally-induced Reductions in Alcohol Consumption on Brain Cognitive, and Clinical Outcomes and Motivation for Changing Drinking in Older Persons with HIV Infection grant aka the “30-Day Challenge” assesses the ability to reverse alcohol-related health consequences if persons living with HIV could stop (or reduce) drinking for 30-days or longer.

The 30-Day Challenge involves

1. a range of alcohol-related interventions (contingency management, motivational interviewing)
2. a detailed biological and clinical assessments (brain neuroimaging, liver fibroscans, blood measures of systemic inflammation, alcohol-related biomarkers)
3. surveys and neurocognitive tests

PROJECT UPDATES

The 30-Day Challenge experienced fairly steady recruitment at the University of Miami with an average of 2-3 new participants enrolled per month.

SHARC also began establishing the procedures for the 30-Day Challenge at FIU. The process proved more complicated than expected due to the overall complexity of the study, the time involved with multi-site IRBs, the different types of MRI scanners at the FIU and UF, and the need to hire and train additional study staff. By late 2019, the study procedures were finalized and three participants were enrolled in the 30-Day Challenge study at FIU. In early 2020, two additional persons were enrolled. Several persons were scheduled for an enrollment visit at the FIU site when efforts were halted due to the COVID-19 outbreak.

A summary of enrollment and retention will be provided at the SAB meeting, overall it was much better than the previous year but still had room for improvement:

The 30-Day Challenge study also provides data and samples for the ACME project, a U01 project supported by NIAAA and co-led by Drs. Barve and Cook.

During the previous year, several working groups were established that include scientists, trainees, and staff from multiple research settings. These groups have met monthly, discussed preliminary data, and brainstormed ideas for a “central database” that will house key data from the study that is currently held in several different locations.

The working groups include a Neurocognitive Working Group, Neuroimaging Working Group, Microbiome Working Group, and a Biomedical Laboratory Working Group.

The Neuroimaging Working Group submitted a symposium to the RSA 2020 conference. While the symposium was not accepted, the individual abstracts were accepted to the conference.

The 30-Day Challenge study also held several meetings related to data sharing and authorships, including investigators in the ACME 1 (Russia) and ACME 2 (Florida) teams.

The 30-Day Challenge study held a meeting with the core study co-investigators and biostatisticians to discuss the pros and cons of continuing contingency management from 30-days to 90-days and the issues related to sample size.

In regards to the pros and cons of continuing contingency management from 30-days to 90-days, the 30-Day Challenge study originally proposed 30-days, changed to 90-days for the first 10 participants per the request of the SAB, but then came back to 30-days due to participant retention issues and the cost/

**2-3
NEW PARTICIPANTS
PER MONTH
AT UM**

**FIU SITE
ESTABLISHED
FOR 30-DAY
CHALLENGE**

benefit assessment of continuing CM to 90 days.

Discussions about the sample size found that the most valuable assessments in the study include the baseline and 30-day time points and that the study was likely to enroll an additional 30-40 participants before the end of the study. Due to the COVID-19 outbreak, the 30-Day Challenge study enrollment was halted; however, the current enrollment numbers should be sufficient to make conclusions regarding the key specific aims of the study.

The halt in participant contact due to the COVID-19 outbreak has affected data collection for approximately five participants, who had completed baseline assessments. The 30-Day Challenge study team is able to obtain information via surveys on the phone, but some time points will be missing for the neuroimaging and biological assessments.

At this time, it is unclear if the NIH will extend the original project dates. Based on the SHARC renewal including new project number, there is a good possibility for a no-cost extension at the end of the original funding period (summer 2021). The no-cost extension would allow the 30-Day Challenge study to enroll additional participants and obtain outcome assessments at 30- and 90-days.

Several pre-doctoral trainees and post-docs are using data from the 30-Day Challenge project and are writing training grants including an F31 (to be resubmitted to NIAAA) and a K99/R00 (to be submitted to NIAAA in fall 2020).

Initial analyses from the 30-Day Challenge show significant reductions in some, but not all, biomarkers related to inflammation 30-days after enrollment.

Initial analyses of the neuroimaging scans and neurocognitive data are ongoing. There is nothing "dramatic" to date, but it is too early to assess specific differences related to drinking cessation.

The 30-Day Challenge is poised to complete additional data analyses in the final year of the project. The final data set will be nearly one-of-a-kind in terms of the breadth of behavioral and biological information obtained at multiple time points from individuals who change drinking.

CHALLENGES

1. Central Database Consideration

- How can SHARC create and support a central database that includes information from neuroimaging, neurocognitive data, biological studies (immunology, inflammation, microbial translocation), alcohol survey data, SCRAM biosensor data, gut microbiome?

2. Maximize Efforts in Final Year

- Should SHARC try to maximize all efforts in the final year of the project, even if that spends down the resources? Or should SHARC utilize a more strategic spending and enrollment plan that assumes SHARC will have the option for a no-cost extension at the end of the current funding period?

3. End of the Study

- What happens after the end of the study? The intervention has been very successful in helping persons to quit or reduce drinking, and many persons have continued to drink less even after the CM has stopped.

TWO IDEAS THAT SHARC WILL PRESENT TO THE SAB INCLUDE:

1. attempt to transfer the ideas of the 30-day challenge to a more applied application that could be used in clinical and public health settings, but still involve components of contingency management, monitoring with biosensors or breathalyzers, and MI
2. enroll the current and previous participants of this study into a longitudinal cohort, together with persons from other HIV-neuroimaging studies SHARC is involved with (e.g. ARCH) so that SHARC can continue to follow brain, cognitive, and other biological outcomes over an extended period of time

SHARC AFFILIATED GRANTS (FUNDED BY NIAAA TO EXTEND THE HIV-ALCOHOL CONSORTIA)

In 2017, three projects funded were directly linked to SHARC infrastructure: (1) a U34 - PI: Devieux, (2) a U01 - PIs: Barve and Cook, and (3) a UH2/UH3 - PI: Leeman.

OPTIMIZING PREP UTILIZATION AMONG ALCOHOL AND OTHER DRUG (AOD) USING WOMEN OF COLOR (NIAAA U34AA026219)

PROJECT SUMMARY

AIM 1: Identify perceived needs, priorities, barriers, and community strengths in the implementation of HIV prevention programs, with the development of a PrEP continuum care model, by conducting a summit to engage a diverse range of HIV- and HIV+ women of color, health care providers and community stakeholders.

AIM 2: Produce a replicable implementation program, including manuals, materials, screening and assessment instruments, and procedures, through the formation of a Community Advisory and Advocacy Board (CAAB) from summit participants, who will participate in a 2-day orientation training workshop and form working groups with research team members to formulate study methods and the intervention model.

AIM 3: Conduct an exploratory pilot of the PrEP model, implemented by the CAAB, in Broward and Miami-Dade for fidelity, feasibility, and acceptability, among 120 multi-ethnic women of color in South Florida (Primarily AA, Latina, Haitian). PrEP uptake, adherence, and retention in care will be measured over a 6-month period.

PROJECT UPDATES

Aims 1 and 2 were successfully completed during years 1 and 2 of the study.

