Date: June 1, 2018

DUKE GLOBAL HEALTH INSTITUTE

Sara H. LeGrand, PhD

Dr. Sara LeGrand is a health services researcher with over 7 years of post-PhD experience in global health research, with an additional 4 years of evaluation experience prior to completing her PhD. Dr. LeGrand is currently an Assistant Research Professor in the ***Duke Global Health Institute*** (DGHI) – Center for Health Policy & Inequalities Research which focuses on population-based health research, health systems research, and intervention and evaluation research. She has held a position at Duke for 10 years, including 8 years as a research faculty member. Dr. LeGrand has extensive experience conducting qualitative and quantitative research related to HIV prevention and care with findings published in peer-reviewed journals. She currently serves as principal investigator or investigator for numerous federally funded HIV care and prevention grants. Her research has focused on reducing HIV disparities among sexual and gender minorities. She is particularly interested in the design and evaluation of digital health interventions to address HIV disparities among these populations. For example, Dr. LeGrand's research includes developing and testing theory-based mobile phone apps that use gamification principles and social networking to improve antiretroviral adherence among HIV-positive young men who have sex with men (YMSM) and young transgender women who have sex with men (YTWSM) and pre-exposure prophylaxis adherence among HIV-negative YMSM and YTWSM. Her research experiences, along with her doctoral studies in health services research, have provided her with strong research design, implementation, and qualitative and quantitative analysis skills.

Dr. LeGrand is expanding her research on sexual and gender minorities, with a particular interest in understanding social determinants of health that negatively and positively contribute to mental, physical, and social health outcomes; health behaviors; and, access to health care across the life course in different locations around the world. The ultimate goal of this work is to identify culturally relevant strategies at the individual, interpersonal, community, and structural/policy level that can improve the health and wellbeing of sexual and gender minorities globally.

EDUCATION

Ph.D., Health Services Research — May 2010
The University of North Carolina at Charlotte

M.S., Health and Physical Education — Aug 2001
Winthrop University, Rock Hill, SC

B.S., Outdoor – Physical Education — Dec 1998
Winthrop University, Rock Hill, SC

PROFESSIONAL EXPERIENCE

Assistant Research Professor — 2013 – present
Center for Health Policy and Inequalities Research (CHPIR)
Duke Global Health Institute (DGHI)
Duke University, Durham, NC

Assistant Research Professor — 2015 – 2017

Duke Kunshan University (DKU)
Kunshan, Jiangsu Province, China

Research Scholar 2010 – 2013
Center for Health Policy and Inequalities Research (CHPIR)
Duke Global Health Institute (DGHI)
Duke University, Durham, NC

Associate in Research 2008 – 2010
Center for Health Policy and Inequalities Research (CHPIR)
Duke University, Durham, NC

Adjunct Instructor 2008 – 2009
University of North Carolina at Charlotte
Charlotte, NC

Lead Facilitator 2008 – 2009
BART Text Messaging Project, University of North Carolina at Charlotte
Charlotte, NC

Research / Teaching Assistant 2005 – 2008
University of North Carolina at Charlotte
Charlotte, NC

Director of HIV Prevention Services 2003 – 2005
Catawba Care Coalition
Rock Hill, SC

School Health Coordinator 2001 – 2003
Rock Hill School District Three
Sullivan Middle School, Rock Hill, SC

Program Coordinator 2000 – 2001
Catawba Care Coalition HIV Prevention Collaboration
Rock Hill, SC

Research / Teaching Assistant 1999 – 2001
Winthrop University
Rock Hill, SC

TEACHING EXPERIENCE

Courses taught

Instructor
"Research Independent Study in Global Health" (GLHLTH 393) 2016
Duke Global Health Institute, Duke University, Durham, NC

Instructor
"Global Health Promotion", Global Health Certificate Program 2016

Duke Kunshan University, Kunshan, Jiangsu Province, China

Instructor
"Fundamentals of Global Health" (GLHLTH 101) 2015 – present
Duke Global Health Institute, Duke University, Durham, NC

Instructor
"Social Determinants of Health: China and the World" (GLHLTH 305K) 2015 – 2017
Duke Kunshan University, Kunshan, Jiangsu Province, China

Instructor 2013 – 2015
"Global Health Connections" (GLHLTH 395, 595)
Duke Global Health Institute, Duke University, Durham, NC

Instructor 2008 – 2009
"Health and Quality of Life" (LBST 2214)
Department of Social Work, Department of Public Health Sciences
University of North Carolina at Charlotte, NC

Instructor 2006 – 2008
"Healthy Lifestyles" (HLTH 2101)
Department of Public Health Sciences
University of North Carolina at Charlotte, NC

Instructor 2002
"Coordinated School Health Model: School-Community Collaboration Process"
Winthrop University, Rock Hill, SC

Guest Lectures

"Sexual and gender minority human rights and health" 2018
In *Global Reproductive Health* (GLHLTH 215),
Duke Global Health Institute
Duke University, Durham, NC

"Social networks, artificial intelligence and global health" 2018
In *Introduction to mHealth* (GLHLTH 590S),
Duke Global Health Institute
Duke University, Durham, NC

"Social networks, social media and global health" 2016, 2017
In *Introduction to mHealth* (GLHLTH 590S),
Duke Global Health Institute
Duke University, Durham, NC

