



IDHII

Institute on Digital Health and Innovation

Annual Report **July 1, 2022 - June 30, 2023**



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[LinkedIn](#) | [X \(Twitter\)](#)

Associated Departments



FLORIDA STATE UNIVERSITY
COLLEGE OF NURSING

Mission

The mission of IDHI is to **advance digital health science, technologies, and tools** focused on solving real-world needs of patients, providers, and populations through research, training, and innovation.



IDHI

Institute on Digital Health and Innovation

IDHI strives to achieve this mission by **developing, evaluating, and disseminating digital health tools, technologies, and innovations that promote individual and public health and health equity** through collaborative and synergistic partnerships.



Labs Housed in IDHI

The IRIS Hub

The Intervention Research and Implementation (IRIS) Hub's mission is to address public health gaps by **improving the well-being of underserved populations through intervention research and the conduct of pragmatic clinical trials** that engage community stakeholders throughout the scientific process. The IRIS Hub strives to achieve this mission by **linking intervention research with implementation science** to combat negative structural and individual level barriers to health and well-being.

IRIS Hub Director:

Henna Budhwani, PhD, MPH

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IDHI Notable Achievements



\$72.7M NIH Grant to Lead Adolescent HIV Clinical Trials Network

In January 2023, IDHI was awarded a \$72.7 million grant from the National Institutes of Health (NIH) to **redesign and improve HIV prevention and care interventions for adolescents and young adults** in the United States.

The funding is part of the Adolescent Medicine Trials Network for HIV Interventions, and **IDHI serves as the Scientific Leadership Center (SLC)** within the network. **Dr. Hightow-Weidman is leading the SLC, which is charged with bringing together all elements of the network** to ensure they function collaboratively and efficiently.

Dr. Muessig is leading the Statistical and Data Management Core, which is housed within the SLC and **provides expertise and support in study design, statistical analysis, data collection, and data management.**



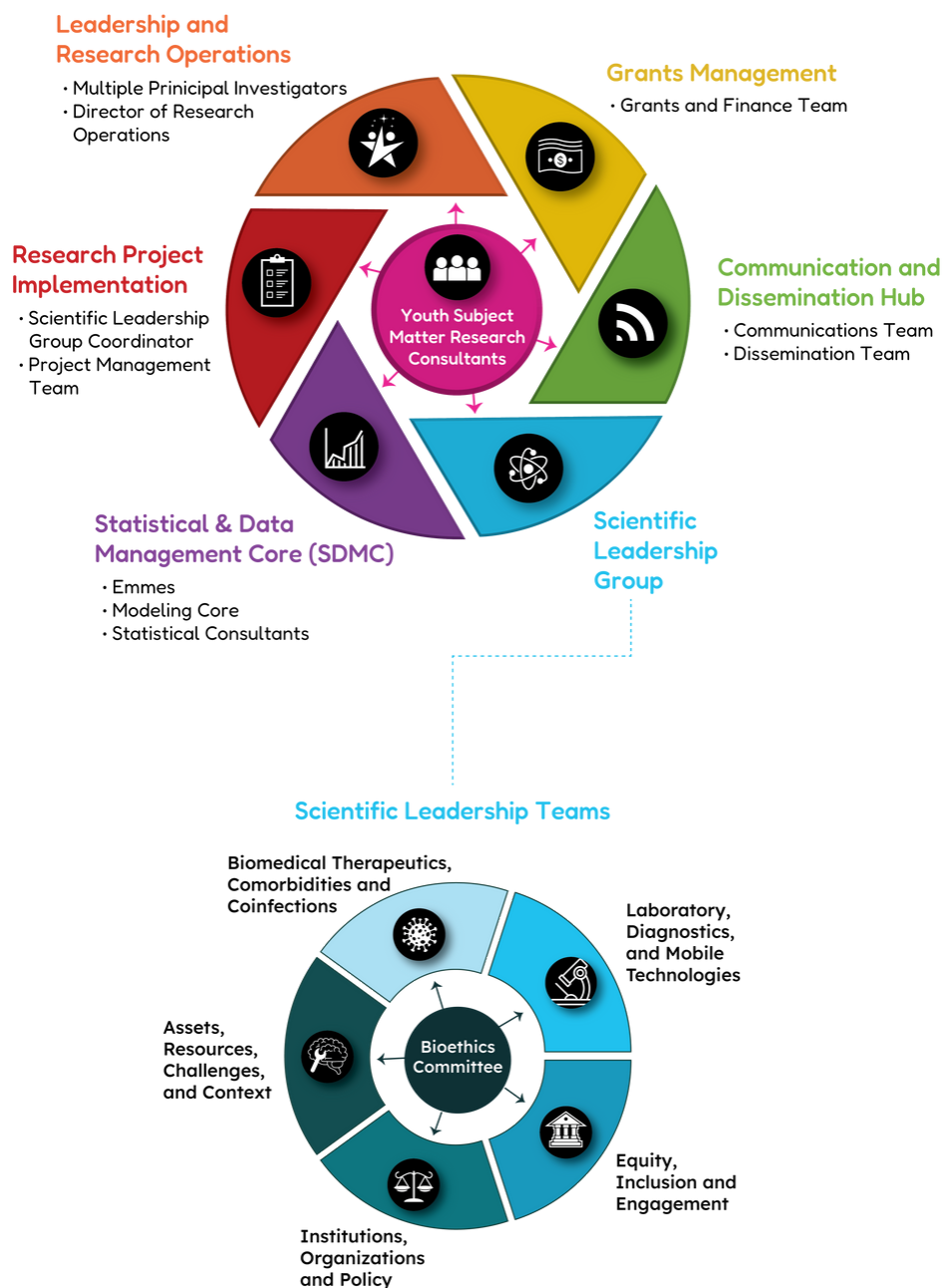
The grant is currently ending its first year of a seven-year term.