A total of 273 community stakeholders and CBO health providers from Miami-Dade, Broward, and Palm Beach counties participated in the Summit. Due to significant gaps in knowledge about HIV prevention methods and biomedical options in the targeted communities, an exploratory survey was developed to inform intervention development. Measures included questions on access to sexual health services, including PrEP, patterns of use of these services,

**170
WOMEN
RECRUITED IN
THE COMMUNITY**

perceived barriers to and facilitators of adherence to care, history of AOD use and attitudes, sexual behavior, HIV knowledge and attitudes, stigma and discrimination, peer norms, and problems navigating community services.

A community sample of 170 women recruited from CBOs serving the African American, Latinx, and Haitian communities participated in the survey. The CAAB and research team developed a multi-level intervention: (1) the individual woman taking PrEP, (2) the community health care providers, and (3) the general public. At the individual level, the “PrEP Master” intervention is an individually administered motivational and problem-solving intervention that takes place in face to face sessions and over the phone during the first 8 weeks after PrEP initiation (See Figure 1).

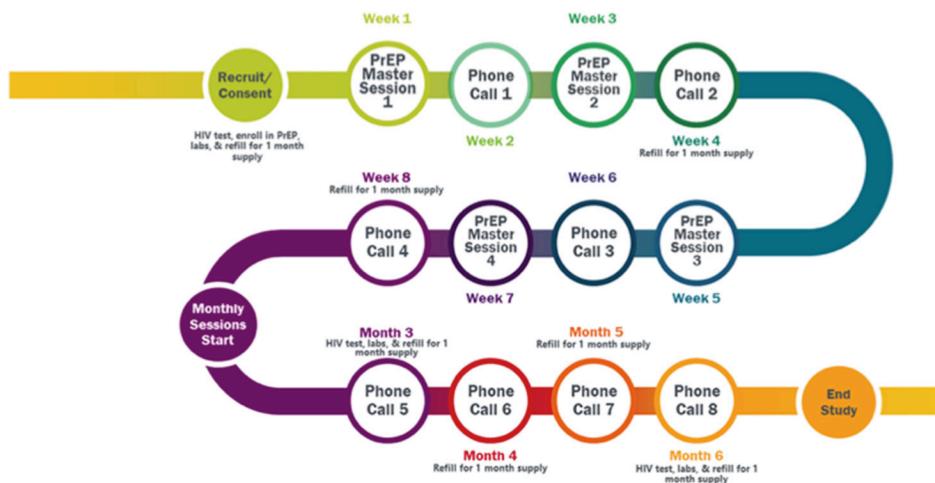


Figure 1- Demographic Characteristics of “PrEP Master” Intervention Participants

The provider and general public interventions center around video presentations with specific content developed and written by CAAB members and the research team. For prescribing providers, the intervention aims to educate about PrEP, increase enthusiasm about ending the HIV epidemic in the high prevalence area of South Florida, and sensitize providers to the specific vulnerabilities experienced by women of color.

The videos geared toward Latina, African American, and Haitian women are written in Spanish, English and Haitian Creole, respectively, and use culturally relevant expressions and themes to educate about PrEP. It is envisioned that these will be widely disseminated and may be seen in health care waiting

Insight from Process Evaluations (n=18)

Motivations to Enroll & Take PrEP

- Many participants (61%) reported enrolling in the study to learn.
- Most participants (66.7%) were motivated to take PrEP to protect themselves from HIV.
- 33.3% were motivated by lack of trust in their sexual partners.
- Other reasons stated were knowledge of their risky sexual behaviors, having HIV+ family members, & being curious.

Difficulties/Barriers to PrEP Utilization

- 33% of the participants reported no difficulties or barriers
- The remaining 66.7% reported barriers to utilization to be:
 - Nausea/headaches
 - Provider hesitancy
 - Fear of side effects
 - Drug addiction
 - Hiding it from partner

Study Satisfaction

- 94% (17) of participants liked everything about the study while 6% (1) felt the sessions were too long.
- Learning new information (61%) was the main thing participants enjoyed about the intervention.
- 33.3% stated that they enjoyed talking to the interventionist and the sessions were therapeutic.

rooms throughout South Florida. To date 30 AA women have been enrolled in the individual level PrEP Master intervention, 15 have completed 3-month follow up visits and 2 had completed the study (6-month follow up visit) prior to the suspension of research activities due to COVID-19. Insights from the Process Evaluations indicate that the intervention is well received (See Figure 2).

As a community-based participatory research study, all activities are co-authored with the CAAB. One outcome of CAAB involvement has been to increase the University-Community partnership. Specifically, one of the CAAB members, Vanessa Mills, COO of a community-based organization was awarded a small grant from the FIU RCMI to assist with data analysis leading to improved health outcomes. Other CAAB members have presented preliminary results at professional organization meetings such as the Florida Nurses Association, the IPAC, and the NMAC Biomedical Summit.

CHALLENGES

The COVID-19 outbreak has caused a slow down in intervention activities as the study staff modifies procedures to be fully remotely administered. The partnering health clinic remains open, and providers are available to continue monitoring patients taking PrEP.

ALCOHOL ASSOCIATED COMORBIDITIES AND MICROBIOME EVALUATION IN HIV (ACME HIV) (NIAAA U01AA026225)

PROJECT SUMMARY



Heavy alcohol drinking and HIV-1 infection are independently associated with the development of abnormalities in the brain function and cognition, and increasing evidence indicates that the combinatorial effects of HIV infection and alcohol are likely to worsen these abnormalities. There is limited understanding of the interactive effects of heavy alcohol drinking and HIV-1 infection on gut dysbiosis and the longitudinal qualitative and quantitative determinants of dysbiosis.

Accordingly, we pursue a unifying hypothesis that in HIV-infected individuals, heavy alcohol use compounds gut dysbiosis and consequent peripheral immune inflammation leading to exacerbation of neuro-inflammation and cognitive dysfunction.

We will complete the following Specific Aims among HIV heavy drinkers:

AIM 1: To assess longitudinal qualitative and quantitative changes in the gut microbiome associated

Entire Sample (n=30)	
Mean age	= 31.4
Marital Status	= 73.3 % Single
Education	= 50% Some high school or less
Unemployed	= 56.7%
Income	= 70% make less than \$9999/yr
Homeless (ever)	= 66.7 %
Incarcerated (ever)	= 63.3%
Inpatient (ever)	= 43.3%

Figure 2 - Results from the individual intervention process evaluations

with very heavy alcohol consumption.

AIM 2: To determine the impact of HIV infection and alcohol abuse induced gut dysbiosis on intestinal permeability, microbial translocation, and resultant peripheral endotoxemia, immune activation and inflammation.

PROJECT UPDATES

The ACME team participated in group discussions with the Russia ARCH team, led by Matt Frieberg. Many samples from both the 30-Day Challenge project and the MAPLE study have been submitted to the team at the University of Louisville. A summary of data obtained by the Louisville team and the samples processed to date (as of March, 2020) can be found in Figure 3.

ACME (Florida) Sample Update - Louisville

PROJECT	SAMPLE TYPE	TIME POINT	# OF SAMPLES	SAMPLES SEQUENCED	Samples yet to be analyzed	SAMPLES ANALYZED
ACME 2/2 (30 Day Challenge)	STOOL	T0	27	10	17	COMPLETED - 10
		T1	25	10	15	COMPLETED - 10
		T2	25	11	14	COMPLETED - 11
		T3	15	5	10	COMPLETED - 5
		TOTAL	92	36	56	36
	PLASMA	T0	10	ALL ANALYZED	Cytokine – 20-PLEX IFABP sCD14 LBP CRP SDF-1 α sCD27	
		T1	11			
		T2	9			
		T3	6			
		TOTAL	36			

Figure 3 - Summary of Data for ACME from the University of Louisville team

Some preliminary data suggests a strong correlation between certain types of gut bacteria and markers of systemic inflammation. The ACME team should complete more abstracts in this area later in 2020. Richa Singhal, a post-doctoral researcher affiliated with Dr. Barve's team, submitted an abstract to RSA that was accepted: Metagenomic Profiling of Patients Living with HIV and Heavy Alcohol Consumption. The abstract used samples from ACME and MAPLE studies and compared markers of dysbiosis and systemic inflammation according to HIV status (yes/no) and heavy drinking status (yes/no).