"Leveraging technology to improve HIV medication adherence among young HIV-positive men who have sex with men." 2015
In *DKU Global Health Seminar Series,*
Duke Kunshan University
Kunshan, Jiangsu Province, China

"Introduction to the social determinants of health." 2015
In *Fundamentals of Global Health* (GLHLTH 101K),
Duke Kunshan University
Kunshan, Jiangsu Province, China

"mHealth: A real world example." 2015
In *Global Healers: Duke Summer Academy,*
Duke University, Durham, NC

"Introduction to mHealth research." 2014
In *Global Health Research: Design and Practice* (GLHLTH 702),
Duke Global Health Institute
Duke University, Durham, NC

"Leveraging technology to improve health outcomes among minority men who have sex with men." 2014
In *Profiles in Sexuality Research,*
Center for Sexual and Gender Diversity
Duke University, Durham, NC

"Principles of eHealth & mHealth research." 2013
In *Global Health Research: Design and Practice* (GLHLTH 702),
Duke Global Health Institute
Duke University, Durham, NC

"Qualitative data analysis: A real world example." 2012
In *Research Methods*,
College of Medicine
University of Malawi, Malaw

"The health care system in the Czech Republic." 2009
In *Global Health Issues* (HLTH 4280),
University of North Carolina at Charlotte.

Workshops

Co-facilitator 2011
Methodological options for the evaluation of UNICEF-supported pro-equity programs in Middle Eastern and Northern African Countries. Funded by UNICEF.

EDUCATION TRAINING ACTIVITIES

Principal Investigator, Bass Connections 2013 – 2014
Global Health Theme of the Bass Connections initiative. The Bass Connections initiative brings together Duke faculty, undergraduate, graduate and professional students, and community partners to address complex research issues. The 2013 pilot project, "North Carolina Latino Health Project," focused on understanding and addressing health disparities related to intimate partner violence in the Latino community in Durham, NC. The team included five undergraduate students and four graduate and professional students from various areas of study (e.g., global health, economics, nursing, medicine,

public policy). The 2014 project, "Juntos: A Digital Health Intervention," adapted an internet and mobile phone based HIV prevention intervention for Latino men who have sex with men. The team included five undergraduate students and four graduate and professional students from various fields of study (e.g. global health, economics, biology, nursing, medicine).

Undergraduate Student Mentorship
Biancha Bracht, Biomedical Engineering, 2015
Briana Acosta, Global Health, Cultural Anthropology, independent study, thesis committee, 2016-2017
Nava Barman, Global Health, Biology, 2016-present
Brooke Whitfield, Global Health, Public Policy, thesis committee, 2016-2017
Mathama Bility, Public Policy, Global Health minor, 2017-2018

Master's Student Mentorship
Dominic Lucero, Global Health, 2013-2015
Minhui Yang, Global Health, thesis committee, 2015
Eeshan Khandekar, Global Health, thesis committee, manuscript co-author, 2015
Mengshu Shao, Biostatistics, 2015
Meng Chen, Biostatistics, 2015
Ginny De La Cruz, Global Health, Duke Kunshan University, thesis committee, 2016
Phoebe Huo, Global Health, thesis committee chair, 2015-2017
Wenting Huang, Global Health, Duke Kunshan University, thesis field work supervisor, thesis committee, 2016-2017
Taylor Allen, Global Health, Duke Kunshan University, thesis committee, 2017

PhD Student Mentorship
Seul Ki Choi, Health Behavior, UNC, dissertation committee, 2015-present

PUBLICATIONS

Refereed Journal Articles

Hightow-Weidman L, Muessig K, Knudtson K, Srivatsa M, Lawrence E, **LeGrand S**, Hotton A, Hosek S. A gamified smartphone app to support engagement in care and medication adherence for HIV-positive young men who have sex with men (AllyQuest): Development and pilot study (2018). *JMIR Public Health and Surveillance,* 4(2): e34.

LeGrand S, Muessig KE, Platt A, Soni K, Egger JR, Nwoko N, McNulty T, Hightow-Weidman LB. Epic Allies, a gamified mobile phone app to improve engagement in care, antiretroviral uptake, and adherence among young men who have sex with men and young transgender women who have sex with men: Protocol for a randomized controlled trial (2018). *JMIR Research Protocols*, 7(4): e94.

Lechuga J, Galletly CL, Broaddus MR, Dickson-Gomez JB, Glasman LR, McAuliffe TL, Vega MY, **LeGrand S**, Mena CA, Barlow ML, Valera E, Montenegro JI (2017). The development and psychometric properties of the Immigration Law Concerns Scale (ILCS) for HIV testing. *Journal of Immigrant and Minority Health*. Epub ahead of print.

LeGrand S, Muessig KE, Horvath KJ, Rosengren AL, Hightow-Weidman LB (2017). Using technology to support HIV self-testing among MSM. *Current Opinions in HIV and AIDS,* 12(5), 425-431.

Hightow-Weidman L, **LeGrand S**, Choi SK, Egger J, Hurt CB, Muessig KE (2017). Exploring the HIV continuum of care among young black MSM. *PLoS One,* 12(6): e0179688.

Muessig KE, **LeGrand S,** Horvath KJ, Bauermeister JA, Hightow-Weidman LB (2017). Recent mobile health interventions to support medication adherence among HIV-positive MSM. *Current Opinions in HIV and AIDS,* 12(5), 432-441.