It is believed to be the **largest grant ever awarded by the NIH to a nursing school** in the United States.

[Visit the ATN Website](#)

ATN Scientific Leadership Center Structure

The structure of the Adolescent Medicine Trials Network's Scientific Leadership Center is illustrated below.



Design Sprint: Aging in Place

In April 2023, IDHI and the College of Nursing partnered with the FSU Innovation Hub to organize a 24-hour Design Sprint – an intensive problem-solving session where **students worked in teams to develop solutions to real-world problems.**

FSU students from **over 30 different disciplines** gathered to tackle the challenge of “Smart Home Design for Aging in Place.” Working in interdisciplinary teams – and employing a design thinking approach – **students created innovative solutions to help aging individuals live safely, independently, and comfortably at home.**

The event culminated with students **pitching their solutions to an expert panel of judges**, and then first, second, and third-place teams were selected to receive gift cards as prizes.



1ST PLACE - THE GUARDIAN ANGEL
A Smart Bed that ensures sleep in REM cycle to combat insomnia and related diseases.

[Click here](https://bit.ly/designsprintaging) to see more about the Design Sprint for Aging in Place, including the final pitches that students created.
(bit.ly/designsprintaging)

Design Sprint Photos



College of Nursing Associate Dean for Research

In April 2023, Dean Jing Wang named **Dr. Hightow-Weidman the College of Nursing's Interim Associate Dean for Research.**

In this role, she **leads the Office of Research and Scholarship** and provides leadership and vision for the college's entire research enterprise.

Since stepping into the role, Dr. Hightow-Weidman has worked closely with FSU's Vice President for Research, Dr. Stacey Patterson, to help **shape and transform FSU research administration processes and systems to improve efficiency.**



In December 2023, Dean Wang announced that **Dr. Hightow-Weidman will serve as the permanent Associate Dean for Research.**

IDHI's Greatest Strengths

Taken together, these four areas of strength serve to bring **greater recognition and national attention to the College of Nursing and FSU**, increasing the competitiveness and desirability of FSU's training programs and employment opportunities.

Academic Scholarship

IDHI faculty have a record of excellence in publishing in competitive, peer-reviewed academic journals and are regularly invited or selected to present research at regional, national, and international conferences. Staff and students are also given opportunities to lead manuscripts/abstracts or to contribute as co-authors.

Collaboration

Faculty and staff within IDHI foster collaboration within the College of Nursing, across the FSU campus and more broadly within the state of Florida, as well as nationally, and globally.

Employment Opportunities

During the current reporting period, IDHI fully supported through extramural grant funding the salary and benefits of 15 full-time and 10 part-time staff. All of these positions were newly created with the opening of IDHI, representing expansion of FSU employment opportunities.

Grant Funding

IDHI has an extensive and competitive research grant portfolio totaling over \$115 million.

IDHI Goals



IDHI Goals Overview

IDHI's research, training, and innovation goals align with the Board of Governors' (BOG) strategic plan in **achieving excellence in teaching, research, and public service** for the benefit of Florida's citizens, their communities, and the state economy.

Specifically, **these goals align with the BOG 2025 goals** for Teaching & Learning (Excellence), Scholarship, Research & Innovation (Excellence, Productivity, and Strategic Priorities), and Community and Business Engagement (Excellence and Productivity).

Barriers to Achieving Goals



IDHI was established in October 2022 and is therefore a relatively new institute at FSU. During this 9-month reporting period, IDHI focused on transitioning data, technologies, processes and grants from the directors' previous academic institutions, hiring and onboarding IDHI staff to FSU systems and building strong relationships within the College of Nursing and across FSU campus.

Some of the barriers we experienced in achieving our goals were related to this transition and adjusting to a different way of implementing research via FSU processes and systems. As mentioned above, Dr. Hightow-Weidman has been working closely with Dr. Stacey Patterson to address some of these barriers, and we are grateful for her advocacy and support.

Goal: Research

IDHI proposes innovative and rigorous research that promotes health and reduces health inequities using **digital health tools, technologies, and innovations.**

We connect scientists and scholars from various disciplines and **forge collaborative research opportunities** aimed at advancing digital health.