The ACME team is also having discussions about the appropriate "control" group to use in studies that include mostly PLWH. For any comparisons specific to HIV, there needs to be control participants who are similar to the HIV+ participants. This is a strength in the current data linked to the 30-Day Challenge, in that both studies have HIV+ and HIV- participants. Vaughn Bryant, PhD, a post-doctoral researcher at UF, plans to submit a K99/R00 later in 2020 to help analyze data from the combined ACME and 30-Day Challenge projects.

The ACME team has an ongoing Microbiome Working Group and plan to start a Biomedical Working Group with the CFAR at the University of Miami. Within the next year, ACME expects to have an outstanding dataset, but there will be a need for funding support to manage and share the data. ACME will also need data analysts and researchers capable of asking questions and writing papers with the data.

CHALLENGES

Dr. Barve's team has some preliminary data suggesting a strong correlation between certain types of gut bacteria and markers of systemic inflammation. SHARC should complete more abstracts in this area later in 2020, and the team is debating the optimal time to publish (now vs. wait until the full sample is recruited).

The ACME team also aims to integrate PLWH at the University of Louisville into SHARC's other clinical and HIV cohort studies. Dr. Barve has partners in infectious diseases and has enrolled at least 50 PLWH, who completed the AUDIT C and who also provided blood and stool samples, from the University of Louisville Clinic.

AMCE seeks to harmonize measures, including neuroimaging measures, in order to ultimately have a large database with gut microbiome data from different clinics but with common measures related to alcohol and HIV. How much effort should ACME put into truly merging these populations, and how would ACME integrate this population into future projects?

ACME wants to understand how the gut microbiome plays a role in future P01 grants. Does the team incorporate some aspect of microbiome data collection? If the Russia ARCH team plans to do an intervention study related to microbiome, should ACME propose to do something similar in Florida? Or does ACME focus efforts into creating a microbiome data repository that can be used to analyze and interpret the currently collected data.

MOBILE COMBINED ALCOHOL AND HIV PREVENTION INCLUDING PREP UPTAKE/ADHERENCE FOR HIGH-RISK YOUNG MEN (NIAAA UH2 AA026214-01 &UH3 AA02614-03)

PROJECT SUMMARY

ANCHORS



UH2 PHASE

AIM 1: Collect alcohol and sexual activity data via web survey from 683 young MSM to yield normative data for the alcohol and HIV preventive intervention in UH3. By recruiting at least 80 MSM from a 50-mile radius, who are open to PrEP and likely to be eligible for the UH3 phase, the survey will also help to establish feasibility.

AIM 2: Conduct focus groups and individual interviews with young MSM who drink regularly to inform the content of the alcohol and HIV preventive intervention tested in the UH3 phase and ensure the intervention is culturally appropriate for MSM.

AIM 3: The combined alcohol/HIV preventive intervention will be finalized based on the web survey and focus groups. Preliminary testing (N=10) will establish usability, acceptability and correct any functionality issues.

UH3 PHASE

PRIMARY AIM 1: Test a hypothesis that greater reductions in drinks per week (Aim 1a) and drinks on one's peak day (1b) will be found in the mobile alcohol/HIV intervention than in control at 1- and

6-month follow-up. Reduction in either outcome that is at least 20% larger with the intervention will be a benchmark of success.

PRIMARY AIM 2: Test a hypothesis that the intervention will relate to therapeutic PrEP levels in blood (Aim 2a) and prescription fills (2b). Either adherence variable being 30% higher in the intervention will indicate success.

SECONDARY AIM: Test reduced drinking; increased perception of risk from unprotected sex; reduced sexual risk behavior; and enhanced motivation (to avoid risky sex, take PrEP and drink less) as mediators of adherence.

PROJECT UPDATES

ANCHORS completed enrollment for the UH2 phase (N= 673 for the web survey, 24 focus groups/interviews, and 10 in the preliminary usability study). The study team has not yet started recruitment for the UH3 phase.

673
WEB SURVEY
ENROLLMENT
IN UH2 PHASE

24
FOCUS
GROUPS/
INTERVIEWS

10 IN
PRELIMINARY
USABILITY
STUDY

ANCHORS completed enrollment for the UH2 phase as stated above. The web survey data has been cleaned and analyzed to yield normative data for the web-based intervention to be tested as part of the UH3 phase, to conduct psychometric analyses of an expanded version of the Protective Strategies Questionnaire, and to capture sexual-health-related protective behavioral strategies.

The study team has transcribed all focus groups and interview recordings and is analyzing them for themes to enhance the UH3 phase intervention. The preliminary usability study was very valuable in terms of correcting technical issues with the interactive voice response (IVR) system and finalizing procedures for creating and providing personalized normative feedback to participants based on their IVR responses. The team will also review notes from follow-up interviews among those who completed the usability study to inform changes to the UH3 phase intervention.

With regard to building toward the UH3 phase, ANCHORS has collaborations in place with Infectious Disease at UF and has confirmed that the Alachua County DoH is ready to collaborate on the project. ANCHOS has an understanding as to how potential study participants will be identified by DoH clinic staff and how study staff will be notified about patients who have an interest in participating. The team is confident that recruitment will begin in earnest once the restrictions due to the COVID-19 outbreak on in-person recruitment are relaxed.

ANCHORS will re-engage with several community groups with whom the team originally engaged during the UH2 phase once UH3 recruitment is able to begin.

CHALLENGES

While ANCHORS made sufficient progress to advance to the UH3, the team had not yet completed the steps outlined by the end of the two-year UH2 phase, which are vital to the success of the research. The steps have now

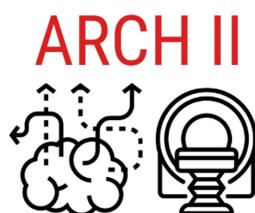
been completed but required multiple months of the UH3 phase to do so, however the intervention to be tested in the UH3 will be much stronger now. Restrictions due to the COVID-19 outbreak represented another challenge since the team was still in the process of completing the remaining UH2-phase steps when in-person data collection restrictions were put into place. The team has made good use of this restricted time though to consider fully the information gathered in the UH2 in order to enhance the intervention

ADDITIONAL SHARC RELATED GRANTS AND CONTRACTS

The following list of grants are those obtained by SHARC Core Faculty, currently funded and related to alcohol and/or HIV.

ALCOHOL AND HIV-ASSOCIATED BRAIN DYSFUNCTION (NIAAA P01AA019072)

PROJECT SUMMARY



The Brown University Alcohol Research Center on HIV was funded by NIAAA in 2010 to conduct integrated interdisciplinary research on alcohol and HIV that can inform clinical approaches to caring for people living with HIV and efforts to prevent HIV transmission.