Horvath KJ, Lammert S, **LeGrand S**, Muessig KE, Bauermeister JA (2017). Using technology to assess and intervene with illicit drug-using persons at risk for HIV. *Current Opinions in HIV and AIDS,* 12(5), 458-466.

Menza TW, Choi SK, **LeGrand S**, Muessig K, Hightow-Weidman L (2017). Correlates of self-reported viral suppression among HIV-positive, young, black men who have sex with men participating in a randomized controlled trial of an internet-based HIV prevention intervention. *Sexually Transmitted Diseases*, Epub ahead of print.

Hightow-Weidman LB, Muessig KE, Bauermeister JA, **LeGrand S**, Fiellin LE (2017). The future of digital games for HIV prevention and care. *Current Opinions in HIV and AIDS,* 12(5), 501-507.

LeGrand S, Muessig KE, McNulty T, Soni K, Knudtson K, Lemann A, Nkechinyere N, Hightow-Weidman LB (2016). Epic Allies: Development of a gaming app to improve antiretroviral therapy adherence among young HIV-positive men who have sex with men. *JMIR Serious Games,* 13;4(1):e6.

Baltierra NB, Muessig KE, Pike EC**, LeGrand S**, Bull SS, Hightow-Weidman, LB (2016). More than just tracking time: Complex measures of user engagement with an internet-based health promotion intervention. *Journal of Biomedical Informatics*, 59, 299-307.

Proeschold-Bell R, Eisenberg A, Adams C, Smith B, **LeGrand S**, Wilk A (2015). The glory of God is a human being fully alive: Predictors of positive versus negative mental health among clergy. *Journal of the Scientific Study of Religion,* 54(4), 702-721.

LeGrand S, Reif S, Sullivan K, Murray K, Barlow ML, Whetten K (2015). A review of recent literature on trauma among individuals living with HIV. *Current HIV/AIDS Reports*, 12(4), 397-405

Hightow-Weidman LB, Muessig KE, Bauermeister J, Zhang C, **LeGrand S** (2015). Youth, technology, and HIV: Recent advances and future directions. *Current HIV/AIDS Reports*, 12(4), 500-515.

Hightow-Weidman LB, Muessig KE, Pike EC, **LeGrand S**, Baltierra N, Rucker AJ, Wilson PW (2015). HealthMpowerment.org: Building community through a mobile-optimized, online health promotion intervention. *Health Education and Behavior*, 42(4), 493-499.

Muessig KE, Baltierra NB, Pike EC, **LeGrand S**, Hightow-Weidman LB (2014). Achieving HIV risk reduction through HealthMpowerment.org, a user-driven eHealth intervention for young Black men who have sex with men and transgender women who have sex with men. *Digital Culture & Education*, 6(3), 164-182.

LeGrand S, Muessig KE, Pike EC, Baltierra N, Hightow-Weidman LB (2014). If you build it will they come? Addressing social isolation within a technology-based HIV intervention for young black men who have sex with men. *AIDS Care,* 26(9), 1194-1200.

Reif SS, Whetten K, Wilson ER, McAllaster C, Pence BW, **LeGrand S**, Gong W (2014). HIV/AIDS in the Southern USA: A disproportionate epidemic. *AIDS Care*, 26(3), 351-359.

Reif S, Proeschold-Bell RJ, Yao J, **LeGrand S**, Uehara A, Asiimwe E, Quinlivan EB (2013). Three types of self-efficacy associated with medication adherence in patients with co-occurring HIV and substance use disorders, but only when mood disorders are present. *Journal of Multidisciplinary Healthcare*, 6, 229-237.

Muessig KE, Pike E, Fowler B, **LeGrand S**, Parsons J, Bull S, Wilson P, Wohl D, Hightow-Weidman LB (2013). Putting prevention in their pockets: Developing HIV mobile phone interventions and applications for Black men who have sex with men. *AIDS Patient Care and STDs*, 27(4), 211-222.

Muessig KE, Pike E, **LeGrand S**, Hightow-Weidman LB (2013). Mobile phone applications for the care and prevention of HIV and other sexually transmitted infections: A review. *Journal of Medical Internet Research*, 15(1).

LeGrand S, Proeschold-Bell RJ, James J, Wallace A (2013). Healthy Leaders: Multilevel health promotion considerations for diverse United Methodist Church pastors. *Journal of Community Psychology*, 41(3), 303-321.

Hightow-Weidman LB, Phillips G, Outlaw AY, Wohl AR, Fields S, Hildago J, **LeGrand S** (2013). Patterns of HIV disclosure and condom use among HIV-infected young racial/ethnic minority men who have sex with men. *AIDS and Behavior*, 17(1), 360-368.

Reif SS, Pence BW, **LeGrand S**, Wilson ES, Swartz M, Ellington T, Whetten K (2012). In-home mental health treatment for individuals with HIV. *AIDS Patient Care & STDs*, 26(11), 655-661.

Proeschold-Bell RJ, **LeGrand S** (2012). Physical health functioning among United Methodist clergy. *Journal of Religion and Health*, 51(3), 734-742.

Proeschold-Bell RJ, **LeGrand S**, Wallace A, James J, Moore H, Swift R, Toole D (2012). Tailoring health programming to clergy: Findings from a study of United Methodist clergy in North Carolina. *Journal of Prevention and Intervention in the Community*, 40(3), 246-261.