Additionally, **IDHI strives to support and enhance the College of Nursing/greater FSU research enterprise**, foster academic excellence, and gain recognition nationally and globally.



IDHI has **over 20 active grants**, including the \$72.7M NIH grant to lead an adolescent HIV clinical trials network.

We are continually identifying and applying for new funding opportunities.



Goal: Training

IDHI offers training opportunities for **FSU students and junior/emerging nursing faculty** to foster and apply translational research skills in digital health into community, clinical, and policy solutions.

We strive to **foster collaboration** among faculty and students across the FSU campus, nationally, and globally.

Drs. Hightow-Weidman, Muessig, and Budhwani are **regularly invited to present in their areas of expertise** in classroom settings and national and international conferences, serve on advisory panels, and participate in early career investigator mentorship teams.



Read more about IDHI's 2023 training accomplishments on the next page.



Goal: Training



Drs. Hightow-Weidman and Muessig **created a directed independent study mHealth course** for a social work doctoral student in June 2023.



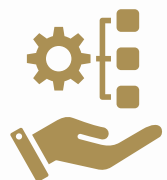
Dr. Ibriham Yigit is currently a **postdoctoral scholar** within IDHI and is mentored by Drs. Budhwani and Hightow-Weidman. IDHI began **recruitment for additional postdoctoral scholar positions** in May 2023.



In February 2023, IDHI conducted a **strategic planning/needs assessment survey with College of Nursing Faculty** to inform training needs and priorities.



Judah Dean (IDHI Research Communications Manager) provides **ongoing social media advertisement campaign guidance and technical assistance** to research teams across FSU's campus and to external partners.



Jacob Stocks (IDHI Program Manager) and Zach Soberano (IDHI Research Coordinator) provide **technical assistance around research study procedures and implementation**, tracking participants, and the development of monitoring reports.



Dr. Budhwani spearheaded the **creation of a College of Nursing faculty mentorship program** in consultation with Drs. Hightow-Weidman and Muessig. The program includes one-on-one check-ins for all assistant professors every semester, guidance and assistance with Individual Development Plans, and mentor-mentee pairings.

Goal: Innovation

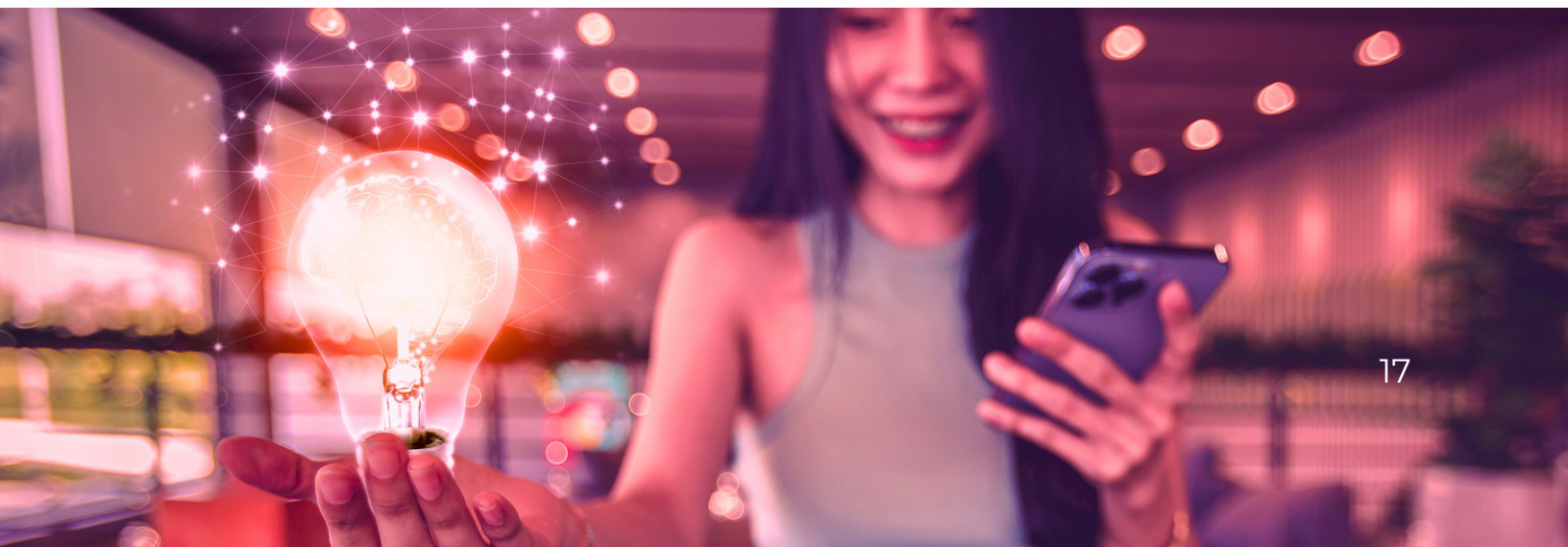
IDHI applies a transdisciplinary approach to **develop new models, methods, and technologies using digital health** to solve critical health problems focused on reducing health inequities.