Through collaborations with the Lifespan/Tufts/Brown Center for AIDS Research and local hospitals, Fenway Health, UMass-Boston, Columbia University, University of Florida, and UCSD, we have been conducting state-of-the-art research on the combined effects of alcohol and HIV on brain structure and function and on the effects of behavioral alcohol

intervention on alcohol use, sexual risk behavior, virologic outcomes, liver function, and neurocognitive function in HIV-infected men who have sex with men.

ARCH bridges investigators at Brown focusing on alcohol and HIV and investigators at the other NIAAA-funded Consortiums for HIV/AIDS and Alcohol-Related Outcomes Research.

72
TOTAL
PARTICIPANTS
IN ARCH

40
PARTICPANTS
AT THE FIU SITE
FOR ARCH

PROJECT UPDATES

Dr. Ronald Cohen is the PI of one of the component projects in the Brown ARCH, which seeks to evaluate potential changes in brain neuroimaging and neurocognitive functioning in PLWH before and after they receive an MI intervention. The MI intervention is delivered online by professional staff affiliated with Dr. Kahler's team at Brown.

In the past year, the ARCH enrolled persons at the same FIU site that is involved with the 30-Day Challenge. There were 40 participants enrolled in total for the ARCH study at FIU. Of those 40, two have successfully completed the study, and 13 are currently active.

There are also 32 participants enrolled at other sites bringing the total of participants to 72 for the ARCH study. The ARCH study funding is scheduled to end on May 30, 2020.

CHALLENGES

Since many of the data collection items and neuroimaging measures are similar with the 30-Day Challenge and the Rogue study, the team seeks to establish a database that includes neuroimaging data from multiple projects. How ARCH supports the long-term funding for a combined neuroimaging database is one of the challenges the team faces.

HEALTH OUTCOMES AND COGNITIVE EFFECTS OF MARIJUANA USE AMONG PERSONS LIVING WITH HIV/AIDS (NIDA R01DA042069)

PROJECT SUMMARY



Daily use of marijuana use is increasingly common in persons living with HIV. In Florida, which continues to have one of the highest rates of HIV incidence and prevalence in the US, voters are expected to pass an amendment to legalize medical marijuana for use by PLWH in late 2016.

While there is some evidence that marijuana can improve HIV-related symptoms, there is almost no existing evidence regarding the long-term health effects of marijuana in PLWH. Marijuana, which contains a number of different cannabinoid products, could affect HIV health outcomes via both behavioral mechanisms and biological mechanisms.

To accomplish these research goals, SHARC proposes a new, longitudinal cohort of 480 PLWH. The team will obtain detailed marijuana assessments, including cannabis biomarkers, together with repeated measures of cognition, systemic inflammation, and HIV care engagement and health outcomes

This will be the largest prospective cohort study focused on the health effects of marijuana in PLWH.

PROJECT UPDATES



In Fall 2019, the MAPLE Team met for a statewide training session in Orlando, Florida. As a team building activity, the team visited Halloween Horror Nights at Universal Studios.

SHARC calls this project the MAPLE study (Marijuana And Planning and Long-term Effects).

This study, funded by NIDA, shares many measures, ideas, and infrastructure, with our Florida Cohort and the 30-Day Challenge. The MAPLE study also uses the same biological labs as our 30-day challenge project, including labs at the University of Miami CFAR and at the University of Louisville.

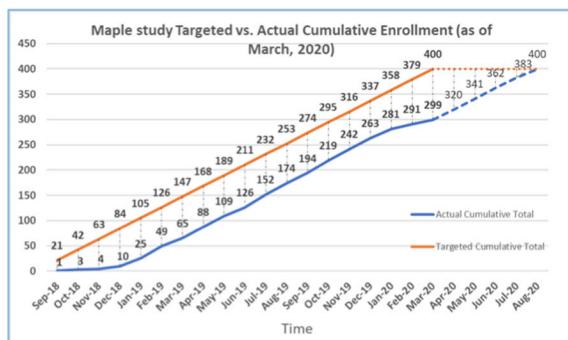
As of March 30, 2020, MAPLE had enrolled 299 PLWH, of whom 243 are current marijuana users.

This study is primarily observational involving marijuana that is "street-based" rather than from a dispensary. The

MAPLE team works hard to define measures related to marijuana quantity (in grams of flower) as well as milligrams of TCH and other components of marijuana.

MAPLE received a supplement from NIDA that is called the “Alzheimer’s Supplement” which adds gut microbiome data (to be analyzed in Dr. Barve’s lab), includes enrollment of more persons aged 60 years or older, and includes additional assessments of cognitive function. MAPLE has enrolled 8 persons in this supplement as of March, 2020.

299
**PERSONS LIVING
WITH HIV
ENROLLED**



The MAPLE team plans to submit a COVID-19 Supplement funding request in early May, including questions related to the impact of coronavirus and social isolation on alcohol and marijuana use.

USE OF HIV SURVEILLANCE DATA TO ADDRESS HIV STIGMA AND IMPROVE HIV CARE OUTCOMES IN FLORIDA (FLORIDA DEPARTMENT OF HEALTH)

PROJECT SUMMARY



The Southern HIV & Alcohol Research Consortium (SHARC) is a Florida-based research network comprised of universities, community-based organizations, and county health departments.

Through an ongoing collaboration with the Florida Department of Health, SHARC will create recommendations to reduce HIV-related stigma in Florida.

HIV-related stigma is a known barrier to HIV testing and treatment and is the target of multiple federal initiatives.

This partnership is particularly consequential because of the newly announced Ending the HIV Epidemic Initiative, a proposal that will decrease new HIV transmissions by 90% by 2030.

Additionally, Florida ranks second in new HIV infections. Focus group series, qualitative surveys will assess how people with and without HIV defined HIV-related stigma and ways to reduce it.

Secondary analyses of surveillance datasets will investigate disparities in and predictors of HIV-related stigma; datasets used will include the Medical Monitoring Project, National HIV Behavioral Surveillance, and the Florida Cohort, a survey of 932 PLWH in Florida.

PROJECT UPDATES

This project is a contract with the Florida Department of Health. SHARC is very integrated into the FDOH project team. Stigma is common in both HIV and substance abuse. This grant brought a member of the URBAN ARCH team, Karsten Lunze, PhD, to Gainesville to present on substance abuse and stigma in early 2020.

SHARC is obtaining a new contract with the DOH, that will be led by Dr. Mattia Prosperi from UF. As SHARC studies stigma and HIV, there are opportunities to think about how stigma related to alcohol and other substance use can also impact the health outcomes for PLWH.

The new contract for 2020 will include aspects of molecular surveillance and clusters of HIV, which is one of the four pillars of the Ending the HIV Epidemic initiative, and help SHARC establish or develop a new virtual cohort for persons living with HIV.

The team is interested in identifying biomarkers that are associated with stigma and that could be evaluated as part of interventions that address stigma.

ROLE OF GUT MICROBIAL DYSBIOSIS AND AGING ON HIV-ASSOCIATED NEUROCOGNITIVE AND BRAIN DYSFUNCTION (NIA R01AG061065)

PROJECT SUMMARY



Although AIDS-defining illnesses have decreased, the prevalence of HIV-associated non-AIDS conditions such as HIV-Associated Neurocognitive Disorders remains high, over 50%, particularly in aging individuals with long-standing HIV infection.

Our hypothesis is that interactive effects of aging and HIV at the level of gut dysbiosis and permeability and ensuing local and systemic inflammation play a major role in driving HIV and aging-associated neuroinflammation and cognitive dysfunction.