Wallace A, Proeschold-Bell RJ, **LeGrand S**, James J, Swift R, Toole D, Toth M (2012). Health programming for clergy: An overview of Protestant programs. *Pastoral Psychology*, 61(1), 113-143.

Proeschold-Bell RJ, **LeGrand S**, James J, Wallace A, Adams C, Toole D (2011). A theoretical model of the holistic health of United Methodist clergy. *Journal of Religion and Health*, 50(3), 700-720.

Proeschold-Bell RJ, **LeGrand S** (2010). High rates of obesity and chronic disease among United Methodist clergy. *Obesity*, 18(9), 1867-1870.

Cornelius JB, **LeGrand S**, Jemmott LS (2009). African American grandfamilies' attitudes and feelings about sexual communication: Focus group results. *Journal of the Association of Nurses in AIDS Care*, 20(2), 133-140.

Cornelius JB, Moneyham L, **LeGrand S** (2008). Adaptation of an HIV prevention curriculum for use with older African American women. *Journal of the Association of Nurses in AIDS Care*, 19(1), 16-27.

Cornelius JB, **LeGrand S** (2008). African American grandparents' and adolescent grandchildren's sexuality communication. *Journal of Family Nursing*, 14(3), 333-346.

Book chapters

LeGrand S, Scheid TL, Whetten K (2016). The differential impact of social relationships on health outcomes for HIV positive men and women. In: Kronenfeld J, editor. Research in the Sociology of Health Care: Emerald Group Publishing. p. 153-174.

Muessig KE, Baltierra NB, Pike EC, **LeGrand S**, Hightow-Weidman LB. Achieving HIV risk reduction through HealthMpowerment.org, a user-driven eHealth intervention for young black men who have sex with men and transgender women who have sex with men. In: Walsh CS, editor. Transforming HIV Prevention & Care for Marginalised Populations. Digital Culture & Education online Open Access Book. p. 211-230.

Working papers

LeGrand S, Toth, M. "HIV/STDs in Guilford County: A comprehensive guide for a way forward." Durham, NC: Center for Health Policy, 2009.

Thesis

Department: Health and Physical Education, Winthrop University.
Research area: Health disparities, HIV/AIDS, American Indians/Alaska Natives
Title: "HIV/AIDS knowledge, attitudes, behaviors, and risk indicators of the people of the Catawba Indian Nation."
Advisor: Shelley D. Hamill

Dissertation

Department: Health Services Research, University of North Carolina at Charlotte.
Research area: HIV/AIDS, social support, health disparities
Title: "Social support and health outcomes among individuals living with HIV in the Deep South."
Advisor: Teresa L. Scheid

CONFERENCE PRESENTATIONS

LeGrand S. How do health disparities impact HIV care and what do we do about it? HIV Care 2018: Clinical Update and Vulnerable Populations Conference, Chapel Hill, NC, May 2018.

Blackburn N, Dong W, **LeGrand S**, Sallabank G, Hightow-Weidman LB, Barry M, Pulley D, Muessig KE. Structure and agency in an online space: A theoretical approach to online community in an HIV intervention among young black men who have sex with men. American Public Health Association Conference, Atlanta, GA, November 2017.

LeGrand S, Craft E. Transgender-specific behavior healthcare for women- what's new?: Carolinas Comprehensive Substance Abuse Services (CADRE) project. National Transgender Health Summit, Oakland, CA, November 2017.

LeGrand S, Muessig KE, Simmons R, Blackburn N, Choi SK, Hightow-Weidman LB. Latent substance use profiles and associations with condomless anal intercourse among a sample of young black men who have sex with men and transgender women in the United States. International AIDS Society Conference, Paris, France, July 2017.

LeGrand S, Pulley D, Blackburn N, Barry M, Sallabank G, Dong W, Harper G, Hightow-Weidman L, Bauermeister J, Choi SK, Muessig K. "I've finally deleted Jack'd (for good)": In-group HIV, sexuality and racial stigma within geospatial networking apps and sexual networking websites. International AIDS Society Conference, Paris, France, July 2017.

Muessig K, Barry M, Dong W, Pulley D, Blackburn N, Sallabank G, **LeGrand S**, Harper G, Choi S, Hightow-Weidman L, Bauermeister J. "How do we as young Black gay men stand strong?": the healthMpowerment online intervention as a space to engage with stigma related to HIV, sexuality, and race. International AIDS Society Conference, Paris, France, July 2017.

Hightow-Weidman LB, Knudtson K, Muessig KE, Srivatsa M, Lawrence E, **LeGrand S**, Kirschke-Schwartz H, Lemos D, Balthazar C, Hosek S. AllyQuest: Engaging HIV+ young MSM in care and improving adherence through a social networking and gamified smartphone app. International AIDS Society Conference, Paris, France, July 2017.

Hightow-Weidman LB, **LeGrand S**, Simmons R, Egger J, Choi SK, Muessig KE. healthMpowerment: Effects of a mobile phone-optimized, Internet-based intervention on condomless anal intercourse among young black men who have sex with men and transgender women. International AIDS Society Conference, Paris, France, July 2017.

Sallabank G, Blackburn N, Dong W, **LeGrand S**, Barry M, Pulley D, Hightow-Weidman L, Harper G, Bauermeister J, Muessig K. "She thought I instantly had AIDS": How media representation influences perception and stigmatization of race, sexuality and HIV among young Black men who have sex with men. International AIDS Society Conference, Paris, France, July 2017.