We catalyze the **engagement of academic, community, industry, and policy stakeholders** in evidence-based digital health research and implementation to accelerate digital health advancements that meet the needs of various stakeholders.

Additionally, IDHI utilizes innovative modalities to **disseminate knowledge, facilitate dialogue, and broaden awareness** to drive synergy and advance best practices.



Read more about IDHI's 2023 innovative accomplishments on the next page.



Goal: Innovation



IDHI has **created and fostered partnerships with technology companies** – in particular One Cow Standing (OCS), who is responsible for administering and maintaining the HealthMpowerment (HMP) digital platform.



During this reporting period, IDHI faculty submitted multiple **grants that used innovative research methods**.



IDHI faculty and staff met with the FSU Office of Commercialization and submitted an **invention disclosure for the HealthMPowerment (HMP) Platform** in June 2023.



Dr. Hightow-Weidman presented at a health policy meeting in June 2023 titled, **“Embracing Equity from the Beginning: New Opportunities to Improve HIV Outcomes”** (A Convening of the O’Neill Institute HIV Prevention Policy Project).



IDHI organized and coordinated the **Design Sprint for Aging in Place** in April 2023.

IDHI Program Summaries



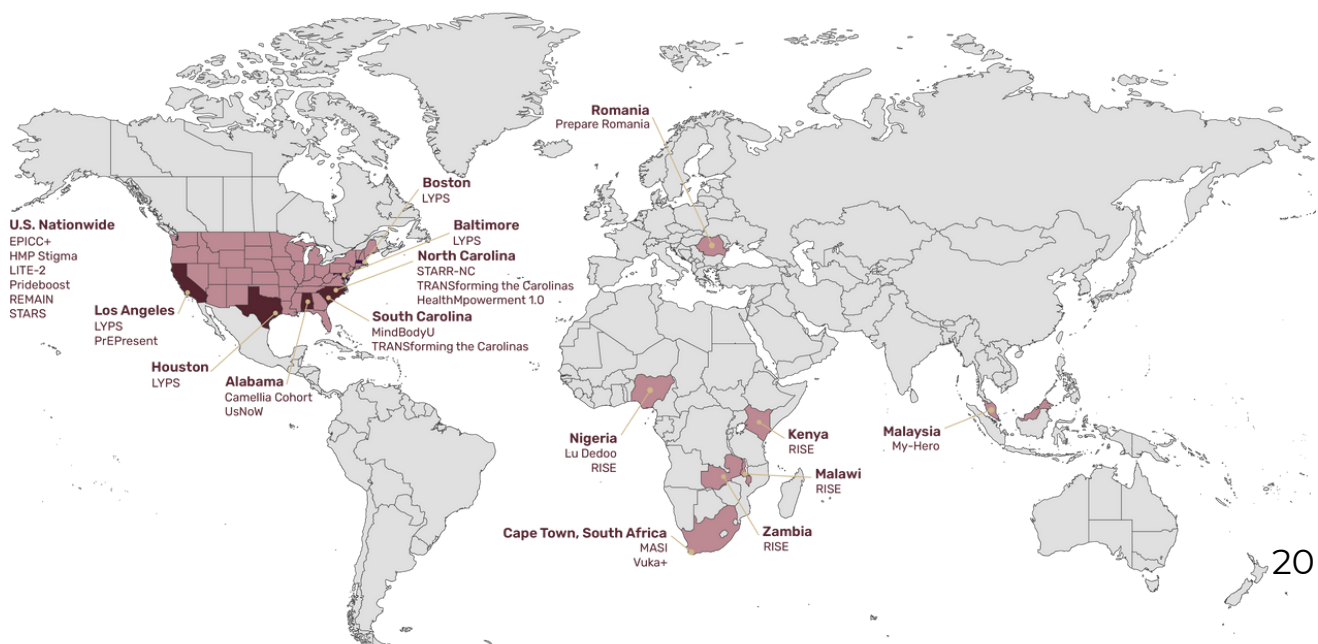
HealthMpowerment

The [HealthMpowerment](#) (HMP) platform was originally created by Dr. Hightow-Weidman and is a **theory-based, status-neutral intervention designed to provide tailored health and wellness information and resources via a mobile optimized platform**. HMP is available for research studies as an Android an iOS app and covers a range of health and lifestyle topics to support users' diverse backgrounds and varying needs over time.