AIM 1: Assess longitudinal gut microbiome changes in older persons living with HIV.

AIM 2: Determine the impact of HIV and age associated gut dysbiosis on (A) intestinal permeability, microbial translocation, resultant peripheral endotoxemia, and inflammation, (B) multimodal MRI/MRS measures of neuroinflammation and cerebral metabolic disturbance.

AIM 3: To investigate the impact of gut dysbiosis and peripheral and neuroinflammation, and cerebral metabolic disturbance on cognitive dysfunction and functional brain abnormalities (fMRI) relative to age and HIV status.

PROJECT UPDATES

This project, referred to as the ROGUE, is funded by NIA. ROGUE started enrollment in Gainesville in 2019. The project has several of the similar measures as SHARC's other neuroimaging/microbiome projects (including alcohol assessments, neurocognitive assessments, and collection of stool samples for gut microbiome evaluation), but also includes some novel

22
ACTIVE
PARTICIPANTS
IN ROGUE

measures of the brain including phosphorus imaging.

Data from this project includes persons with and without HIV and persons who do and who do not drink alcohol. Thus, information in this study can be combined with data from SHARC's other neuroimaging projects into a central database.

There were 25 participants enrolled in the ROGUE study with 22 active due to three withdrawals. Of the 22 active participants, eight are persons not living with HIV and 14 are persons living with HIV.

LABORATORY AND FIELD VALIDATION OF A WRIST WORN ALCOHOL BIOSENSOR AMONG PERSONS LIVING WITH HIV (NIAAA R21AA027191)

PROJECT SUMMARY



This project will evaluate the reliability and validity of a new wrist worn alcohol biosensor among persons living with HIV, and also assess the acceptability and usability of the device for potential application in intervention. Currently, the Secure Continuous Remote Alcohol Monitor ankle bracelet is the only validated transdermal alcohol monitor available on market.

Research shows HIV infection can influence alcohol metabolism, so it's necessary to validate the new alcohol biosensor in HIV drinkers in addition to the general population.

This device may improve the alcohol and HIV research field with a more reliable, valid, and user-friendly tool for alcohol monitoring and intervention.

The primary goal of this project, as a step toward the development and evaluation of a biosensor-assisted alcohol intervention, is to validate the newly available wrist worn transdermal alcohol biosensor (BACtrack Skyn).

We propose to recruit 20 HIV+ and 20 HIV- drinkers to validate the Skyn biosensor in both laboratory and real life settings.

AIM 1: To assess validity and reliability of the Skyn biosensor through comparison with laboratory grade breathalyzer in two fixed-dose lab alcohol administration sessions

AIM 2: To validate Skyn biosensor in daily life using a 2-week ecological momentary assessment (EMA), and evaluate its usability and acceptability for daily alcohol monitoring

PROJECT UPDATES

As of 2020, AWARE had recruited 15 persons living with HIV and 5 persons not living with HIV.

The preliminary data suggests that the biosensor does detect drinking in most situations, but it is still not clear how consistently specific levels of transdermal alcohol are achieved in the same person who is administered the same amount of alcohol at different time points.

**20
PARTICIPANTS
RECRUITED FOR
AWARE**

The AWARE team remains very interested in how this wrist-worn biosensor can be used to measure alcohol consumption and how it might be used as part of interventions intended to reduce drinking. Just unclear how "specific" the readings are at this point.

Ben Berey (PhD candidate, SHARC T32 trainee) has been working on the project as a research coordinator and received training on wearable alcohol biosensors for behavioral research.

The AWARE team has presented data and findings at 3 conferences in 2019-2020 including:

1. Wang Y, Barnett N, Chung T, Alessi S, Abrantes, A, Bae, S. Leveraging sensor technology in alcohol research and intervention: Advancements and challenges. Symposium at the Research Society on Alcoholism (RSA) 42nd Annual Scientific Meeting, Minneapolis, MN, 2019. Role: Chair and Presenter
2. Wang, Y, Fridberg DJ, Fairbairn CEA, Croff, JA. New generation of wearable alcohol biosensors: Validation, application, and data analysis. Symposium accepted by the Research Society on Alcoholism (RSA) 42nd Annual Scientific Meeting, New Orleans, LA, 2020. Role: Chair and Presenter.
3. Wang Y. Real-time assessment of drinking behaviors: The potential of wrist-worn alcohol biosensor. NIAAA "Advancing Uptake, Retention, and Adherence to Antiretroviral Therapy and to Pre-Exposure Prophylaxis (PrEP) for HIV/AIDS Prevention among Alcohol-Using Populations" Workshop. Sept. 23-24, 2019, Bethesda, MD

CHALLENGES

Recruiting HIV+ participants who are relatively healthy for this study due to the safety concern for the lab-based alcohol administration has been challenging. Many participants the team screened have health conditions (e.g., uncontrolled hypertension, impaired liver function, seizure) contraindicating alcohol administration, even though these participants admit to drinking outside of a research study.

A MIND-BODY INTERVENTION TO REDUCE SYMPTOMS AMONG PEOPLE AGING WITH HIV (NCCIH R34AT009966)

PROJECT SUMMARY

Half of those infected with HIV in the United States are over 50 years of age; yet, few interventions exist for older people living with HIV/AIDS that address psychological symptoms, and none that address physical symptoms.

Tai chi and Qi gong (TCQ), improves both physical and psychological health. TCQ is a series of slow, low-impact meditative movements that integrates breath work, meditation, and stances. We propose the refinement, adaptation, acceptability and feasibility testing of a standardized TCQ intervention shown efficacious with cancer patients, to an ethnically diverse population of older people living with HIV/AIDS, with the goal of enhancing their ability to manage psychological and physical symptoms.

AIM 1: to refine and culturally adapt a TCQ intervention protocol for a diverse sample of older people living with HIV/AIDS

AIM 2: to evaluate the acceptability of the TCQ intervention, a sham qigong control condition, and a standard of care control condition for older people living with HIV/AIDS

AIM 3: to evaluate the feasibility of the TCQ intervention and sham qigong control condition.

PROJECT UPDATES

The first cohort of the clinical trial was initiated in January at Borinquen Medical Centers of Miami. The first participant was enrolled on January 6, 2020. Twenty-four participants were enrolled and randomly assigned to 1 of 3 conditions: qigong (n=8), sham qigong control (n=8), or standard of care control (n=8). The first class was held on the week of February 10, 2020. As of March 17, 2020, the team had completed a total of 5 weeks of classes (or a maximum of 7 classes). Six participants have withdrawn for the following reasons: broken leg, class time, transportation, and health issues. Several strategies were implemented to address these issues including using UberHealth for transportation assistance and having a weekly make up class to accommodate participant's schedules.

The average attendance rate for both the qigong and sham qigong groups was 64% (ranging from 60%-75% weekly). About 60% reported practicing at home an average of 2.3 days for 21 minutes per session. Almost all participants (90%) reported not using the DVD or video to practice but rather preferred the booklet. Almost all participants (94%) reported strongly enjoying the classes and that it met their expectations. Eighty-five percent found the movements very easy or easy.

Cohort 2 was scheduled to begin at a second location, Pridelines, with Spanish speakers sometime between May - June. Screening had begun and we had identified at least 10 eligible participants. However, due to covid-19, the clinical trial and all study related activities has currently been suspended.