Muessig KE, **LeGrand S**, Sanon N, Soni K, Nwoko NC, Platt A, Hightow-Weidman LB. "Yes, I'm ready, and I'm taking them!": HIV-infected young men who have sex with men and transgender women evaluate the Epic Allies gamified smartphone app for improving antiretroviral uptake and adherence. International Association of Providers of AIDS Care, 12th International Conference on HIV Treatment and Prevention Adherence, Miami, FL, June 2017.

Bauermeister JA, Muessig KE, **LeGrand S**, Flores D, Choi SK, Dong W, Harper G, Hightow-Weidman LB. Intersectional stigma and psychological distress among young black men who have sex with men: Differences by HIV status. International Association of Providers of AIDS Care, 12th International Conference on HIV Treatment and Prevention Adherence, Miami, FL, June 2017.

LeGrand S. Engage the experts: Using participatory design to develop usable digital health interventions. mHealth@Duke Conference, Durham, NC, April 2017.
LeGrand S, Muessig K, Choi SK, Soni K, Kirschke-Schwartz H, Hightow-Weidman LB. Associations between multiple types of stigma and discrimination and sexual risk behavior among young black men who have sex with men and transgender women in the United States. International AIDS Society Conference, Durban, South Africa, July 2016.

Hightow-Weidman LB, **LeGrand S**, Soni K, Kirschke-Schwartz H, Choi SK, Muessig K. "Technology-related predictors of social isolation among young black men." International AIDS Society Conference, Durban, South Africa, July 2016.

Choi SK, **LeGrand S**, Muessig K, Soni K, Kirschke-Schwartz H, Hightow-Weidman LB. **"**How do safer sex intentions impact HIV sexual risk behavior in young black men who have sex with men? A mediation analysis." International AIDS Society Conference, Durban, South Africa, July 2016.
Hightow-Weidman LB, Muessig K, Kirschke-Schwartz H, Soni K, Choi SK, **LeGrand S**. Beyond behavior: The role of sexual orientation, gender identity and attraction in HIV interventions for young black MSM and transgender women. International AIDS Society Conference, Durban, South Africa, July 2016.

Soni K, Kirschke-Schwartz H, Pike E, Hightow-Weidman L, Muessig K, **LeGrand S**. "Trending topics: Effectively maintaining an online intervention for high-risk and HIV+ young black MSM and transgendered women." National HIV Prevention Conference, Atlanta, GA, December 2015.

Hightow-Weidman L, **LeGrand S**, Soni K, Kirschke-Schwartz H, Pike E, Choi S, Muessig K. "Toward a more nuanced continuum of care for young black MSM." National HIV Prevention Conference, Atlanta, GA, December 2015.

Hightow-Weidman L, **LeGrand S,** Soni K, Pike E, Kirschke-Schwartz H, Muessig K. "Beyond position shaming and Jack'd: Fostering health sexual discussions online." National HIV Prevention Conference, Atlanta, GA, December 2015.

LeGrand S. "Power Walk: Getting your students moving." Duke Center for Instructional Technology Annual Showcase, October 2015.

LeGrand S, Zhou H, Hare B, McClearn D, Russell V. "Teaching at Duke Kunshan University." Duke Center for Instructional Technology Annual Showcase, October 2015.

Hightow-Weidman LB, **LeGrand S**, Muessig KE, Pike EC, Caktus Group. "Epic Allies: Fight Bad Guys, Remember Your Meds, Save the World." International Association of Providers of AIDS Care, Adherence Conference. Miami, June 2015.

LeGrand S. "Leveraging technology to improve HIV prevention and care among young men who have sex with men in the United States." Symposium: Technology Information and Mobile Health – Lessons learned and Challenges for Latin America and the World. QUIPU Andean Global Health Informatics Research and Training Center, Lima, Peru, March 2015.

LeGrand S. "Using social media principles to enhance HIV medication adherence, a case study from "Epic Allies," a gaming and social support-based HIV medication mobile phone application." International Union Against Sexually Transmitted Infections Conference, Bangkok, Thailand, November 2014.

Stringfield B., Walker K., **LeGrand, S.** "Lessons from the field: Implementing a peer-based access to care program in North Carolina, experiences of the clients, peers, and agencies." United States Conference on AIDS, San Diego, CA, October 2014.

LeGrand S., Reif, S. "Intersection of HIV disease and health disparities among older adults in the South." HIV and Aging: Mitochondria to the Metropolis, Atlanta, GA, October 2014.
LeGrand S., Lemann, A. "Epic Allies: A "positively heroic" gaming and social networking app to improve medication adherence among young HIV+ black MSM." Annual Conference on Youth + Tech + Health, San Francisco, CA, April 2014.

Pike EC, Baltierra N, Muessig KE, **LeGrand S**, Bull S, Hightow-Weidman LB. "Level Up! How gamification can be used to spark competition, collaboration, and community in online health behavior interventions." YTH Live, San Francisco, April 2014.

LeGrand S. "Epic Allies: An HIV medication adherence app for young HIV+ black MSM." mHealth@Duke 2014 Conference, Durham, NC, April 2014.

LeGrand, S. "Leveraging technology to improve health outcomes among minority men who have sex with men." Duke mHealth Symposium, Durham, NC, February 2014.