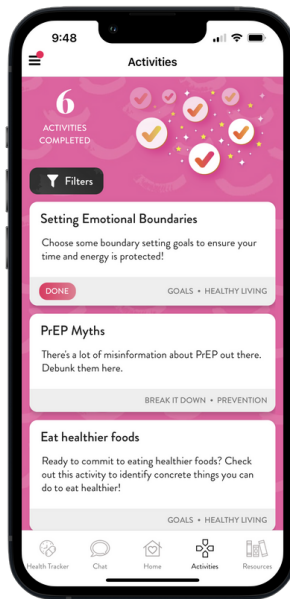
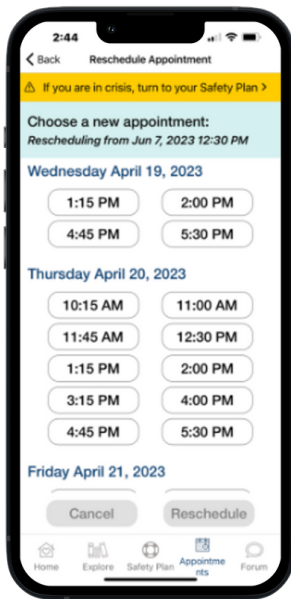
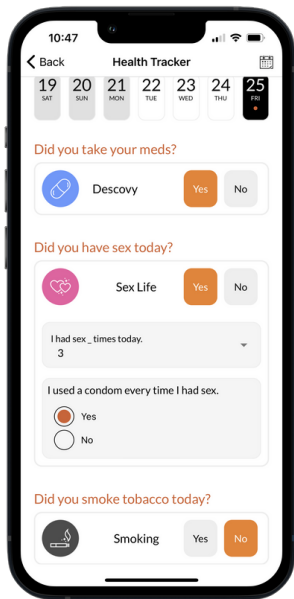
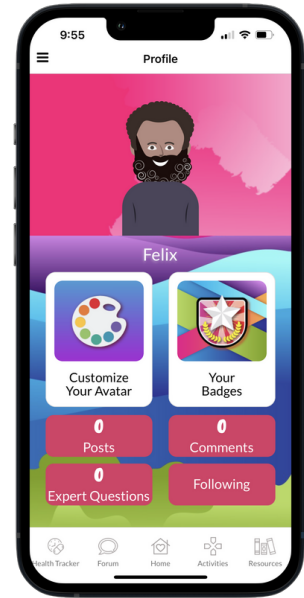
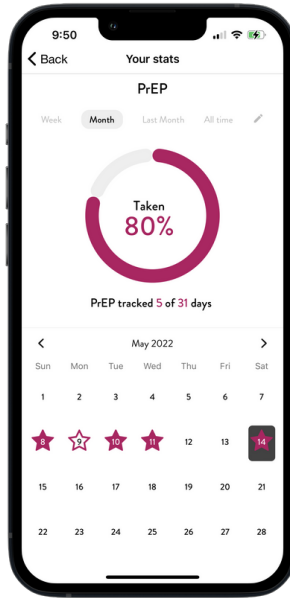
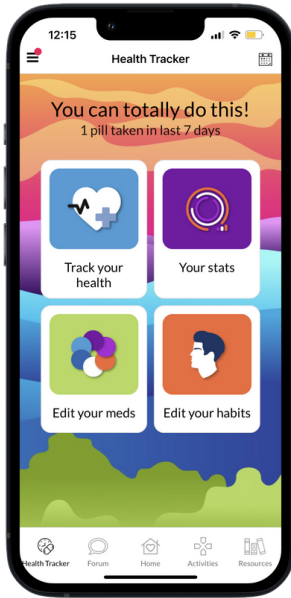
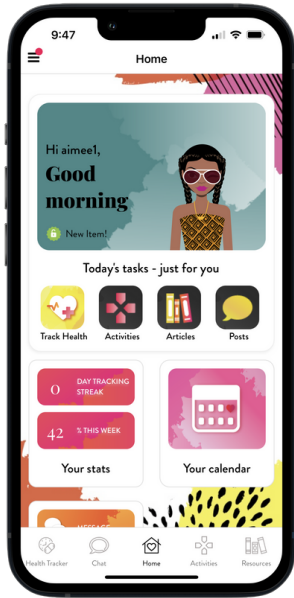
A dedicated group of IDHI research faculty and staff – alongside our technology partners – work together daily to improve the platform and keep content up-to-date, fresh, and relevant. Leveraging a holistic view to health, HMP content covers topics ranging from traditional physical health such as HIV and STI prevention and treatment, depression, and nutrition, to social and environmental factors influencing health like housing, discrimination, faith, and spirituality.

HMP has hosted over 20 research projects domestically and globally related to health and wellness among various populations.

HMP PROJECT LOCATIONS (Active and Completed)



HealthMpowerment Example Screenshots



Subject Matter Research Consultants

The Subject Matter Research Consultants (SMRCs) within IDHI are a dedicated group of **young people who provide consultation** on research, study development, implementation, and relevant social media trends.

Hired as part-time FSU employees, the SMRCs are recognized for their central importance to IDHI research studies and employment offers them extensive career development and training opportunities. IDHI faculty and staff have been intentional about seeking out and hiring **young professionals that reflect the target demographic of the studies we conduct, which, in turn, enhances the projects and cultivates reciprocal working relationships for people from marginalized backgrounds.**

The group is led by Adrian Williams (IDHI Youth Engagement Manager) and Judah Dean (IDHI Research Communications Manager).



IRIS Hub Program Highlights

- Dr. Budhwani assumed the **FSU Clinical and Translational Science Award KL2 / K2R Co-Directorship**. The FSU K2R Scholar Program is designed to create a community of postdocs, junior faculty, and mentors who work together on enhanced career development and set FSU's junior researchers on a path to independence.