Poster presentation regarding the key informant interviews was presented at the National Hispanic Science Network: Ibañez, GE., Fennie, K., Larkey, L., Algarin, AB, Fein, M., Taskin, T. (2019). Development of a mind-body intervention for older people living with HIV (PLHIV): An exploratory clinical trial. Poster presented at the National Hispanic Science Network. October 2019

Algarin, A.B., Varas-Rodriguez, E., Valdivia, C., Fennie, K.P., Larkey, L., Hu, N. & Ibañez, G.E. (2020). Symptoms, stress, and HIV-related care among older people living with HIV during the COVID-19 pandemic, Miami, Florida. AIDS and Behavior. <https://link.springer.com/article/10.1007/s10461-020-02869-3>

Ibañez, G. E., Algarin, A., & Taskin, T. (2019). Letter Response: Yoga, Tai Chi, Qigong, and Health Disparities...Wang C, Li K, Choudhury A, et al. Trends in yoga, tai chi, and qigong use among US adults, 2002-2017. Am J Public Health. 2019;109(5):755-761. American Journal of Public Health, 109(9), e5. <https://doi.org/10.2105/AJPH.2019.305238>

CHALLENGES

Our intervention requires face to face interactions and therefore, covid-19 has been a challenge. Prior to the COVID-19 outbreak, we were experiencing some challenges with retention.

To date, the study has had 5 participant withdrawals with an expected 1 additional. These participant withdrawals had been a result of various reasons including broken toe/leg, health issues,

**24
PARTICIPANTS
ENROLLED IN
THE STUDY**

**2ND
QUIGONG
INSTRUCTOR
HIRED**

transportation issues, time commitments, etc. At this time, there has been no withdrawal that a participant has claimed to be a result of not enjoying the classes. Currently, the study is on hold due to the COVID-19 outbreak.

SHARC TRAINING GRANTS

TRANSLATIONAL SCIENCE TRAINING TO REDUCE THE IMPACT OF ALCOHOL ON HIV INFECTION (NIAAA P01AA019072)

PROJECT SUMMARY

2
POST-DOC
FELLOWS IN
T32 PROGRAM

5
PRE-DOC
FELLOWS IN
T32 PROGRAM

Trainees will be based in the following academic programs: Epidemiology, Biostatistics, Clinical and Health Psychology, Nursing Science, Health Education and Behavior, and/or the Interdisciplinary Program in Medicine.

Our 18 faculty mentors span four colleges and eight departments at UF. Each bring unique skills and expertise related to alcohol and HIV.

The training program will ensure appropriate depth in knowledge regarding alcohol, HIV, and three additional focus areas that represent areas of strength in ongoing research at UF: a) health behavior intervention science; b) epidemiology and data science; and c) cognitive science related to aging.

The training program will be integrated with Southern HIV Alcohol Research Consortium, which is supported by over \$10 million in ongoing NIAAA funding through 2021. UF is an outstanding training environment with supporting

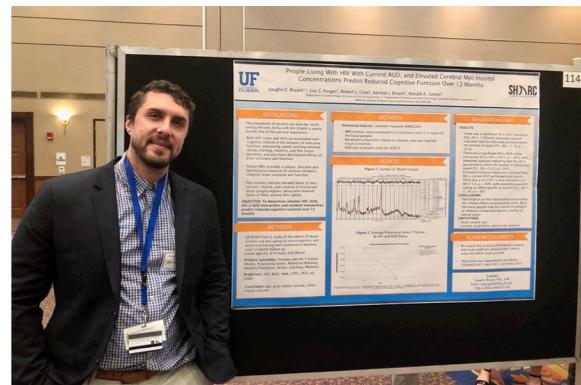
resources, including a pledge to provide an additional \$500,000 in support to our specific training program. The impact of the training program will be judged by the long-term track record of trainees who complete the training program, which we will monitor over time.

PROJECT UPDATES

SHARC had five pre-docs and three post-docs supported during 2019-2020. One of the two post-docs recently accepted a faculty position at the University of Florida as a Research Assistant Professor in the Department of



Veronica Richards, a SHARC pre-doctoral fellow, presented a poster regarding her research at the Addiction Health Services Research Conference in Utah during fall 2019.



Vaughn Bryant, PhD, a SHARC post-doctoral fellow, presented a poster regarding his research at the Emerging Pathogens Institute Research Day at the University of Florida in January 2020.

Occupational Therapy. Dr. Nichole Stetten was part of a team that was invited to present a symposium on alcohol and quality of life at the 2020 RSA conference in collaboration with the teams from LSU and Tulane.

In summer 2020, two of five pre-docs are graduating; one has accepted a post-doc position at Brown University and the other is considering several options. One pre-doc submitted an F31 grant to NIAAA, which will be resubmitted this summer.

In April 2020, SHARC's training program received three applications for a post-doc position (one spot available). SHARC also received five applications for pre-doc positions (three spots available in August 2020, two of whom are graduating while a third has completed 2 years in the program).

FEASIBILITY OF SBIRT FOR UNDERSERVED HIV+ ADULTS 50+ IN PRIMARY CARE SETTINGS (NIDA K23DA039769)

PROJECT SUMMARY

Substance use interventions in particular have lagged in moving from research laboratories to real-world settings. The Screening, Brief Intervention and Treatment model has been effective in decreasing high risk behaviors such as tobacco, alcohol, and illicit drug use. Recent data suggests that brief intervention models alone may not be effective with vulnerable populations.

AIM 1: Pilot effectiveness of SBIRT-PN versus treatment as usual in HIV primary care clinics to improve substance-use treatment engagement and HIV appointment adherence among adults aged 50 and older.

AIM 2: Describe the influence of demographic factors, depression and pain on substance-use treatment engagement outcomes.

AIM 3: Examine and enhance feasibility (recruitment, dose, retention) of intervention uptake for a larger trial. Completion of this plan will prepare Dr. Ennis for a career as an independent clinical investigator trained to implement substance use interventions in real world settings.

PROJECT UPDATES

Dr. Ennis has moved to Florida State University but continues to participate on papers with the Florida Cohort. She is gaining skills and expertise in implementation science that could be useful for the SHARC. The pilot work with Dr. Ennis is demonstrating that PLWH who have substance use are willing to engage with peers who will try to help link them to substance abuse treatment. But SHARC may need to connect more with existing community-based agencies as the team proceeds with implementation science projects that seek to connect PLWH to both HIV clinical care and care focused on mental health and substance abuse.

COGNITIVE AND FUNCTIONAL DEFICITS ASSOCIATED WITH REDUCED CORTICAL GABA IN HIV-INFECTED HEAVY DRINKERS (NIAAA K01AA025306)

PROJECT SUMMARY

The proposed research will investigate the relationship between GABA concentrations and heavy

alcohol use in individuals with HIV and the relationship between GABA and cognitive flexibility in individuals with HIV.

To investigate these research questions, cognitive capabilities and cortical GABA concentrations will be examined. 35 million people have contracted HIV worldwide, more than 1.2 million people have HIV in the US, with more than 50,000 new diagnoses each year. HIV individuals exhibit almost twice the rate of heavy alcohol consumption in contrast to the general population.

Heavy alcohol consumption in HIV adults, impacts on health outcomes by increasing the occurrences of high-risk behaviors and is associated with increased severity of brain dysfunction. Thus, heavy alcohol consumption in HIV is a major public health concern. The K01 will provide protected time and training for the PI to focus his research agenda firmly in alcohol and HIV. This grant will enable cutting-edge research investigating the biological foundations of the well documented behavioral, cognitive, and health alterations resulting from HIV and heavy drinking.