LeGrand S. "Substance use, mental health, and HIV prevention and care: From networks of care to social networking." Duke University Center for AIDS Research Annual Scientific Retreat, Durham, NC, September 2013.

Ashur N, Pittenger R, Garcia-Reyes K, Wong-Choi K, Kapil V, Reed R, Fernandez K, Antunez A, McGraw-Phillips A, Hoffman T, Rocha-Goldberg P, Shirey K, Sullivan K, Barlow M, **LeGrand S.** "Understanding intimate partner violence in the Durham Latino Community." Duke Community Health Engagement Day, Durham, NC, September 2013.

Hightow-Weidman L, Pike E, Baltierra N, Muessig K, **LeGrand S.** "Putting prevention in their pocket: Developing and testing healthMpowerment.org, an interactive, mobile phone and web-based intervention for YBMSM." YTH Live: Annual conference on Youth+Tech+Health, San Francisco, CA, April 2013.

Soni K, Bridger S, Berman S, Jorgens E, Wilmarth T, Hightow-Weidman L, Proeschold-Bell RJ, **LeGrand S.** "Formative research to inform the development of a PrEP adherence cell phone app for young MSM." YTH Live: Annual conference on Youth + Tech + Health, San Francisco, CA, April 2013.

Reif S, **LeGrand S**, Wilson E. "HIV/AIDS Substance Abuse Care Creation Project." Duke University Center for AIDS Research Annual Scientific Retreat, Durham, NC, September 2012.

Muessig K, Pike E, **LeGrand S**, Hightow-Weidman L. "A systematic review of mobile phone applications for HIV care and prevention." International AIDS Conference, Washington, DC, July 2012.

Reif S, Whetten K, Wilson E, **LeGrand S**. "Home-based mental health services are associated with improved mental health outcomes among individuals with HIV." International AIDS Conference, Washington, DC, July 2012.

Hightow-Weidman L, **LeGrand S.** "Adding Community Features to HealthMpowerment.org: An HIV/STI Internet Intervention for Young Black MSM." SexTech: Annual ISIS Conference on New Media, Youth and Sexual Health, San Francisco, CA, April 2012.

Reif S, **LeGrand S.** "Collaborative HIV/AIDS Mental Health Treatment Program." Duke University Center for AIDS Research Annual Scientific Retreat, Durham, NC, September 2011.

LeGrand S. "The Social Determinants of Health and HIV/AIDS in the Deep South: Findings from the Coping with HIV/AIDS in the Southeast Study." Southern Regional Housing and HIV/AIDS Research Summit, New Orleans, LA, April 2010.

Carrick J, Cornelius J, Street D, **LeGrand S.** "Nursing students' knowledge and attitudes regarding lesbian, gay, bisexual, and transgender health concerns." Northeast Sigma Theta Tau Research Conference, April 2008.

LeGrand SH, Scheid TL. " Mental health consequences of HIV disease in substance users: The mediating effects of physical health status, social support, and substance use. American Public Health Association Conference, November 2007.

Cornelius JB, **LeGrand SH**, McDonald D. "Adaptation of an HIV prevention curriculum for older African American women." Southern Nursing Research Society Conference, Galveston, TX, February 2007.

LeGrand SH, Cornelius JB, Moneyham L. "African American men who have sex with men and HIV/AIDS: A review of the literature." University of North Carolina Minority Health Conference, Chapel Hill, NC, February 2007.

Cornelius JB, **LeGrand SH**. "WOMAN: Adaptation of an HIV prevention curriculum." South Carolina HIV/STD Conference, Myrtle Beach, SC, October 2006.

Cornelius JB, **LeGrand SH**. "SISTA to WOMAN: Adaptation of an HIV prevention curriculum." Sigma Theta Tau International Conference, Montreal, Canada, July 2006.

LeGrand S, Hamill S. "HIV/AIDS knowledge, attitudes, behaviors, and risk indicators of the people of the Catawba Indian Nation." American Alliance of Health, Physical Education, Recreation and Dance Conference, San Diego, CA, March 2002.

LeGrand S, Hamill S. "HIV/AIDS and American Indians and Alaska Natives." Southern Academy of Women in Physical Activity, Sport, and Health Conference, Memphis, TN, October 2000.

HONORS & AWARDS

Outstanding Faculty Award, Center for Sexual and Gender Diversity 2014
Duke University, Durham, NC

Health Disparities Research Loan Repayment Program Award, 2013, 2015
National Institutes of Health

Mary Roland Griffin Award for Outstanding Health Education Graduate Student 2001
Winthrop University, Rock Hill, SC

Dorothy E. Jones Women's Studies Scholarship 1997, 1999, 2001
Winthrop University, Rock Hill, SC

AD HOC JOURNAL PEER REVIEWER

AIDS Care
American Journal of Public Health
BMC-Health Services Research
Health Education and Behavior
Journal of Medical Internet Research

Journal of Medical Internet Research- Public Health Surveillance
Journal of Medical Internet Research- Research Protocols
Journal of Medical Internet Research- mHealth/uHealth
Sexually Transmitted Diseases
PLOS One
Psychology, Health and Medicine
Substance Use and Misuse

RESEARCH SUPPORT

Current Support

TI080680: SAMHSA (mPIs: LeGrand & Reif) 09/2017-09/2022
Community Resources for Empowerment and Wellness (CREW)
This SAMHSA Targeted Capacity Expansion grant provides funding to implement and evaluate a program that provides a comprehensive substance abuse services for minority individuals with HIV and minority MSM and transgender women at high risk for HIV in NC.
Role: mPI