- Dr. Budhwani became a member of the **Motivational Interviewing Network of Trainers (MINT)**, an invite-only international society of those with advanced skill in Motivational Interviewing training.
- Dr. Budhwani concluded her **Visiting Professorship** with the University of California, San Francisco (UCSF) Center for AIDS Prevention Studies (CAPS).
- Dr. Budhwani renewed her **commitment to the McWane Science Center Board of Trustee**. The McWane Science Center is Alabama's premier science center addressing gaps in STEM-education across the state.



Awards



Dr. Hightow-Weidman received the **HIV/Sexual Health SIG Mentoring Award** at the Society for Behavioral Medicine Conference in April 2023.



Carissa Crews, IDHI Digital Platform Coordinator, received the **Rising Star Award** at the North Carolina Sexual Health Conference in May 2023.

Invited Presentations



Dr. Hightow-Weidman was invited to present “Digital Technologies for Supporting Adherence” at the **Conference on Retroviruses and Opportunistic Infections (CROI)** in Seattle, Washington (February 2023).



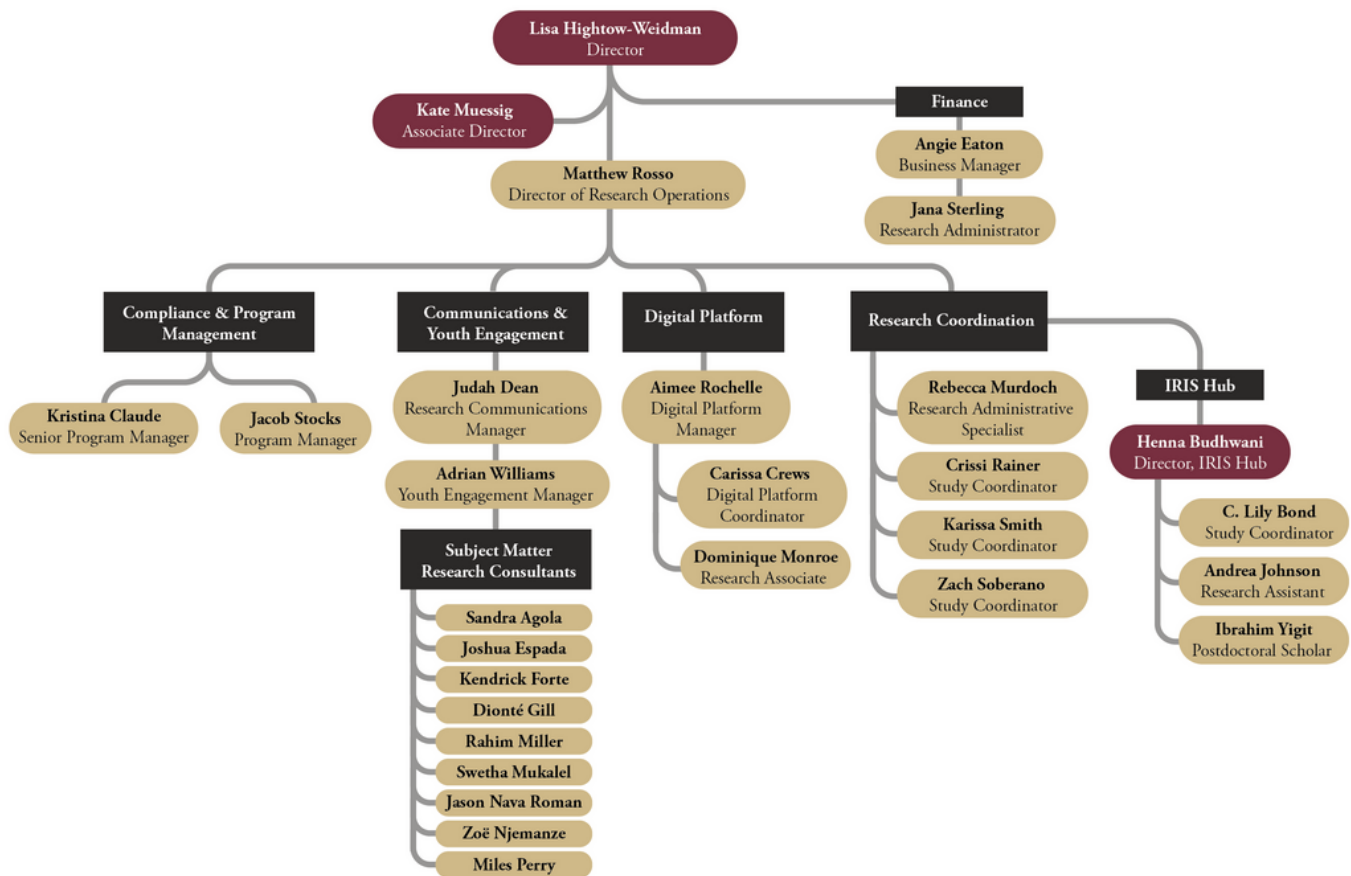
Dr. Muessig was invited to present “HIV Research and Disparities” as a faculty panelist as part of the **NIH-funded Stimulating Training & Access to HIV Research Experiences (STAR) grant Designathon** (February 2023).