PROJECT UPDATES

This K-award has supported Dr. Porges to be engaged and involved in several of the SHARC-related projects including Florida Cohort, 30-Day Challenge/ACME, and the MAPLE study. Dr. Porges is gaining skills and demonstrating the ability to detect GABA and alcohol itself as part of MRS neuroimaging.

Dr. Porges is also gaining pilot data related to an intervention for vagal nerve stimulation that is intended to reduce arousal and related behaviors and desire for alcohol consumption. Dr. Porges mentors one of the trainees in the SHARC T32 training program.

MEDICAID PRIOR AUTHORIZATION POLICIES FOR CHRONIC HEPATITIS C TREATMENT IN VULNERABLE POPULATIONS (NIDA K01AA025306)

PROJECT SUMMARY

This K01 award will provide Dr. Park with the support necessary to accomplish the following goals: (1) gain a solid understanding of health risk factors related to hepatitis C virus (HCV) infection with emphasis on substance use disorder and human immunodeficiency virus (HIV) co-infection; (2) obtain intensive training in the development of survey instruments and conducting survey research; (3) gain further epidemiology and statistical knowledge relevant to longitudinal analysis of Medicaid claims and registry data; and (4) acquire further grant writing skills and experiences, resulting in the submission of a R01 grant before the end of the support period.

Despite effective HCV therapies now available, a majority of state Medicaid programs restrict access to new HCV therapy for persons who use substances as well as individuals co-infected with HIV. Dr. Park's current research will focus on the impact of Medicaid prior authorization policies on prescribers' practices, patient's access to the new HCV therapies, and the clinical outcomes in HCV-infected patients with substance use disorder and or HIV co-infection.

PROJECT UPDATES

Dr. Park has identified 14,063 newly diagnosed HCV patients who met the inclusion criteria using the Florida Medicaid database (2012-2018).

During Year 2 of this project, the major activities centered on building the necessary infrastructure for the completion of Aims 1-3. Specifically, Dr. Park obtained the data from the OneFlorida Data Trust (2012-2018 FL Medicaid and electronic health record), Arizona State University Center for Health Information and Research (2012-2017 AZ Medicaid data) and from the Hepatitis C Therapeutic Registry and Research Network (HCV-TARGET, 2012- 2018 Target registry data).

Both datasets are housed on a server owned by the College of Pharmacy, Department of Pharmaceutical Outcomes and Policy at the University of Florida.

Dr. Park has completed the data analyses for Aim 2 using FL Medicaid data. Currently, Dr. Park is working on the development of a physician survey study (Aim 1) and preparing for pre-testing of an instrument to measure physicians' relevant attitudes and practices. Dr. Park is also working on refining linkage algorithms for HCV-Target registry data with the FL Medicaid dataset (Aim 3)

Dr. Park's training plan has four goals to hone my expertise in the area of hepatitis C virus (HCV) infection with emphasis on substance use disorders (SUDs) and HIV co-infection. This K01 grant has provided tremendous opportunity for Dr. Park's training in the past year.

The Epidemiological Challenges of the Global HIV Epidemic (June 26-27, 2019, Columbia University, New York, NY) - this two-day short course provided a specialized opportunity to develop knowledge and apply research in the area of the HIV epidemic through lectures, group discussions, and engagement with expert speakers as well as networking opportunities.

Machine learning (May 30-July 25, 2019, Massachusetts Institute of Technology (MIT)) - this 8-week online course introduced concepts and methods for machine learning. This course covered machine learning methods including regression, classification, neural networks, applications, and causal inference.

Academy Health (June 1-4, 2019, Washington DC) - Dr. Park attended the Academy Health annual research meeting which provided opportunities and enabled me to gain knowledge and apply research in the area of health policy and substance use disorders. The program consisted of academic lectures, research presentations, and interactive sessions.

Dr. Park has skills and expertise in analysis of existing health services research data. She is becoming more involved in SHARC activities related to health services research data, including a pilot study supported by the University of Miami CFAR.

Dr. Park has expertise in analysis of information related to persons who may be at risk for HIV and who would benefit from PrEP, and she is part of an ongoing data science working group focused on this area. Dr. Park also brings expertise related to the intersection of HIV, hepatitis C infection, liver disease, and alcohol consumption.

CHALLENGES

The development, testing, and implementation of a questionnaire to measure physicians' relevant attitudes and prescribing experiences has been a challenge for Dr. Park as she has limited experience in conducting survey studies.

PUBLICATIONS

PUBLICATIONS FROM U24 FLORIDA COHORT- SOUTHERN HIV AND ALCOHOL RESEARCH CONSORTIUM ADMINISTRATIVE AND RESEARCH SUPPORT CORE

1. Algarin AB, Zhou Z, Cook CL, Cook RL, Ibanez GE. Age, Sex, Race, Ethnicity, Sexual Orientation: Intersectionality of marginalized-group identities and enacted HIV-related stigma among people living with HIV in Florida. *AIDS Behav.* 2019 Nov;23(11):2992-3001. PMID: 31392442
2. Algarin AB, Sheehan DM, Varas-Diaz N, Fennie KP, Zhou Z, Spencer EC, Cook RL, Morano JP, Ibanez GE. Healthcare specific enacted HIV-related stigma's association with antiretroviral therapy adherence and viral suppression among people living with HIV (PWLH) in Florida. [in press, 2020] *AIDS Patient Care and STDs*
3. Algarin AB, Zhou Z, Canidate S, Gebru NM, Krieger JL, Neil JM, Cook RL, Ibañez GE. PrEP awareness among people living with HIV in Florida: Florida Cohort study, *AIDS Care.* 2020
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5. Dunne EM, Cook RL, Ennis NE. Non-planning impulsivity but not behavioral impulsivity is associated with HIV medication non-adherence. *AIDS Behav.* 2019 May;23(5):1297-1305. PMID: 30264205
6. Ibañez GE, Zhou Z, Cook C, Slade T, Somboonwit C, Morano J, Harman J, Bryant K, Ennis N, Brumback B, Algarin A, Spencer E, Cook RL. The Florida Cohort Study: Methodology, initial findings and lessons learned from a multisite cohort of people living with HIV in Florida. *AIDS Care.* 2020 Apr 3:1-9. PMID: 32242455
7. Mannes ZL, Bryant V, Burrell LE, Zhou Z, Lu H, Ferguson EG, Cook RL, Ennis, N. The prevalence and patterns of substance use across age cohorts in HIV+ adults within the state of Florida. *Aging Ment Health.* 2019 Apr;23(4):515-523. PMID: 29436844
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9. Mannes ZL, Hearn LE, Zhou Z, Janelle JW, Cook RL, Ennis N. The association between symptoms of generalized anxiety disorder and appointment adherence, overnight hospitalization, and emergency department/urgent care visits among adults living with HIV enrolled in care. *Journal of behavioral medicine.* 2019 April;42(2):330-341
10. Wijayabahu AT, Zhou Z, Cook RL, Brumback B, Ennis N, Yaghjyan L. Healthy behavioral choices and cancer screening in persons living with HIV/AIDS are different by sex and years since HIV diagnosis. *Cancer causes & control : CCC.* 2019 March;30(3):281-290. PubMed PMID: 30739240