U19 HD089881-03 (8779): NICHD (mPIs: LeGrand & Hightow-Weidman) 09/2017-08/2021
Prepared, Protected, emPowered (P3): A PrEP adherence app for YMSM and YTWSM
This study will refine and test the efficacy of a mobile phone app that uses social networking and game mechanics to improve PrEP adherence among YMSM and YTWSM.
Role: mPI

R44MH104102-03: NIMH (mPIs: Hightow-Weidman & Larsen) 06/2017 - 05/2020
Tough Talks: A Disclosure Intervention for HIV-positive YMSM
In this study, we will further refine and enhance Tough Talks™, a disclosure intervention for HIV-positive young men who have sex with men, and develop a full-feature version to test via a multi-site study.
Role: Investigator

R01MD011573-01: NIMH/NIMHD (PI: Galletly) 10/2016-05/2021
Perceived Immigration Laws Impact on Hispanic Immigrants HIV Health Behavior
This study is examining the influence of US immigration-related laws and policies, and US Hispanic immigrants' beliefs and concerns about immigration laws on their willingness and actual utilization of healthcare and resources related alcohol and drug use disorders, intimate partner violence, and HIV testing.
Role: Site-PI

U19 HD089881-03: NICHD (mPIs: Sullivan & Hightow-Weidman) 09/2016-08/2021
The UNC/Emory Center for Innovative Technology (iTech) Across the Prevention and Care Continuum, Analytic Core
iTech is one of three networks within the NIH Adolescent Medicine Trials Network for HIV/AIDS (ATN). The iTech Analytic Core provides qualitative and quantitative analytic support for the ten studies conducted within the iTech network.
Role: Investigator

R21 MH1-5292-01A1: NIMH (mPIs: Muessig & Bauermeister) 04/2015-07/2018
Addressing stigma among Black MSM in a mobile phone and Internet intervention
This study assesses how YBMSM are utilizing an online social support platform to address the multiple stigmas they face in their daily lives.
Role: Investigator

TI024350-03: SAMHSA (mPIs: LeGrand & Reif) 09/2012-09/2018
Carolinas Comprehensive Substance Abuse Services Project (CADRE)
This SAMHSA Targeted Capacity Expansion grant provided funding to develop and test a program that provided comprehensive substance abuse services for minority individuals with HIV in NC.
Role: mPI

Select Prior Support

DGHI/Sanford Pilot Research (mPIs: LeGrand & Whetten) 10/2017 – 12/2017
Wellbeing of Sexual and Gender Minorities in LMICs
The purpose of this pilot research project was to collect preliminary quantitative and qualitative data to examine mental health among SGM in LMICs, including symptoms of depression, anxiety, PTSD, and suicidality; physical health; and health care seeking practices, as well as political, cultural, societal, and contextual factors associated with these outcomes. The findings from this study provide preliminary data for the proposed study.
Role: mPI

DGHI Pilot Research (PI: LeGrand) 02/2016-12/2017
Mental Health among MSM in Chongqing, China
The purpose of this pilot study was to use social media recruitment strategies to collect quantitative data on mental health outcomes, factors predicting mental health outcomes, and relevant strategies for mental health interventions among MSM in Chongqing, China.
Role: PI

R43HD088319-01: NICHD (mPIs: Hightow-Weidman & Larsen) 06/2016-05/2017
Test Rehearsal: Improving the HIV testing experience for YMSM
This study developed a virtual reality intervention to increase HIV testing uptake among adolescent MSM by providing realistic character-driven scenarios that allow youth to actively experience the HIV testing process.
Role: Investigator

R44 MH102096-02: NIMH (mPIs: Hightow-Weidman & McNulty) 12/2014-12/2017
Epic Allies: A smartphone app for ART uptake and adherence among YMSM/YTWSM
This multi-site study tested the efficacy of the Epic Allies mobile phone gaming and social networking app intervention for YMSM/YTWSM, ages 16-24.
Role: Investigator

Trent Memorial Foundation Endowment Fund (PI: LeGrand) 07/2014-07/2015
HIV Prevention and Care for Men Who Have Sex with Men in Bolivia and Peru
This grant supported travel to Santa Cruz, Bolivia and Lima, Peru to develop key partnerships needed for future research and to conduct formative research with MSM and service providers in Bolivia.
Role: PI

Test and Treat: Kaiser Permanente (PI: LeGrand) 01/2014-6/2016
ASK4Care
This project developed, implemented and evaluated a peer-led intervention designed to improve retention in HIV care in three areas of North Carolina. In addition to completing a series of knowledge and skills building modules with peer leaders, participants could opt to receive text messages that supported retention in HIV care.
Role: PI

R43MH102096-01: NIMH (mPIs: Hightow-Weidman & McNulty) 09/2013-05/2015
Daily Dose: A mobile phone app to improve HIV medication adherence among young black MSM
This study developed a theory-based mobile phone game and social networking app designed to improve antiretroviral adherence among young, HIV-positive black men who have sex with men.
Role: Investigator

5R01MH091875-05: NIMH (PI: Galletly) 05/2013-01/2015
Immigration law and HIV prevention and care among immigrant Latinos
This supplemental multi-site study examined the influence of immigration and HIV exposure laws on behaviors related to HIV prevention and care among HIV-infected and uninfected Latino immigrants.
Role: Site-PI