Dr. Muessig was invited to present “Considering stigma at different stages on HIV prevention and care interventions – examples from development, implementation, evaluation, and dissemination” at the **University of North Carolina Center for AIDS Research, Stigma Research Interest Group** (March 2023).

Organizational Chart

[Click here](http://bit.ly/IDHlorgchart) (bit.ly/IDHlorgchart) to view a larger version of the IDHI organizational chart.



Dates of Service

IDHI



Dr. Lisa Hightow-Weidman | Director
October 2022 – present

Dr. Kathryn Muessig | Associate Director
December 2022 – present

IRIS Hub



Dr. Henna Budhwani | Director
July 2023 – present

IDHI Funding



Employment

3 Faculty (FTE) members

15 A&P and USPS positions (FTE)

10 OPS positions

1 Postdoctoral Scholar position

29 **Total positions**



Grant Information

The \$72.7M NIH grant mentioned throughout this report is a 7-year grant. The grant is currently wrapping up its first year and therefore has six years remaining.



22 proposals submitted in FY23



22 proposals funded in FY23



19 proposals made jointly with individuals not directly associated with the institute in FY23

\$16,349,154 **Total dollar amount of awards**

Services Provided

8

Technical Assistance sessions or seminars offered

IDHI Research



Active Projects



Adolescent Medicine Trials Network V

The ATN will design, develop, and conduct clinical trials and implementation science research studies, and engaged youth participants into rigorously designed, collaborative protocols to address these high priority areas:

- Undiagnosed HIV infection: novel strategies to increase diagnosis
- Persistent new HIV infections: safety, PK/PD, acceptability and efficacy of novel biomedical HIV preventives
- Poor HIV care engagement: novel strategies to improve engagement in HIV care (eg, same day ART) that leverage collaborations with community and public health partners
- Poor ART adherence: safety, PK/PD, acceptability and efficacy of novel biomedical HIV treatments (including prevention)
- Adverse HIV health outcomes from COVID-19

The ultimate goals of the ATN research portfolio include generating evidence and recommendations to advance the field of adolescent HIV medicine; influence clinical practice and protocols; reduce inequities in HIV-related outcomes; and inform community scale-up of sustainable, impactful biobehavioral interventions that reduce HIV transmission and improve individual outcomes for youth living with HIV.

Learn more about the ATN on page 5.

Active Projects



Expanding PrEP in Communities of Color (EPICC+)

Expanding PrEP in Communities of Color (EPICC+) seeks to adapt existing evidence-based provider and patient education and support tools and materials for use among young sexual minority men and to train providers in the use of the EBT to facilitate HIV pre-exposure prophylaxis (PrEP) shared decision making



HealthMpowerment Platform

HealthMpowerment (HMP) is an app designed to provide health and wellness information and resources relevant to young people in the United States. HMP covers a range of health and lifestyle topics to support users' diverse backgrounds and varying needs over time. Learn more about HMP on page 19.



HMP Stigma

HMP Stigma is an app-delivered intervention designed with and for young, Black and Latinx gay, bisexual and other sexual minority men and transgender women. The intervention aims to improve HIV prevention and care by providing a platform where participants can find social support, build community, and engage with issues that matter to them.

Active Projects



Keeping It Lite (LITE-2)

Keeping It LITE: Exploring HIV Risk in Vulnerable Youth with Limited Interaction and Digital Health Intervention (LITE-2) is a national longitudinal cohort study specific to sexual and gender minority adolescents that examines and models the trajectories of sexual behavior, gender identity development, HIV transmission risk and HIV prevention engagement of sexual and gender minority adolescents (inclusive of gender diverse and non-binary individuals) ages 13-34 over time.



Kings

Adapting, Pilot Testing a Behavioral Intervention to Incorporate Advances in HIV Prevention for Black Young Sexual Minority Men in Alabama (Kings) will adapt and test Brothers Saving Brothers, a brief two-part intervention that has been shown to increase rates of HIV testing and acceptance of prevention education in Midwest Black young sexual minority men, but has not been adapted for the South.



mMIST

Mobile MIST (Medical Information Services via Telephone) will adapt and test a 24/7 mHealth support system for primary providers who provide healthcare to pregnant women in Cameroon.

Active Projects



SAM-KAP

Survey of Adolescent MSM Knowledge and Preferences (SAM-KAP) will conduct a one-time online qualitative assessment with sexual minority men in Alabama who are adolescents aged 14-17.

In Alabama, the undiagnosed HIV rate is over 20%, and school-based comprehensive sexual health education is illegal. School-based sexual health education must be abstinence-based, and HIV prevention is only discussed within the context of marriage. In response to these structural limitations, CBOs have developed their own sexual health and HIV prevention education programs; however their content is typically not tailored for sexual minority youth.