11. Xu Y, Chen X, Zhou Z, Morano J, Cook RL. The interaction between detectable plasma viral load and increased body mass index on hypertension among persons living with HIV. AIDS Care. 2019 Sep 18:1-6. PubMed PMID: 31530006
12. Xu Y, Chen X, Wijayabahu A, Zhou Z, Yu B, Spencer EC, Cook RL. Cumulative HIV viremia copy-years and hypertension in people living with HIV. Current HIV research. 2020 January 31. PubMed PMID: 32003696

FLORIDA COHORT PAPERS CURRENTLY UNDER REVIEW OR REVISION (2020)

1. Griffin I et. al. Examining venue selection, risky sexual behaviors, and sexually transmitted diseases among persons living with HIV, Florida, 2014–2017. Submitted, Sexually Transmitted Diseases
2. Kamara M, Richards V, Somboonwit C, Park H, Zhou Z, Seneadza N, Jayaweera D, Thomas E, Cook RL. Factors associated with self-reported HCV testing history among persons living with HIV in Florida. Under review, Annals of Epidemiology
3. Leach EO, Lu H, Thomas JE, Caballero J, Spencer EC, Cook RL. Self-reported adherence to antiretroviral therapy was poorly correlated with HIV viral suppression in a sample of Persons living with HIV in Florida. Submitted, AIDS and Behavior
4. Mannes ZL, Dunne EM, Ferguson EG, Cook RL, Ennis N. Symptoms of generalized anxiety disorder as a risk factor for substance use among adults living with HIV. Under review, AIDS Care
5. Richards VL, Berey B, Lu H, Stetten NE, Wang Y, Brumback B, Cook RL. Positive consequences of alcohol use among persons living with HIV: Implications for intervention. Submitted, Addictive Behaviors
6. Seneadza NAH, Kwara A, Lauzardo M, Prins C, Zhou Z Seraphin N, Ennis N, Morano JP, Brumback B, Cook RL. A comparison of self-reports and medical records for assessing risk factors for latent and active tuberculosis among persons living with HIV in Florida. Submitted, Annals of Epidemiology
7. Xu Y, Hanna DB, Cook RL, Min J, Zou F, Sheps D, Plankey M, Phair J, Post WS, Chen X. Cumulative cigarette smoking and incident hypertension among persons living with HIV. Submitted, JAIDS

MAPLE- HEALTH OUTCOMES AND COGNITIVE EFFECTS OF MARIJUANA USE AMONG PERSONS LIVING WITH HIV/AIDS

1. Sajdeya R, Cook RL. Need to Improve Dose Measurements in Studies of Marijuana Use for Pain. Journal of acquired immune deficiency syndromes. 2020 March 1;83(3):e23. PubMed PMID: 32032280;
2. Slawek D, Meenrajan SR, Alois MR, Comstock Barker P, Estores IM, Cook R. Medical Cannabis for the Primary Care Physician. Journal of primary care & community health. 2019 January; 10:2150132719884838. PubMed PMID: 31646929

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1. Cook RL, Zhou Z, Miguez MJ, Quiros C, Espinoza L, Lewis JE, Brumback B, Bryant K. Reduction in drinking was associated with improved clinical outcomes in women with HIV infection and hazardous drinking: Results from a randomized clinical trial of oral naltrexone versus placebo. *Alcohol Clin Exp Res* 2019 Aug;43(8):1790-1800. Epub 2019 Jul 10. PMID: 31373701
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1. Algarin AB, Shrader CH, Bhatt C, Hackworth BT, Cook RL, Ibanez GE. The Pre-exposure prophylaxis (PrEP) Continuum of Care and correlates to initiation among HIV-negative men recruited at Miami Gay Pride 2018. *J Urban Health*. 2019 Jun 4. PMID:31165357
2. Berey BL, Leeman RF, Chavarria J, King AC. Relationships between generalized impulsivity and subjective stimulant and sedative responses following alcohol administration. *Psychology of addictive Behaviors : journal of the Society of Psychologists in Addictive Behaviors*. 2019 November;33(7):616-625. PubMed PMID: 31497988; PubMed Central PMCID: PMC6856403
3. Bryant V, Gullett J, Porges E, Cook RL, Bryant K, Woods AJ, Williamson J, Ennis N, & Cohen RA. History of alcohol consumption and HIV status relate to functional connectivity differences in the brain during working memory performance. *Curr HIV Res*. 2020 Feb 16. PMID: 32065091
4. Chichetto NE, Mannes ZL, Allen MK, Cook RL, Ennis N. Perceived barriers/facilitators, knowledge, and current care practices of unhealthy alcohol consumption in primary HIV care settings. *Addict Sci Clin Pract*. 2019 Jun 7;14(1):21. PMID: 31174601
5. Chichetto NE, Kundu S, Freiberg MS, Butt AA, Crystal S, So-Armah KA, Cook RL, Braithwaite RS, Fiellin DA, Khan MR, Bryant KJ, Gaither JR, Barve SS, Crothers K, Bedimo RJ, Warner AL, Tindle HA; Veterans Aging Cohort Study. Association of concurrent unhealthy alcohol use, cigarette use, and depression on all-cause mortality among adults living with and without HIV- infection: Veterans Aging Cohort Study. *Open Forum Infect Dis*. 2019 May 16;6(6):ofz188. eCollection 2019 Jun. PMID: 31211153
6. Chichetto N, Plankey M, Abraham A, Sheps D, Ennis N, Chen X, Weber K, Shoptaw S, Kaplan R, Post W, Cook RL. The impact of past and current alcohol consumption patterns on progression of carotid intima media thickness among women and men living with HIV-infection. *Alcohol Clin Exp Res*. 2019 Apr;43(4):695-703. PMID: 30735256.

7. Cohen RA, Gullett JM, Porges EC, Woods AJ, Lamb DG, Bryant VE, McAdams M, Tashima K, Cook R, Bryant K, Monnig M, Kahler CW, Monti PM. Heavy Alcohol Use and Age Effects on HIV-Associated Neurocognitive Function. *Alcoholism, clinical and experimental research*. 2019 January;43(1):147-157. PubMed PMID: 30371953; PubMed Central PMCID: PMC6467512; DOI: 10.1111/acer.13915
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9. Escobar-Viera CG, Zhou Z, Morano JP, Lucero R, Lieb S, McIntosh S, Clauson KA, Cook RL. The Florida Mobile Health Adherence Project for People Living with HIV (FL-mAPP): Longitudinal Assessment of Feasibility, Acceptability, and Clinical Outcomes. *JMIR Mhealth Uhealth* 2020;8(1):e14557
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11. Song HJ, Squires P, Wilson D, Lo-Ciganic W, Cook RL, Park H. Trends in HIV pre-exposure prophylaxis prescribing in the United States, 2012-2018. In press, JAMA, 2020
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THE MISSION OF THE SOUTHERN HIV AND ALCOHOL RESEACH CONSORTIUM IS TO IMPROVE HEALTH OUTCOMES AND REDUCE HIV TRANSMISION AMONG THE DIVERSE RANGE OF POPULATIONS, AFFECTED BY ALCOHOL AND HIV INFECTION IN FLORIDA. TO FULFILL THIS MISSIN, SHARC WILL FOSTER INTERDISCIPLINARY RESEARCH, TRAINING, AND COMMUNITY ENGAGEMENT.

COLLABORATING INSITUTIONS AND ORGANIZATIONS



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