R01MH093275-01: NIMH (PI: Hightow-Weidman) 09/2011-06/2017
HealthMpowerment.org: A novel mobile phone and Internet intervention for young black MSM/TWSM
This study tested HealthMpowerment.org (HMP), an internet and mobile phone HIV/STI intervention for young HIV infected and uninfected black MSM/TWSM in a randomized controlled trial.
Role: Investigator

AIDS United (PI: Walker) 08/2011-07/2013
North Carolina Access to Care Initiative: Positive Charge Initiative
This project utilized a network of peer educators at three geographically diverse NC sites to identify and bring primarily minority individuals who know their HIV+ status but are not engaged in medical care into care.
Role: Evaluator

Duke University CFAR (mPIs: LeGrand & Reif) 01/2011-04/2012
Collaborative HIV/AIDS Substance Use Treatment Development Project
This study used a community based participatory research approach to develop a substance use treatment intervention for individuals with HIV and substance use issues in the Mecklenburg County, NC area.
Role: mPI

1 SP016442-01: SAMHSA (PI: Hendricks) 09/2010-08/2015
Youth Education and Prevention Network (YEP)
This SAMHSA Ready-To-Respond initiative provided: 1) the *Let's Talk* adolescent Substance Abuse/HIV prevention program for African American youth in Durham, NC; 2) a peer program training HIV-positive adolescents of the Duke Pediatric Infectious Diseases Clinic; and 3) rapid HIV testing services in Durham, NC.
Role: Evaluator

DGHI Travel Grant Research (PI: LeGrand) 09/2010-03/2011
Sex Work and Orphanhood- Partnership in India
This grant supported travel to Hyderabad, India to develop partnerships and conduct qualitative research on the association between orphanhood and entry into sex work in India.
Role: PI

The Duke Endowment and Cape Fear Memorial Foundation (PI: Rawlings) 09/2009-09/2012
Let's Talk HIV Prevention Initiative
This project provided a faith-based HIV/STI and substance abuse prevention program for teens and their caregivers in rural communities to increase HIV/SA knowledge, parent-teen communication, and HIV testing and to reduce risk behaviors.
Role: Evaluator

National AIDS Fund, Kate B. Reynolds Charitable Trust, Blue Cross Blue Shield of North Carolina Foundation, Duke Endowment, and North Carolina Health and Wellness Trust Fund
(PI: Walker) 10/2009-09/2011
North Carolina Community AIDS Fund
This project created a collaboration of North Carolina HIV funders to develop a statewide approach to HIV prevention and care. NC-CAF re-granted funding for prevention and care initiatives across the state and provided technical assistance to agencies that provided HIV services.
Role: Evaluator

MH082686-01A2: NIMH (PI: Reif) 08/2009-07/2011
Collaborative HIV/AIDS Mental Health Treatment Project (CHAMP)
This study used a community based participatory research approach to develop an in-home mental health treatment program for individuals with HIV and tested whether participation in the program was associated with trends toward greater motivation for addressing mental health issues and reduction in psychiatric symptoms, substance use, and HIV risk behavior.
Role: Investigator

Children's Investment Fund Foundation (PI: Whetten K) 05/2008-10/2013
FCFC Monitoring and Evaluation Consultancy for Malawi (MOVE)
This study provided a longitudinal, evidenced-based, participatory evaluation of a program designed to establish a collaborative, replicable, and sustainable model of prevention, treatment, and care for vulnerable children and their families.
Role: Evaluator

Elton John AIDS Foundation (PI: Whetten K) 05/2008-10/2013
Cambodia Orphan Project Evaluation (COPE)
This study evaluated the outcomes of Save the Children Australia's intervention for orphans and children made vulnerable by HIV and their community-living caregivers in Cambodia using a CBPR approach.
Role: Evaluator

1 SP13283-01: SAMHSA (PI: Hicks C) 09/2005-09/2010
First Signs: Integration of Prevention in Primary Care Through Training, Testing and Education
This project integrated and evaluated a comprehensive program of HIV/substance abuse/hepatitis prevention and HIV testing into primary care settings.
Role: Evaluator

OTHER EXPERIENCES AND PROFESSIONAL MEMBERSHIPS

Member
Duke LGBTQ Task Force 2017 – present

Co-Chair
Duke Global Health Institute Diversity & Inclusion Committee 2016 – present

Member
Duke Appellate Board; Durham, NC 2015 – 2016

Member
Duke University mHealth Working Group; Durham, NC 2012 – 2015

Member 2010 – present
Duke University Center for AIDS Research; Durham, NC

Research Contractor 2008
Duke Center for Health Policy; Durham, NC

Epidemiologist 2007 – 2010
Mecklenburg County HIV/AIDS Council; Charlotte, NC

Evaluator 2007 – 2008
Metrolina AIDS Project Charlotte, NC

Facilitator 2007 – 2008
My Children, My Sisters, Myself HIV Prevention Program
National AIDS Fund; Gastonia, NC

Evaluator 2006 – 2008
Regional AIDS Interfaith Network; Charlotte, NC

Member 2004 – 2005
South Carolina HIV Community Planning Group; Columbia, SC

Member 2001
Catawba Indian Nation AIDS Task Force; Rock Hill, SC