While increasing HIV testing and PrEP uptake among young sexual minority men (YSMM) is urgently warranted and federal and local agencies are supporting behavioral interventions to reach this group, adolescent sexual minority men will not engage in HIV testing if they do not understand their risk. There is an unmet need to deliver tailored HIV prevention interventions for young male sexual minority youth which may also enhance the effectiveness of HIV prevention interventions for older male sexual minority youth.

Active Projects



PrEPresent

Funded by the National Institute on Drug Abuse, PrEPresent is a study to develop and pilot test a PrEP activation, navigation and support intervention for Black and Latinx young sexual minority men in the Los Angeles metro area. These youth not only have the highest annual incidence of HIV but also are the least likely to have ever used pre-exposure prophylaxis (PrEP). There is very clear evidence demonstrating that, while young sexual minority men have high levels of knowledge and intentions to use PrEP, few have used PrEP. Our goal is to address known barriers of engagement along the PrEP and HIV care continua to change that.



Tough Talks COVID

Tough Talks COVID's goal is to adapt and test the efficacy of Tough Talk's COVID app. The app uses activities, videos, choose-your-own adventure stories to inform vaccine hesitant youth within the African American community. The app is intended to help African American youth to learn more about the COVID vaccine, so they can make an informed decision about receiving the vaccine. The app consists of animated videos, choose-your-own-adventure, personal accounts from other youth, and more to teach participants about the COVID vaccine. We recruited African American youth aged 18-29 in North Carolina, Alabama, and Georgia to be part of this study.

Active Projects



STARR-NC

Supporting Tailored and Responsive PrEP in Rural North Carolina (STARR-NC) will collaborate with local, rural STI clinics in order to increase the uptake in PrEP amongst young sexual minority men.

The Phase 1 study is a randomized trial of a multilevel PrEP intervention strategy in rural NC sexually transmitted infection (STI) clinics, with primary outcome of PrEP uptake within 3 months of an index STI clinic visit. Participants will be randomized 1:1 to an intervention or control condition.

Participants enrolled in the intervention arm will receive a multi-level intervention with three components: a PrEP Navigator to facilitate linkage to PrEP services and completion of applications for health insurance/drug assistance; a Digital Health Intervention (DHI) platform (HealthMpowerment) – a HIPAA-compliant evidence-based DHI that provides interactive educational resources, social support, and tools for developing PrEP behavioral skills and self-efficacy; and referral to Telehealth PrEP services as an option for linking to PrEP care.

Control arm participants will receive the standard PrEP referral services available in a given clinic setting. They will also receive linkage to a limited version of the DHI, with basic PrEP resources and information.

Projects In Analysis



Adolescent Medicine Trials Network IV

The Adolescent Medicine Trials Network for HIV Interventions (ATN) research program aims to defeat the HIV epidemic among adolescents and young adults in the United States.

Under the ATN, the BATLab at UNC, now known as the IDHI at FSU, housed the Center for Innovative Technology (iTech) research network which included twelve research projects.



AllyQuest 2.0

AllyQuest is an interactive mobile phone intervention for young sexual minority men living with HIV and young transgender women who have sex with men and are living with HIV. AllyQuest utilizes social networking, game-based mechanics and a story-based framework to guide behavior change.

Grounded in Social Cognitive Theory, narrative communication and the principles of persuasive technology, the intervention is designed to capitalize on social involvement and target the identified barriers to care among newly diagnosed youth, namely low HIV literacy, lack of support, and internalized stigma.

Projects In Analysis



PrEP Options, Exploring Messages to Plan for Sex (POEMS)

The POEMS research study aims to learn how we can help young men find a PrEP option that works best with their usual sex routine. Participants didn't need to be using PrEP to be in the study, but we did need their help to understand how folks typically do or don't plan for sex. Through the use of online surveys and daily text messages, we asked questions about any sex they've had in the past 24 hours, and whether they thought they'd have sex or were planning to have sex in the next 24 hours.



PrEPared, Protected, emPowered (P3)

P3 is a three arm, randomized-controlled trial (RCT) that tested the efficacy of the P3, a novel, theory-based mobile app that utilizes game mechanics and social networking features to improve PrEP adherence, retention in PrEP clinical care and PrEP persistence among young sexual minority men and transgender women who have sex with men, ages 16-24. We tested the efficacy of P3 and P3+, which adds Next Step Counseling delivered by an adherence counselor through the app, against PrEP standard of care. Participants were randomized to P3, P3+, or standard of care. A cost comparison between P3 and P3+ was conducted.

Publications

View all IDHI publications on [our website](https://idhi.fsu.edu/publications) (<https://idhi.fsu.edu/publications>).

35 **Faculty** publications

9 **Student** publications

34 Publications **authored jointly** with faculty at **locations other than FSU**

1 **Student** dissertation published

Conference Publications



9 national conference papers submitted

9 national conference papers accepted



4 international conference papers submitted

4 international conference papers accepted



1 regional conference paper submitted

1 regional conference paper accepted

Questions?

Contact idhi@fsu.edu

